

University of Arizona
School of Architecture

Architecture Program Report for 2016 NAAB Visit for Continuing Accreditation

addendum 1* 2015.11.01

addendum 2† 2016.01.26

addendum 3‡ 2016.02.01

Bachelor of Architecture [174 credit units]

Year of the Previous Visit: **2009**

Current Term of Accreditation:

09 March 2010: “At the February 2010 meeting of the National Architectural Accrediting Board (NAAB), the Directors reviewed the Visiting Team Report for the University of Arizona, College of Architecture and Landscape Architecture. As a result, the professional architecture program:

Bachelor of Architecture

was formally granted a six-year term of accreditation. The accreditation term is effective January 1, 2009. The program is scheduled for its next accreditation visit in 2015.”

Master of Architecture [prerequisite Bachelor's degree + 102 credit units]

Year of the Previous Visit: **2013**

Current Term of Accreditation:

10 March 2014: “At the February 2014 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the Visiting Team Report for Initial Accreditation (VTR-IA) for the University of Arizona, School of Architecture. As a result, the professional architecture program:

Master of Architecture

was formally granted a three-year term of initial accreditation. The accreditation term is effective January 1, 2013. The program is scheduled for its next accreditation visit in 2016. As stated in the 2012 Procedures for Accreditation, Amended, following an initial three-year term, at the next scheduled review, the program must receive an eight-year term of accreditation.”

* addendum 1: Addressing items requested by Team Chair Nathaniel Belcher, set in blue type.

† addendum 2: Addressing questions about updated faculty and staff data, set in green type.

‡ addendum 3: Addressing enrollment target request and other syntax suggestions from UA Office of Academic Affairs; addressing questions from NAAB Team about how history and theory are taught, set in lavender type. SPC Guide updated to correct out-of-sequence course in M.Arch.

Submitted to: The National Architectural Accrediting Board

Date: 28 SEPTEMBER 2015

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[We have endeavored to deliver this APR in the spirit of the new specifications set forth in the NAAB *Guide to the 2014 Conditions for Accreditation and Preparation of an Architecture Program Report*: as an abbreviated narrative outline with links to detailed information elsewhere.]

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Section 1. Program Description

I.1.1 History and Mission

the University

History: Founded in 1885 by an act of the thirteenth Territorial Legislature, the University was created with an appropriation of \$25,000 but no land (thus setting a precedent of legislative support that survives to this day). The first building was erected in 1891; that building, is now the heart of campus, listed in the National Register of Historic Places, and was restored (2013-2014) to house the President and Admissions.

The University of Arizona is *the* Land Grant University for the State. The first Baccalaureate degrees were conferred in 1895, the first Masters in 1903, and the first Doctorates in 1922. In 1915, the University reorganized into three Colleges; additional colleges were regularly added up to 2005.

Today: The University now offers 128 undergraduate, 132 master's, 97 doctoral, 4 specialist, and 3 first-professional degree programs through 21 Colleges and 23 Schools. In AY 2014-2015 the University awarded 6,370 Baccalaureate, 1,706 Masters, 475 Ph.D.s, and 395 first-professional degrees.

The University of Arizona is one of the top 25 research universities in the nation (18th among public universities; 27th among all institutions in research and development funding: \$597,988,000 in FY2011).⁴ It is one of 64 institutions recognized by the Association of American Universities.⁵

Enrollment in Fall 2014 set a record at 42,236 (approximately 78% undergraduate); students from every state and 112 foreign countries attend. The University currently employs 12,479 faculty and staff members.⁶

The University is comprised of the Tucson campus, grown from the original 40 acres of the 1890's to 387 acres and 184 buildings, including the Arizona Health Sciences Center with the University Medical Center and University Physicians. It reaches people throughout the state via the Science and Technology Park; the Cooperative Extension Service; the Phoenix campuses, including a new medical school, and UA South, a branch campus in Sierra Vista.

Culture + School Of Architecture: Soon after the inauguration of President Ann Weaver Hart in 2012, the University developed a new strategic plan, *Never Settle*.⁷ Stressing applied learning, it features two characteristics inherent to the School: community outreach and 100% Engagement,⁸ which challenges students to have experiences beyond the classroom that enrich professional and personal growth. The School is ahead of many departments in both endeavors. The University has placed increased emphasis on teaching by requiring a teaching portfolio in P&T dossiers; also a strength of the School. Although professional schools can be out of place in Research I institutions, this College is well situated in the values of the institution.

the College of Architecture, Planning, and Landscape Architecture

Architectural engineering was offered by the Department of Civil Engineering from 1915 to 1918. In 1956 AIA Southern Arizona campaigned to start an architecture school. In 1958, Sidney W. Little, Dean of Architecture and Allied Arts at the University of Oregon, became the Dean of the College of Fine Arts and Head of the newly created Department of Architecture. Classes began in fall 1958; in May 1963 provisional accreditation was granted; and in September 1963 the Department was authorized to become a separate College of Architecture effective July 1, 1964. An Architecture building was completed in 1965. It underwent major additions in 1970, 1979 and 2008.

A graduate program was established in 1973 with the first non-accredited M.Arch degree conferred in 1976. During the late 1970s and 1980s, the College developed an emphasis on the environmental concerns of arid regions and historic preservation. The Architecture Laboratory was incorporated in 1984

⁴ Center for Measuring University Performance, "The Top American Research Universities, 2013 Annual Report," <http://mup.asu.edu/MUP-TARU-Natl-1-25.html>

⁵ Association of American Universities, <http://www.aau.edu/about/default.aspx?id=5474&terms=university+of+arizona>

⁶ Arizona Board of Regents, <http://factbook.arizona.edu/2011-12>

⁷ <http://neversettle.arizona.edu>

⁸ <http://ose.arizona.edu/100-engagement>

for research. In the early 1990s, the Roy P. Drachman Institute for Land and Regional Studies became a Center within the College, focusing on research and community service.

In the 1990s, the Architecture Library budget was transferred to the University Library. To address budget cuts in the 2000s, our Library was absorbed into the Fine Arts Library; then to the Sciences library.

A graduate program in Urban Planning was started in 1963 in the College. Because it focused on public policy rather than physical planning, it was transferred to the College of Business and Public Administration (1970). In 1991, the program was placed in the Interdisciplinary Programs of the Graduate College. In July 1997, Architecture was joined by the Planning and Landscape Architecture programs, becoming the College of Architecture, Planning, and Landscape Architecture (CAPLA). In Spring 2003, the University identified the School of Planning for elimination to address budget cuts. On July 1, 2003, it was moved to the Graduate College for final disputation (which never occurred), leaving the College of Architecture and Landscape Architecture (CALA). In 2005, the School of Landscape Architecture was identified for elimination, again to address budget cuts; it survived. In 2008, when Landscape Architect Janice Cervelli, FASLA, FCELA became Dean, she brought Planning back; the name was changed and restored to CAPLA in 2014.

Today: Committed to sustainable design, planning, and management for arid regions, CAPLA helps advance the University's mission of environmental sustainability, entrepreneurialism, and health. As a professional college, its Core Mission is the training of architects, landscape architects, and urban planners to work effectively in the severe local conditions and to transport this knowledge to less extreme places. As a campus leader in community engagement, CAPLA advances the University's historic land grant mission through design and planning assistance to diverse communities throughout the state. CAPLA is one of the smallest colleges at the University; the School is the largest unit in the College.

School of Architecture

HISTORY

This School is one of a minority of US programs that retained its Bachelor of Architecture through the cultural changes of the 1970s and 1980s. When most schools converted to the 4+2 system, with its greater emphasis on liberal arts, the UA retained its traditional emphasis on professional practice.

When Álvaro Malo was appointed Director in 1998, he was charged with reinvigorating the School's mission, goals, and curriculum—which he did. Many changes were instituted, most notably in Foundation, the Building Technology sequence, the elective offerings, and in the B.Arch Capstone. The culture of the School became more philosophical and less influenced by professional practices.

At the end of AY 2004-2005 Director Malo stepped down and was succeeded by four interim Directors over five years, resulting in the hire of Robert Miller as Director in June 2010. Miller undergoes his first five-year term review coincident with this accreditation review. Miller's primary initiatives have been: making the curriculum digitally literate; introducing architectural theory (in addition to history); improving student culture and student educational partnership; measuring the success of the pedagogy by student performance; rebuilding the School's relationship with practitioners, the AIA, and the other architecture schools in the State; raising awareness of the School with the Provost, Planning, Design & Construction, and among other departments; and emerging from repeated budget cuts with an increasingly strengthened program.

M.Arch History: Prior to Miller's arrival, the School committed to the creation of an accredited M.Arch program (without new funding). There were NAAB visits in 2009, 2011, and 2013. The first class was admitted summer 2010, graduating Spring 2013. The degree was granted Initial Accreditation on 10 March 2014, effective 1 January 2013.

MS.Arch History: An unaccredited M.Arch that had operated since 1973 (SEE: College History, above) was converted to an MS.Arch as a condition of Candidacy for the new accredited M.Arch. In so doing, its emphasis was changed to research under the proposition of a post-professional degree with applied research in the School's focus areas. Design and Energy Conservation and Heritage Conservation are the only focus areas with sustained records; other research areas are being started.

MISSION

The School of Architecture is devoted to professional education with a sensibility honed in the edge conditions of an extreme climate on a major international border. Located in the oldest continuously-

inhabited city in the United States, the School combines a culturally rich past with cutting-edge environmental research in its place-based design approach to the arid environment. The School's mission is aptly described under Teaching, Research, and Service.

Teaching

The School of Architecture, like all accredited architecture schools, has as its primary mandate the education of students for professional careers. Educational standards for accredited architecture schools, set by the National Architectural Accrediting Board, Inc. (NAAB), are performative: schools not only choose how and when to address them, we decide what pedagogical inflections to give the subjects. Consequently, our curricula have these thematic emphases:

Critical Practice: Relative to other schools in the United States, we claim the terrain of “critical practice,” meaning that we take more seriously the job of professional education and, beyond that, the training of young architects who will significantly contribute to the advancement of our discipline. This has become particularly relevant over the past decade, during which the global economic recession coupled with a digital revolution in design and construction has fundamentally changed the way architects work and buildings are delivered. Significant change has been required to keep up with professional developments in the field. *Our School values professional culture.*

Extreme Climate Design: Using our own Sonoran Desert setting, we teach students to design to its extreme conditions; then, we teach them to extrapolate these skills to other climates. Although the architectural academy is aware of the threat that global climate change poses to civilization as we know it, relatively few schools teach both the leading sustainable principles while also stressing simple fundamental strategies, such as passive climate design, downsizing programs, and getting more architecture with fewer materials. Our setting offers the perfect opportunity to focus on radical climate; moreover, climatologists predict that arid climates will cover more of the globe, making our work increasingly relevant. *Our School values design that is highly climate responsive.*

Sustainability: Because the construction and operation of the built environment is responsible for 48% of global greenhouse gas emissions, we are vigilant about first instilling an ethical orientation, i.e., the architect's responsibility for transforming the built environment, and then teaching the technical and aesthetic lessons that support those ethics. Technology and strategies for sustainable will change; ethics should not. We are the first school of architecture in the nation to adopt a sustainability protocol that spans every studio in an accredited degree. *Our School values environmental and professional ethics and sees them as increasingly important in next-generation architects.*

Hands-on Education: Because professionals make, rather than merely think about, the built environment, we have developed a hands-on pedagogy: learning by doing. From our innovative structures curriculum (in which students build-and-break components in order to develop an intuitive sense of building physics) to our design/build studios (in which students build furniture, shelters, and small buildings), our educational environment is analogous to the world of practice and construction. With one of the best MaterialsLabs in the country, we are well equipped for this approach. *Our School values experiential, as well as intellectual, learning.*

Settlement: Because density has a huge impact on carbon footprint, the design, not just of buildings but of settlement, is a primary concern. Arizona's population will double by 2040; our Sun Corridor, the developing metropolis between Tucson and Phoenix, is the second fastest growing of 11 mega-regions in the nation. Growth-related development of this magnitude in a fragile desert ecology will require a new, compact, and more conservation-oriented approach—not traditional sprawl. *Our School casts its mission within the needs of our region and values public service.*

Research

Our research and scholarship is centered around [five](#) primary endeavors:

Energy: The School has a long-standing research program in energy design and conservation. Since the 1970s, we have developed alternative energy and conditioning strategies: 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. The thrust of this effort resides in the MS.Arch—Design & Energy Conservation program, which does applied research and service contracts. Interdisciplinary research is pursued in collaboration with the UA Office of Arid Land Studies and Dept. of Aerospace & Mechanical Engineering.

Facilities include a heliodon (24-ft. hemisphere for solar simulation), an outdoor thermal comfort test site with advanced instrumentation and state-of-the-art wireless sensor technology, a boundary-layer contractionless wind tunnel, and an Artificial Uniform Overcast Sky Simulator for daylight testing and photometric measurement.

Founded in 1986, House Energy Doctor (HED) program has provided energy audits and sustainability recommendations for over 120 residences, 32 commercial buildings, 9 institutional buildings, and 5 federal buildings in Arizona. In the past five years, this has included three dormitories (UA Residence Life office—2011), three class, research, and laboratory buildings (UA Facilities Management—2012), the Army and Air Force Exchange Service Base Exchange Building (Davis-Monthan Air Force Base—2010), Office Building 7000 (Navy Operational Support Center—2011), and 12 buildings on 3 campuses at the Petrified Forest National Park (U.S. National Park Service, Holbrook, AZ—2008-2009). This year, the HED begins work for the National Park Service at Organ Pipe Cactus National Monument.

Place + Wellbeing: Founded in 2013, The Institute for Place and Wellbeing is a joint venture between Arizona Center for Integrative Medicine (AzCIM), the College of Medicine, CAPLA, and the Institute of the Environment (IE). Its mission is to explore and measure the effects of built space and the physical and green environment on human health, emotions, and spirituality. The School has an open search for a tenure-track position to advance this collaboration and start a certificate program and an MS.Arch focus degree in Health and the Built Environment. *Based on a 2014-2015 search, a finalist accepted our offer in July 2015, contingent upon a spousal hire. The spouse has interviewed on campus and has been negotiating with another unit at the UA. Meanwhile, the finalist is working as a paid consultant to the IPW team on the design and construction of a demonstration pavilion at the AIA National Convention in Philadelphia 2016. The Dean decided to suspend further activity until this possibility is resolved.*

The IPW team was chosen by the AIA, the AIA Foundation, and ACSA as one of 11 charter members of the AIA Design & Health Research Consortium, the purpose of which is basic research on how design affects public health. We were cited as offering “the best potential for affecting policy across a wide swath of issues at the intersection of the built environment and public health.”

Pedagogy of Practice Education: The School has a growing body of scholarship, funded research, teaching, and community service in design/build projects. Building on a tradition that began in the late 1990s, we have a portfolio of completed service-learning projects that comprise a number of small buildings and landscape installations. *We have an open tenure / track search for a junior design/build faculty intended to eventually succeed a senior professor who works in this area. The initial search in 2014-2015 did not result in a hire; that search was suspended this year because of resource uncertainty and faculty workload. It will be restarted in 2016-2017.*

We also have ongoing funded research:

Thinking While Doing Consortium (2013-2018): In collaboration with universities across North America, the SoA is working on a design/build research program through a Partnership Grant (\$2,483,150 CAD) from the Social Sciences and Humanities Research Council of Canada called “Thinking While Doing: Connecting Insight to Innovations in the Construction Sector.” The partnership is interdisciplinary in three areas. The DBG (or “design/build group”) focuses on research and the creation of building technology by the parallel design and construction of structural typologies in different climates; the DBI (or “insight group”) is generating the first research into design/build pedagogy; and the DBX (or “design/build exchange”) is building a digital medium through which design/build programs around the world can collaborate and share knowledge. Partners include the following universities: Dalhousie, UA, North Carolina at Charlotte, Toronto, Alberta, King’s College, and Manitoba, as well as Parks Canada and the ACSA. This North American consortium is affiliated by a parallel effort in Europe.

Emerging Materials: In addition to supporting teaching and outreach work, we are working to develop research activity into fabrication technologies and emerging materials through our MaterialsLab. One of our early unfunded ventures is a concrete printer. We also have ongoing funded research:

Developing a Sustainable Material and Structure for Food Storage and Climate Change Adaptation in Arid Lands (2014-): To develop a carbon-negative iron-carbonate material called FerroRock, the project includes the design, construction, and study of several experimental structures for the control of internal conditions including temperature, humidity, and air flow. Each structure will be evaluated for its structural integrity and its function as a semi-closed system for passively maintaining habitable interior conditions.

The application of this research will be for large-scale food and seed storage, winter crop production in greenhouses, and possibly housing in arid environments. Partners: Dr. David Stone and Dr. Casey Kahn-Thornbrugh, Co-PDs, Tohono O'odham Community College, Assistant Professor Chris Trumble and Dr. Supapan Seraphin, Collaborators, University of Arizona. Funding: \$200,000 United States Department of Agriculture (USDA).

History + Theory: The School maintains active scholarship in the history and theory of architecture, currently with three books in production (two under contract) by tenure-track faculty.

Associate Professor Lisa Schrenk, Ph.D. has a contract with the University of Chicago Press to publish *An Architectural Laboratory: The Oak Park Studio of Frank Lloyd Wright*. Based on research she began while Education Director for the Frank Lloyd Wright Home and Studio Foundation, the book will explore the design activities and educational environment of Wright's early studio, including how the architect used the physical structure as an experimental laboratory for his innovative design ideas.

Service + Outreach

The School undertakes a substantial outreach effort. Recent projects (described elsewhere) include:

- House Energy Doctor program
- five DDBC Houses: The Drachman Design-Build Coalition sustainable / affordable houses (2006-).
- Rose Pedestrian Bridge, Rose Elementary School, City of Tucson (2009).
- four Bus Shelter Prototypes, City Of Tucson (2010–2011).
- two Bus Shelters, City Of Marana (2011–2013).
- Arizona Children's Association (AzCA) playground (2011–2013).
- Sustainability Laboratory and Urban Garden (SLUG), Tucson City High School (2014-2015)
- CAPLA West Face (PENTAPUS): landscape + gridshell construction (2015-2016)
- UAD Sustainable City Project (2012–).
- Camp Architecture (2010–).

I.1.2 Learning Culture

We maintain a positive and respectful learning environment that encourages optimism, respect, sharing, engagement, and innovation; we encourage collaboration, cross-disciplinary learning, and shared knowledge; we encourage the practice of architecture, not run as a sprint, but prosecuted like a marathon, with iterative learning and time well-managed.

studio culture

School Policy on Studio Culture:⁹ The students and faculty have adopted a Studio Culture statement that expresses our commitment to Intellectual Diversity, Theory and Practice, Collaborative Design, Constructive Criticism, Design Reviews, and Time Management. The statement was revised and adopted by students on 26 March 2012; it was adopted by the SoA Faculty on 26 March 2012. The Policy is publically available on the web.

Director's Policy on Studio Culture:¹⁰ In support of the School Policy, the Director's policy makes more specific implementation requirements that address equity, fairness, time management, and healthy practices. Its principal points:

- Studios have a minimum of four graded products per semester, due near the 2nd, 4th, 8th (mid-term), and 16th (final) week of the term. *This insures that students know where they stand at all times and encourages an evenly paced iterative production.*
- Studios collect projects at least 12 hours prior to the start of a review; where multiple sections work on a common project, the collection deadline is the same for all students regardless of presentation schedule. *This insures that students are rested prior to juries and discourages all-nighters; it insures equity between sections.*
- Students are required to attend their peer's presentations; every student is required to have a presentation partner, charged with a) giving time cues and b) taking notes. *This encourages a sense of teamwork and builds collaboration skills.*

⁹ <http://capla.arizona.edu/soa-policy-studio-culture>

¹⁰ <http://capla.arizona.edu/soa-directors-policy-studio-culture>

This policy is available on the web and parts of it have been written into the School's syllabus template. Because all studios have this common underpinning in their syllabi, the policy is consistent (and consistently applied) across the School.

technology

Our policy on technology asks students to pay for expendables while the School covers the cost of equipment purchase; all equipment has pay-per-use technology. This policy was developed with input from the Dean's Student Advisory Council (now, the CAPLA Student Council). Graduate students met with the Director and IT staff multiple times from 2011-2013 during implementation. As of 2011-2012, the computer lab became available 24/7 to all; as of 2012-2013, the laser cutters are available 24/7 to all. Student concerns about technology, which were substantial before 2013, have largely been resolved except for servicing equipment during non-business hours. To handle this, the College employs student workers to be on-call after hours; the IT staff is on alert during "charrette weekends."

Technology information is available along with associated training documents, on the web.¹¹

extra-classroom learning

CAPLA LECTURE SERIES

Since 2010-2011, the College has run a cross-disciplinary lecture series. Coordinated by Architecture faculty, the series includes guest speakers from many disciplines who are selected by a committee of students and faculty from the College's three disciplines. Since 2014-2015, AIA-Southern Arizona has paid for 1/3 of the series and been on the selection committee. We provide continuing education credits to encourage the participation of professionals.¹²

AIAS

The American Institute of Architecture Students has a strong Chapter with broad participation. It is particularly good at identifying and developing emerging leaders, which has kept the Chapter growing in strength and quality over the past five years.

Out of 349 students in our accredited programs in 2014-2015, the AIAS captured 71 members (20%):

	AIAS participation					
	Foundation	2nd YR	3rd YR	4th YR	5th Yr	M.ARCH
class size	86	53	67	51	42	25
AIAS members	24	11	15	13	3	5
percent	28%	21%	22%	25%	7%	20%

That Chapter sponsors several programs:

Mentoring

This program pairs 1st Years with 4th - or 5th-year students, who offer continuing advice as their mentees move through the degree. The program includes a 1st Year Social Mixer with games and activities; a 1st Year Presentation Workshop to prepare freshmen for their first final presentation; and a general Q&A session, led by a panel of students from 2nd to 5th Year, at the first Foundation lecture.

Portfolio Charrettes: AIAS portfolio charrettes, two per year, are scheduled to precede the SoA Job Interview Fair (February) and provide students with feedback on their CVs and portfolios. With featured local practitioners, students get input from local professionals (and contacts).

AZ AIA State Conference

AIAS members are provided transportation and free entry to the AIA State Conference, a valuable networking and educational experience.

Freedom by Design

A non-profit sub-organization of AIAS, Freedom by Design provides accessible retrofits for needy local residents or accessible, sustainable, and/or quality upgrades for community non-profits. Entirely managed

¹¹ <http://capla.arizona.edu/student-printing>
<http://capla.arizona.edu/student-software>
<http://capla.arizona.edu/students/computer-requirements>
<http://capla.arizona.edu/student-server>
<http://capla.arizona.edu/facility/material-lab/digital-lab>

¹² <http://capla.arizona.edu/lecture-series>

by SoA students, the program allows students to work with clients, raise financial and in-kind resources, and collaborate with professionals in resolving accessibility issues.

>In 2014-2015 Freedom by Design created reception furniture for the non-profit Literacy Connects, which teaches children and adults to read. The new reception desk has multiple heights and a variety of uses for all children, adults, and volunteers.

>In 2013 they designed and built an outdoor deck and garden center for Robert Cartwright, a 33-year-old bilaterally paralyzed stroke victim. >In 2012 they collaborated with the DIRECT Center for Independence on the design and construction of a residential wheelchair ramp for an elderly disabled couple in South Tucson. They obtained donated materials and raised money from construction and architecture companies as well as in-school fund-raisers.

recruiting

AIAS fields a group that helps at SoA student recruiting events. It is also helping the SoA implement a new high school education course, piloted in Fall 2015, that will introduce students to architecture and help those interested in applying for an architecture degree.

architecture culture

AIAS runs social events so students balance their architectural education with social activities, including a Dodgeball Tournament, Faculty-Student Mixers, and Beaux Arts Ball.

USGBC/SG

The US Green Building Council Student Group (USGBC/SG) was formed in 2011, averages 20 members (the majority from outside CAPLA), and is affiliated with the local professional organization. USGBC/SG has monthly meetings and bi-weekly executive committee meetings. Speakers, such as the President of the UofA Office of Sustainability and local professionals, make presentations on sustainability issues; the Group has toured Biosphere 2 and LEED projects throughout Arizona.

Community service projects have included support for Cyclovia (the annual event to promote bicycling and green transportation); Tucson Unified School District (TUSD) and the Drachman Montessori Elementary School (participating in the Bio_Sit+Grow project); and Habitat for Humanity (design and energy modeling for a Habitat house and a roof “fly” shading system to lower the energy use). For Pima Community College, USGBC/SC is planning to provide energy auditing services.

USGBC/SG has had an impact at CAPLA (SEE: Stewardship Of The Environment / Facilities, below).

HISPANIC ARCHITECTURE CLUB

Founded Fall 2015, the Hispanic Architecture Club is intended by its faculty sponsor, Eduardo Guerrero, to foster an educational and social culture within the School that will appeal those of, and interested in, Hispanic culture.

CAPLA STUDENT COUNCIL

In 2013 Dean Cervelli created the CAPLA Student Council, comprised of the leadership of all [student](#) organizations in the College. The Student Council advises the Dean on matters of interest to students.

academic integrity

The College has a Code of Conduct, which is signed by incoming students and faculty.¹³ CAPLA's Guidelines for academic integrity are posted on the web.¹⁴ Academic integrity is taken seriously by the College; there are a number integrity cases each year which are handled by Associate Dean Mary Hardin in collaboration with the Dean of Students.¹⁵ Most of these are by lower-level undergraduates.

SOA POLICY

The School has [its](#) own, more specific, plagiarism policy that is included in every syllabus. It clearly specifies expectations for citation, including in studio work.¹⁶

GRADE APPEALS

Every SoA syllabus informs students of their right to a grade appeal, with a link to the process.¹⁷

¹³ <http://capla.arizona.edu/capla-student-code-conduct>

¹⁴ <http://capla.arizona.edu/capla.arizona.edu/academicintegrity/add/page>

¹⁵ <https://deanofstudents.arizona.edu/student-code-conduct-student-faqs>

<http://deanofstudents.arizona.edu/policies-and-codes/code-academic-integrity>

¹⁶ <http://capla.arizona.edu/soa-plagiarism-policy>

I.1.3 Social Equity

the University

The University is an Equal Opportunity and Affirmative Action EEO/AA - M/W/D/V Employer.¹⁸ In November 2010, the State of Arizona's Proposition 107 banned "affirmative action programs that give preferential treatment to or discriminate against any individual or group on the basis of race, sex, color, ethnicity or national origin in the operation of public employment, public education or public contracting." While this closed the University's preferential recruiting and hiring programs that specifically targeted diversity, the University actively encourages equality in selection and desires to have demographic compositions that represent those of the State.

faculty

COMPOSITION

For 2015-2016, the School's tenured and tenure-track faculty of 12 persons is 58% female with no self-identified ethnic minorities (25% declined designation). The non-tenure-track (NTT) faculty of 34 persons is 39% female with 10% ethnic minorities 9% Hispanic and 3% multi-racial (6% declined designation). Two graduate students have full teaching responsibilities; one is female and one is foreign. Overall, our 45 member faculty is 44% female; 80% white, 6% ethnic minority 6% Hispanic and 2% multi-racial, and 13% declined designation.

There has been a concerted effort to improve the gender balance of the faculty. In 2006, the School's tenured and tenure-track faculty was 15% female and 15% minority; overall, it was 30% female and 10% ethnic minority. At the last NAAB visit in 2013 (M.Arch accreditation), the overall faculty composition was 31% female; 82% white, and 8% ethnic minority (6% declined designation).

Nationally architecture faculties in 2012-2013 were 29% female (up only 1% from two years previous whereas we have improved 13% in the same period). Ethnic minorities made up 26% of national architecture faculties, far more diverse than our faculty.¹⁹

SALARIES

Equity in faculty pay by gender is equally important. In the past five years, women have improved relative to men in their compensation at the School.

ave salary, by rank/gender				
UA SoA 2015-2016	Professor	Associate Professor	Assistant Professor	NTT ave per CU
male	\$129,787	\$71,500	\$69,190	\$1,844
female	\$110,911	\$76,272	\$70,750	\$2,122
female:male	85%	107%	102%	115%

Across all ranks except full Professor, woman average slightly higher average salaries than their male counterparts. Because the small size of the tenure/track faculty (twelve across all ranks), salary comparisons across ranks can be misleading. Our data is further skewed because three of four full professors have at least partial administrative appointments. (The NAAB does not publish gender pay differentials for comparison.)

PLAN

We believe our gender diversity reflects the general population and is adequate; we recognize the need to recruit more minority teachers who are highly qualified. Our diversity numbers are probably lower than the actual faculty composition, given the number who decline designation and they way faculty self-identify. We will continue to recruit a diverse range of teachers, provided they are qualified.

students

The recent recession hurt Architecture enrollments, which this year are starting to recover. The UA was hit harder than other NAAB accredited architecture programs. Between 2010 and 2014, total enrollment in

¹⁷ http://capla.arizona.edu/sites/default/files/file_uploads/CAPLA-GRADE_APPEAL_FORM.pdf

¹⁸ <http://hr.arizona.edu/policy/appointed-personnel/2.01>

¹⁹ 2014 Report of the National Architectural Accrediting Board (Washington, DC: National Architectural Accrediting Board, Inc, 2015), Part III, p 5-7.

accredited architecture programs decreased by 10% and between 2011-2014 the rate of decrease has consistently been around 3% per year—so a drop of about 20% overall.²⁰

B.ARCH: Freshman enrollment dropped 50% in 2013 from a high of 200 students in 2012. This year they are up 25% over last year's low of 84 to around 125 (actual number counted on drop/add date).²¹

In 2013, the architecture student body was approximately 50% white; in the past two years, white undergraduates increased by 10% while non-whites increased only 2% (the differences made up by the 35% who do not specify ethnicity). US citizens made up 85% of our students in 2013-2014; 90% this year. The only significant non-US nationality is China/Far East: 11% dropping to 9% this year. Out of State students entering the School have increased by 4% over two years. Females entering the B.Arch over the same period decreased from 50% to 31% but females graduating increased from 34% to 45%.

M.ARCH: The M.Arch population has hovered at 30 students of which 30% were female and 70% non-resident, over the last two years. It dropped from 61% to 40% white over the same period. Foreign citizens increased from 29% to 33%. There was a population dip last year, which was made up in 2015-2016.

PLAN

We believe that the Great Recession has led to generally whiter and more male populations leading the return to architecture school. Our plan is to encourage diversity as we endeavor to grow our student populations back to healthy levels. Our target enrollments would optimize the capacity of our current facilities, faculty workload, and student/teacher ratios:

B.Arch enrollment targets							
year	pre-professional		professional phase				total
	fall start	spring start	2nd Year	3rd Year	4th Year	5th Year	
2015-2016							
continuing			47	46	60	46	
new	120	32					
subtotal		152	47	46	60	46	351
graduating						45	
target							
continuing			80	75	70	68	
new	200	40					
subtotal		240	80	75	70	68	533
graduating						65	

M.Arch enrollment targets				
year	M.Arch III	M.Arch II	M.Arch I	total
2015-2016				
continuing		5	9	
new	7	4	0	
subtotal	7	9	9	25
graduating			8	
target				
continuing		16	20	
new	20	10	4	
subtotal	20	26	24	70
graduating			23	

We have a pilot program, ARC 100, that will award 3-CU of Architecture elective credits starting this fall in a local high school; expanding the pilot will give us access to more diverse local populations. We are working on an articulation agreement with a highly diverse New Mexico community college, again giving us direct access to minority populations with an interest in the design professions. Most of our staff and faculty who recruit are female; they are joined by an AIAS recruiting team. Starting this fall, we are launching an Hispanic architecture club, whose faculty advisor is from Chile, which will strengthen minority sub-culture within the School.

I.1.4 Defining Perspectives

collaboration + leadership

PEDAGOGY

Formally, professional leadership and collaboration are covered as a topic in ARC 459/550c Ethics and Practice. It covers the notion of professionalism; the ethically-tricky relationship between architects and clients; the architect's highest responsibility to the public health, safety, and welfare; alternative forms of

²⁰ Ibid., Part I, p. 22.

²¹ The B.Arch is five curricular years. The Foundation (freshman) Year is pre-professional (though not pre-architectural) because it carries no NAAB Student Performance Criteria, or SPC, only Introductory SPC.

practice; and the architect's responsibility for addressing our environmental crisis and the 2030 Challenge. The course features case studies of ethical situations (from Cameron Sinclair and Architecture for Humanity to the Citicorp engineering crisis).

Leadership and collaboration are also partly addressed in ARC 227 + ARC 527 | Architectural Programming, in that it covers the Client Role in Architecture and Ethics and Professional Judgment as topics. The textbooks for these courses, *Programming for Design* by Edith Cherry, and *The Ten Faces of Innovation* by Tom Kelley cover these concerns.

Leadership and collaboration are more actively dealt with in our studios, the structure of which varies by degree:

B.Arch studios²²

In the Core Phase, students are introduced to working collaboratively by doing site research, precedent studies, or the design and construction of group site models in teams. Every Core studio has at least one limited group exercise. As required by the Director's Policy on Studio Culture,²³ students are required to work with partners in the development and presentation of their studio work.

In ARC 401—the last studio in Core—engineers from several disciplines are brought in to consult with the students on their comprehensive project. The work of the studio is also executed in collaboration with ARC 441 Contract Documents, which forces students to take and synthesize input from multiple sources, satisfying a diversity of requirements, in a single project.

In the Application Phase, the ARC 451a-b studios offer many opportunities for leadership and collaboration. Although not strictly programmed, the project types are mostly client-based outreach projects, including design/build and urban design service-learning work. Even the research-based and study-abroad options in this studio tier require collaboration, though not always formally. As a general principle, students in 451a-b studios are coached to work to their strengths so that teams become a synthesis of equivalent, but different, contributions.

M.Arch studios

The M.Arch develops in a similar manner to the B.Arch, but its shorter time means more of the total is needed to establish fundamental individual (Core) skills with less opportunity to work meaningfully in collaboration after that point. Like the B.Arch Core, most studios in M.Arch III-II have at least one team exercise. When we recognized the need to compress the time for individual core learning, we inserted a Milestone after M.Arch II and added collaboration and complexity to M.Arch I. Starting in Fall 2015, ARC 510f (the first studio in the final M.Arch year) was conjoined with ARC 451b, described above. The Master's Project sequence, while allowing individual skill to be developed and tested, is orchestrated with group research into site and place.

STUDENT ORGANIZATIONS

Our student organizations, described above, offer plentiful opportunities for leadership and collaboration.

COMMITTEES

All SoA committees, except those that deal with P&T, include student members. This provides an opportunity for them to observe, learn, and exercise collaboration.

design

Our studio sequences are carefully orchestrated to move from fundamentals (taught in controlled isolated conditions with few programmatic options that require specific skills) to real-world design (taught through large, complex, ambiguous projects with many programmatic options and practice-analogous methods). We refine these sequences *every semester*, not by fixed policies or rigid benchmarks, but through the degrees' respective curriculum walk-throughs.²⁴ At these end-of-semester faculty-only reviews, we compare high- and low-pass student work to the respective project briefs and syllabi; then we adjust the benchmarks expected of each studio. This also helps faculty members understand, both what they can expect from incoming students, as well as what they need to make sure students exiting *their* studios can

²² See II.1.1 Student Performance Criteria | milestones, p.53 for a description of how the degree is divided into three phases, separated by Milestones.

²³ <http://capla.arizona.edu/soa-directors-policy-studio-culture>

²⁴ See I.1.6.B. Curricular Assessment and Development | Curricular Walk-Throughs, page 20

do. Since we started this practice in 2011-2012, we have pushed our expectations for skill, understanding, and software competency *earlier* into the sequences; this has allowed us to achieve a broader degree competency with more complex and sophisticated work at the end.

We orchestrate the teaching of software through a matrix (similar to the NAAB SPC matrix).²⁵ This is revised in parallel to the studio sequence revisions.

professional opportunity

Students are prepared for the transition to licensure across the upper level of the accredited degrees.²⁶ Licensure is a lecture topic in ARC 459 / ARC 550c | Ethics and Practice and as part of the ARC 493 / ARC 593 | Internship, with its IDP elective (where the latest NCARB requirements are explained relative to the practice experience the students are getting). The elective Internship includes a work component (paid employment) and an academic component (managed through Journals) that includes guided enrollment into the IDP program, class-wide sharing of experience with the NCARB system, office tours and discussions with licensed *Architects* regarding practice and experiences with IDP and the ARE.

Our IDP Coordinator is a licensed Architect (CO), a firm principal, an NCARB Certificate holder, and one of three appointed "Architectural Licensing Advisors" in the state of Arizona. The AIAS hosts two Portfolio Workshops in preparation for the School's annual Job Interview Fair, which help the transition. The School regularly holds NCARB presentations to the students: NCARB's IDP Director Harry Falconer (Fall 2011); NCARB's Internship + Education Manager, Martin Smith (Spring 2014); and NCARB's Director of Examination Jared Zurn (Spring 2015). We have placed 42% of students from ARC 493 and 58% of those from ARC 593.²⁷

stewardship of the environment

SUSTAINABILITY PROTOCOL

The SoA is the first accredited program in the nation to implement a sustainability protocol across an entire studio curriculum. While we offer specialized courses in sustainability and individual studios with a sustainability emphasis, our sustainability rubric spans *every studio* in the B.Arch.²⁸ We will adopt a similar protocol to the M.Arch during 2015-2016. The protocol was applied to the Foundation studio in 2014-2015, and will be applied to successive year levels as that class moves through the degree.

Based on the International Living Future Institute's innovative certification program, the "Living Building Challenge," we adapted the Petal system to six sustainability focus areas: Environs, Water, Energy, Matter, Wellness, and Culturation. Student projects are evaluated for their effectiveness in each area, to increasingly rigorous standards, as the studios advance. The protocol won the 2015 Arizona Forward Environmental Excellence Award for Environmental Education/Communication.

Just as architects have to respond to sustainability protocols, SoA students learn to account for the sustainability performance of their designs, both in principle and with metrics, from their very first year of study.

COURSEWORK

Our curricula include many courses, both required and elective, that incorporate lessons in sustainability. Because we have made environmental concern central to the culture of the School, such courses tackle the more technical domains. They include:

	course	sustainability content
ARC 222	materials + methods 1	UNDERSTANDING: selecting and using sustainable building materials; recycled products; material-reducing strategies; low embodied energy for thermal-mass, reflectivity, and long-term durability; energy efficiency and sustainable design. ABILITY: principles of regional sustainable building design; sustainable building materials.

²⁵ B.Arch Digital Technology Matrix: <https://arizona.box.com/s/7qz2byfr00k7jo2z2v42s4fzhfp8ic30>

M.Arch Digital Technology Matrix: <https://arizona.box.com/s/a19r861qvgisjihdrko999i4q22jht2m>

²⁶ IDP B.Arch Integration: <https://arizona.box.com/s/czh5yu001vvzfw7vkzy1eufulchooljv>

IDP M.Arch Integration: <https://arizona.box.com/s/l7fr0vvsp7ezjwjtjhtzr8ka5744e652>

²⁷ For a chart showing Intern placements, see: <https://arizona.box.com/s/88ucftnl8p2f3i99vl4cbbilu37lxxsc>

²⁸ Sustainability Matrix: <https://arizona.box.com/s/6s55vu6914dvuyk98m8iwstqblkm27u6>

ARC 223	ECS 1 (fundamentals)	UNDERSTANDING: principles of sustainable design practices; passive, active, and integrated environmental performance strategies; theories and methods relating human behavior, thermal comfort, and the physical environment.
ARC 227	architectural programming	UNDERSTANDING: sustainability as it impacts the Client.
ARC 321	materials + methods 2	ABILITY: envelope system selection relative to energy and material resources; selection of interior/exterior materials relative to environmental impact and use.
ARC 326	site planning	UNDERSTANDING: Site factors affecting energy efficiency and land use, such as climate and zoning; sustainability certification systems, esp. Sustainable Sites portion of LEED.
ARC 421	ECS 2 (complex systems)	UNDERSTANDING: sustainable Environmental Control Systems; energy-efficient mechanical systems; waste-reducing fixtures and designs, energy-efficient electrical and lighting; rationale behind energy efficiency and sustainable decisions; recycled products; material-reducing strategies; low embodied energy for thermal-mass, reflectivity, and long-term durability. ABILITY: apply principles of regional sustainable building design; select sustainable environmental control systems.
ARC 461d / 561d	computer energy analysis	UNDERSTANDING: environmental systems that emphasize energy conservation and passive solar techniques, including human factors, climate/microclimate, and building envelope. Awareness: energy codes and requirements for minimum energy performance. ABILITY: site energy audits of existing structures; computer energy analysis of existing and proposed buildings to create energy efficient designs to approach net-zero consumption.
ARC 461e / 561e	sustainability + LEED initiative	UNDERSTANDING: Sustainable and High Performance Green building design; USGBC LEED program + principles. ABILITY: eQUEST Advanced Computer Energy Simulation; use of Local IECC Codes + National USGBC LEED®_NC rating system.
ARC 461p / 561p	enviro sci lab	UNDERSTANDING: Human Thermal Comfort, Architecture Daylight, Window and Building Shading, Natural Ventilation, and Sonic Analysis of Outdoor Spaces. ABILITY: advanced equipment and scientific apparatus to verify and inform design.
ARC 461r / 561r	environmental technology systems	UNDERSTANDING: selection and use of appropriate building material systems and environmental control systems for sustainability and energy efficiency; selecting energy-efficient building materials; building orientation, fenestration, HVAC systems, and natural lighting through energy simulation; energy efficiency and sustainable decisions. ABILITY: principles of regional sustainable building design; choice of sustainable building material systems and environmental control systems through energy performance analysis.
ARC 471f / 571f	intro to heritage conservation	UNDERSTANDING: conservation of the built environment as environmental/economic/social sustainability, e.g., adaptive use.
ARC 520b	materials + methods 1	UNDERSTANDING: energy conserving "alternative" wall systems.
ARC 520c	ECS 1 (fundamentals)	UNDERSTANDING: principles of sustainable design practices; passive, active, and integrated environmental performance strategies; theories and methods relating human behavior, thermal comfort, and the physical environment.
ARC 520d	materials + methods 2	UNDERSTANDING: thermal properties of building envelope materials; air/water/vapor transfer in envelop design; building envelopes relative to program, site, and diverse climates; sustainable environmental strategies for ventilation, lighting, acoustics, and climate mitigation; sustainable principles for envelope design and interior materials.
ARC 520f	ECS 2 (complex systems)	UNDERSTANDING: environmental systems that emphasize energy conservation and passive solar techniques, including human factors, climate/microclimate, and building envelope. Awareness: energy codes and requirements for minimum energy performance. ABILITY: site energy audits of existing structures; computer energy analysis of existing and proposed buildings to create energy efficient designs to approach net-zero consumption.

ARC 526	landscape analysis site planning	UNDERSTANDING: Site factors affecting energy efficiency and land use, such as climate and zoning; sustainability certification systems, esp. Sustainable Sites portion of LEED.
ARC 527	architectural programming	UNDERSTANDING: environmental design principles in site context + characteristics, built and natural contexts, minimal footprint, local and recycled materials, and passive strategies for building construction.

STUDENT ACTIVITIES

USGBC/SG: SEE: student organizations, above.

Zero Waste Project: The University's current annual waste diversion rate is 43%; waste audits suggest that nearly 80% could have been composted or recycled. Starting Fall 2015, CAPLA has joined the Zero Waste Project to reduce waste generated in the building, particularly the MaterialsLab. The Project includes an initial waste audit; student observation of waste/recycling practices; recommendations for improvement; and a follow-up audit to determine the effectiveness of changes.

FACILITIES

Studio Lighting Automation: In 2011, the Sustainability Team won an \$18,000 grant from the University's Green Fund to put the studio lights in CAPLA East on motion sensors.

Lutron/ECS Arizona Lighting Upgrade Program: In 2012, the USGBC/SG solicited and implemented a lighting upgrade to the college's auditorium. With additional funding obtained from the UA Green Fund, the project installed dimmable fluorescent lighting, lighting controls, vacancy sensors, and the ability to monitor, on-screen, real-time energy use—making the project an on-going educational program.

community + social responsibility

The School is actively engaged in the community, often in ways that overlap other initiatives.

COURSEWORK

ARC 451a/b: Design/Build and Outreach studios include:

The Drachman Design-Build Coalition (DDBC), five sustainable / affordable houses (2006-2014); regional AIA Design Award winner: Led by Professor Mary Hardin, the houses demonstrate principles of energy efficiency, provide housing for average-earner households in Tucson, incorporate research into innovative passive design strategies, and are case studies in affordable sustainable housing for arid climates.

Sustainability Laboratory and Urban Garden (SLUG), Tucson City High School (2014-2015): Supported by the UA Green Fund, the School worked with City High School and the Paolo Frieire Freedom School to design and build in downtown Tucson a Sustainability Laboratory and Urban Garden (SLUG), an adaptive reuse project that transforms an under-utilized alley between two historical downtown sites into an interactive teaching and learning environment.

Arizona Children's Association (AzCA) playground (2011–2013); regional AIA Design Award winner. Led by Assistant Professor Chris Trumble, students excavated and built a canyon-inspired playground of poured concrete, spanned by play structures.

City Of Tucson, four Bus Shelter Prototypes (2010–2011): Students designed a prototype bus shelter that could face any direction and be adjusted to protect waiting patrons from the direct sun while allowing the bus driver to see into the shelter. Then, they constructed and installed four demonstration shelters around Tucson, one facing each of the four cardinal directions.

THE UNIVERSITY OF ARIZONA DOWNTOWN (UAD)

In 2012, the University opened a center in the newly-renovated historic Roy Place Building in downtown Tucson: the "University of Arizona Downtown" (UAD). Within that facility, the Sustainable City Project, a partnership between the Institute of the Environment, the College of Social and Behavioral Sciences, and CAPLA, is exploring sustainable urban development and livable cities through education, outreach, and research. The School supports one studio there every semester (in Spring, a collaboration with Landscape Architecture and Planning).

STUDENT ACTIVITIES

AIAS-Freedom by Design, above.

SERVICE

Camp Architecture: Initiated in 2010, Camp Architecture is a program for middle and high school students to teach them about the built environment, sustainability, drawing, design, making, and careers in the design professions. Faculty, staff, and students teach the Camp, which now fills four one-week Camps every June.

City Of Marana, two Bus Shelters (2011–2013); regional AIA Design Award winner. Led by Assistant Professor Chris Trumble, the MaterialsLab staff and paid student assistants designed and constructed two large bus shelters for the City's Civic Transit Center.

AIA-Southern Arizona leadership: Director Robert Miller has served on the Board since 2010 and is the 2015 President; as a Past President, he will become a Director on the AIA Arizona Board. His participation has connected the School to the professional community. Through collaborative endeavors, such as a two-year joint lecture series (partially funded by the AIA), we are bringing students, faculty, and professionals together for educational and service endeavors. AIA's President sits on the AIA Board.

I.1.5 Long-Range Planning

objectives for student learning

Learning objectives are informed by four fundamental inputs:

1. NAAB SPC

The Student Performance Criteria outlined by NAAB are an integral part of curricular planning. Because the School prides itself in professional education, NAAB SPC are fundamental to our curricular design; they are consulted, not just in preparation for accreditation visits, but as a regular feature of planning and assessment.

2. MODES OF TEACHING

The School embraces three approaches, or modes, of teaching architecture:

2.1 EXTREME CLIMATE DESIGN: Using our own Sonoran Desert setting, we teach students to design to its extreme conditions; then, we teach them to extrapolate these skills to other climates. We are aware of the threat that global climate change poses to civilization; we teach both the leading sustainable principles while also stressing simple fundamental strategies, such as passive climate design, downsizing programs, and getting more architecture with fewer materials. Not only is Sonoran Desert a great laboratory for teaching how buildings should respond to environment, climatologists predict that arid climates will cover more of the globe, making our work increasingly relevant. Our School values design that is highly climate responsive.

2.2 CRITICAL PRACTICE: We embrace "critical practice," meaning embrace professional education and, beyond that, the training of young architects who will significantly contribute to the advancement of our discipline. This has become especially relevant over the past seven years, as the Great Recession coupled with a digital revolution in design and construction has fundamentally changed the way architects work and buildings are delivered. Our School values professional culture.

2.3 LEARNING BY DOING: Because professionals make, rather than merely think about, the built environment, our pedagogy is characterized by hands-on teaching, or, learning by doing. From our innovate structures curriculum (in which students build-and-break components in order to develop an intuitive sense of building physics) to our design/build studios (in which students build furniture, shelters, and small buildings), our educational environment is analogous to the world of practice and construction. Our School values experiential, as well as intellectual, learning.

3. CURRICULA

The School's curricula are gathered into five subject areas, or Streams, that characterize how we think about pedagogy. The Streams are the basis of evaluation at Milestones.

3.1 TECHNOLOGY: Investigations into the fabrication, assembly, erection, and operations of buildings, along with the many factors that inform this domain: climate, material properties, and performance characteristics.

3.2 HISTORY + THEORY: Studies that examine architecture as a sensual and intelligent expression of culture, both past and current. The sequence is global and cross-disciplinary in scope, embodying landscape architecture and urban design; history as well as theory.

3.3 DESIGN COMMUNICATIONS: Investigations into the rationalization, simulation, construction, representation, and presentation of architectural ideas through manual and digital tools, techniques, and methodologies. In an era when tools of design are being linked to methods of fabrication and assembly, the communication between designers and builders, including their tools, is an essential aspect of building delivery. These skills are also means of effective interaction with clients, citizens, and ultimately the users of architecture.

3.4 PRACTICE: Lessons that develop an ethical approach to the management, legal obligations, and delivery practices of architecture. Because architecture is an act that imposes itself on the world, and is thus ultimately in service of human needs, we teach an informed compliance with technical protocols and building codes, and a respectful interaction with the construction trades.

3.5 STUDIO: Involving the synthesis of all the Streams, design is taught, not just as form-finding, but as the art of fusing many criteria. The studios are organized in a progressive thematic sequence that serves as scaffolding for the whole curriculum.

4. CROSS-STREAM COMPETENCIES

We track learning in two particular competencies that cut across our Streams:

4.1 SOFTWARE: In order to supervise the introduction and development of digital design and fabrication skills, our Digital Technology Matrices²⁹ track when, where, and what level programs are taught. Knowledge is delivered progressively, starting with fundamentals (such as raster versus vector information), the introduction of rudimentary three-dimensional digital models, and developing awareness of 2d and 3d methodologies and output. Our curricula then advance to “smart” models and analysis tools, BIM, and the application of these techniques to studio work, field applications, and fabrication processes.

4.2 SUSTAINABILITY: SEE: Sustainability Protocol, above.

process of review + data sources used to assess learning objectives

The School solicits and evaluates multiple sources of evaluation. SEE: I.1.6.B. Curricular Assessment and Development, below.

role of long-range planning in other initiatives

SEE: Strategic Planning, below.

Besides learning objectives, the School collects, analyzes, and reviews data on student demographics, which becomes the basis for recruiting initiatives (described elsewhere).

role of the five perspectives

Because the Five Perspectives, reported on above, are integral to the curricula, achievement toward each is part of the regular assessment of learning, described below.

I.1.6 Assessment

I.1.6.A Program Self-Assessment

INSTITUTIONAL

Strategic Planning: The University of Arizona has a strategic plan called “Never Settle.”³⁰ Every college is expected to align its strategic plan with Never Settle; each unit contributes to the college plan. The School participates in the development and execution of the CAPLA plan, which has been developed, and is regularly revised, with the input of faculty, staff, and student representation.³¹

Office of Instruction and Assessment (OIA): The UA’s OIA requires units to conduct regular self-assessment in three parts: data collection, analysis, and correction. The methodology and results are posted to the OIA website.³² The School of Architecture was cited by the OIA in 2014 as an Exemplary Undergraduate Program.³³

²⁹ B.Arch Digital Technology Matrix: <https://arizona.box.com/s/7qz2byfr00k7jo2z2v42s4fzhfp8ic30>
M.Arch Digital Technology Matrix: <https://arizona.box.com/s/a19r861qvgisjihdrko999i4q22jht2m>

³⁰ <http://neversettle.arizona.edu/>

³¹ CAPLA 2013–2018 Strategic Plan <https://arizona.box.com/s/cj7ffhxij74qyholpwwvj3v67xi897hh>

³² OIA B.Arch page: <http://assessment.arizona.edu/arch/Architecture%20Undergraduate>

OIA M.Arch page: <http://assessment.arizona.edu/arch/Architecture%20Graduate>

³³ <http://assessment.arizona.edu/exemplary/ug>

COLLEGE

CAPLA has a day-long retreat every August at which long-range planning is conducted. Retreats are themed according to issues and topics of interest; recent topics include: student integrity, funded research, cross-disciplinary collaboration, and CAPLA's response to the University's constantly changing budget model, Responsibility Centered Management.

SCHOOL

The School holds 3-4 Faculty Meetings per semester, in addition to the assessment events reported below. The first and last Meetings are usually devoted to business; the middle one(s) to Faculty conversations, seminars, or work sessions dedicated to issues impacting the School. Examples:

2015-FALL: SNAPSHOT of the School's changing student demographics after the Great Recession; trends in the Faculty's composition and the career challenges for non-tenure-track faculty.

2014-FALL: The NAAB 2014 CONDITIONS | and the School's response.

2014-FALL: "THE VERY IDEA OF TEACHING DESIGN," a faculty seminar with guest Professor Emeritus John David Jacques (Clemson University), based on readings from James Banner and Harold Cannon, *The Elements of Teaching*.

2013-FALL: STUDY ABROAD, expanding opportunities and how to participate.

2013-SPRING: The new HISTORY + THEORY CURRICULUM.

2012-FALL: RESPONSIBILITY CENTERED MANAGEMENT | Will the School Thrive or Merely Survive?

I.1.6.B. Curricular Assessment and Development

The required chart identifying all the parties in the curricular assessment process is linked.³⁴ The subjects of Curricular Assessment are described under Objectives for Student Learning (I.1.5, above). The results of faculty, student, and graduate assessments are iterative and linked to the description of OIS participation (I.1.6.A, above). The participants and process of curricular assessment follows:

STUDENTS

Faculty are required to administer student evaluations for every course, the results of which both inform the teacher and become part of that faculty member's Annual Performance Review. As part of our self-evaluation protocol, students are periodically given surveys that track learning across the curricular Streams.³⁵ We give surveys to students (and faculty) when specific issues arise, such as our Survey on B.Arch Program Quality (2010)³⁶ and the Surveys on Foundation and 2nd Year (2011)³⁷, both taken before initiating many significant curricular changes.

The AIAS occasionally sponsors special input sessions, such as the AIAS meeting on studio culture (26 MAR 2012), the AIAS roundtable on collaboration (10 SEP 2012), interviews of student Shop Monitors over work and safety conditions in the Materials Lab (9 MAY 2012), meetings with concerned M.Arch students on print policy (30 NOV 2012, 28 JAN 2013), and numerous sessions to deal with concerns over changes in the B.Arch Capstone (2013-2015). The results of these are reported to, and addressed by, the Curriculum Committee. Finally, graduating students are invited to meet in small groups with the Director in exit interviews.

FACULTY

Besides course grading, faculty collectively evaluate student learning in two ways:

Curricular Walk-Throughs

Both accredited degrees have curricular walk-throughs every semester, the B.Arch in review of studios while the M.Arch review covers all courses by year level. After finals, professors post samples of their high- and low-pass work, which are then "walked-through" in chronological order. We discuss whether the assignments are achieving the learning objectives; we readjust assignments for effectiveness and

³⁴ Assessment Chart: <https://arizona.box.com/s/27a0adkruz9v7hylccb1xti9l3prvj38>

³⁵ See 301, 401, and 452 Self-evaluations at <http://assessment.arizona.edu/arch/Architecture%20Undergraduate> "Assessment Findings."

See M.Arch I, M.Arch II, and M.Arch III Self-evaluations at <http://assessment.arizona.edu/arch/Architecture%20Graduate> "Assessment Findings."

³⁶ Survey on B.Arch Program Quality (2010): <https://arizona.box.com/s/p20rtbrdt417f8c5mwx25oh6kq8o7xdt>

³⁷ Surveys on Foundation and 2ndYear (2011): <https://arizona.box.com/s/c982lt20rpwpa9z0z8dtqj17snbyzx0s>

learning benchmarks between years. In the M.Arch program, which has a younger curriculum, we also seek opportunities to build synergy between courses and studios.

Milestones

Milestones are non-grade-based performance assessments placed between curricular phases: two in the B.Arch;³⁸ one in the M.Arch.³⁹ Their purpose is to insure that students are acquiring and retaining skills and knowledge, not just passing courses, but they have a significant impact on our understanding of curricular effectiveness and faculty member performance. SEE: II.1.1 Student Performance Criteria | milestones, below.

Curriculum Committee

Comprised of the Director (non-voting), the Stream Coordinators, M.Arch and MS.Arch representatives, and four students from the various programs, the Curriculum Committee meets bi-weekly to review, forge, and approve changes to the curricula.

Administrative Review

The Director attends every final jury (for at least an hour) and endeavors to visit every course over a three-year cycle. He offers suggestions on teaching craft and student performance. These visits also inform the Annual Performance Reviews of the Faculty. The Director conducts small-group exit interviews with graduating students from both accredited degrees after final juries and before graduation.

External Review

Every studio hosts outside critics for final juries. While outside reviewers vary greatly in their candidness and quality of insight, the process subjects the Faculty and students to the outside observations of academics and professionals. At selected points in both accredited degrees, outside critics are asked to also evaluate the work against progress in the five curricular Streams.⁴⁰

³⁸ link to B.Arch curriculum map, showing Milestones: <https://arizona.box.com/s/nwvtjm0iutifspq1aa2jbelqgseqw8x>

³⁹ link to M.Arch curriculum map, showing Milestone: <https://arizona.box.com/s/knrcqgtggvgxhf57yrjx5a3bqi0rk4x1c>

⁴⁰ See 301, 401, and 452 Critic evaluations at <http://assessment.arizona.edu/arch/Architecture%20Undergraduate> "Assessment Findings."

See M.Arch I, M.Arch II, and M.Arch III Critic evaluations at <http://assessment.arizona.edu/arch/Architecture%20Graduate> "Assessment Findings."

Section 2. Progress since the Previous Visits

Bachelor of Architecture

Conditions Not Met

2004 Criterion 6.0. Human Resources

In recent years, the school has lost faculty and administrative positions due to retirements, resignations and budget cuts. At present, the faculty is being overtaxed and in need of leadership by a permanent director. A national search for a new director and two faculty positions is currently underway.

Two new, junior faculty have been hired this year and are of great support to the program, the existing faculty, and the students. The budget cuts have also resulted in the loss of administrative positions such as the assistant dean's position. This has decreased or eliminated support programs such as student advising. The faculty and the dean are ready to undertake curriculum updates and new degree programs. The provost and the dean are very supportive of the school, but the lack of a permanent director, empty faculty positions, and budget cuts have created a precarious situation. The existing faculty are working hard, but are worried and demoralized by the budget cuts.

Program Activities in Response [Year of previous visit [2009] – Year of APR [2015]]: In 2010 a permanent Director was hired and a full-time B.Arch Advisor was added to supplement the Graduate Advisor (50% co-appointed with the School of Landscape Architecture and Planning). Since the 2009 visit: 3 tenured faculty retired; 3 were hired and left; 5 were hired who remain (including the Director), 2 of which were hired with tenure and 1 earned promotion and tenure; three TT searches are open. The School has shifted to complementary mix of TT and NTT faculty. Of the 45 48 teachers this year, 27% 25% are tenure-track.

2014 CONDITIONS: No change.

2004 Criterion 13.25 Construction Cost Control

Insufficient evidence was found that this criterion is being properly addressed. Cost controls are noted in only one required course as one of many topics. The curriculum could address cost controls as an integral part of other design considerations.

Program Activities in Response [Year of previous visit [2009] – Year of APR [2015]]: Cost estimating and control has been assigned to two courses and is found in Applications studios:

ARC 459 | Ethics and Practice: Covers Acquisition Costs (costs of acquiring property related to a project); Project Financing and Funding (means of financing a project, relationships with financial institutions); Financial Feasibility (alignment of funding with project goals; value engineering); Project Estimating + Cost Control; and Operational Costs (maintenance and replacement costs). Guest presentations: Clients (public and private) discuss cost as a metric for hiring and re-hiring architects, and the architect's ability to control costs; contractors discuss the architect's role in project costs. Guests from non-traditional practices discuss how cost drives business practices, such as pre-construction services and estimating, and the cost benefits driving digital fabrication.

ARC 441/541 | Construction Documents: Covers Acquisition Costs, Financial Feasibility, Operational Costs, and Construction Estimating.

ARC 451a/451b | Applications Studio: Students who opt into a design/build get actual cost estimating, purchasing, and cost management at the scale and complexity of their project.

2014 CONDITIONS: No change.

Causes of Concern

2004 Criterion 1.5 Architectural Education and Society

The school has a strong commitment to bring its resources of the school to the community. A key program of outreach is the Roy P. Drachman Institute for Land and Regional Development Studies. The team applauds this very successful program. The Design-Build Coalition provides affordable housing for low income populations and engages students in all aspects of design and construction. The Institute also provides an urban design outreach program and is enhancing the historic preservation outreach program. An issue of concern is the significant reduction or complete loss to certain international study abroad programs that have had a long history at the School of Architecture. While individual study abroad programs are still possible, strong support and development of international studies programs would enhance the education of the students.

Program Activities in Response [Year of previous visit [2009] – Year of APR [2015]]: Since 2009 we have rebuilt study abroad (although the Recession delayed implementation). We have exchange agreements with a coalition of 11 universities in Sinaloa, Mexico; and are in process with Pontifica Universidad Catolica and Universidad Diego Portales, Santiago, Chile. We have a new Fall program in Orvieto, Italy; this year that includes 5th Year B.Arch, M.Arch, and MLA students. For a list of recent study abroad programs, SEE: II.1.1 Student Performance Criteria | methodology for assessing work | MILESTONES | B.Arch | Application phase | ARC 451a / ARC 451b | Applications Studios.

2014 CONDITIONS: No change.

2004 Criterion 7.0 Human Resource Development

The faculty and administration need to ensure that the criteria and process for promotion and tenure are clear and that tenure-track faculty are aware of both the criteria and the process. There is also a need to establish a strong, active mentoring program. The team is encouraged to hear that sabbatical leaves for tenured faculty are available as well as course reductions for tenure-track faculty and travel funds for professional conferences. It was noted though that due to recent faculty shortages, course release time has materialized later than promised or desired and is not as helpful for junior faculty in the development of their research/scholarship agenda.

Program Activities in Response [Year of previous visit [2009] – Year of APR [2015]]: University tenure criteria were given a major update in 2014;⁴¹ they were updated in a major re-write of the College Bylaws in 2011,⁴² which superseded extant School Bylaws. After the 2009 Visit, Interim Director Hardin began giving preferential course assignments to junior, rather than senior, faculty, a practice continued by Director Miller. Assistant Professors get multiple electives and/or applications studios (ARC 451a/451b) during tenure track, which allows them to develop their tenure cases. Since 2010, every faculty member in tenure-track has received two 3-CU course releases, one before each the 3rd- and 5th-year dossier submissions. Prior to 2010, mentoring was assigned to the School's Faculty Status Committee, which also assessed candidates for tenure and promotion. In the re-write of the College Bylaws in 2011, P&T assessment was moved to the College Faculty Status Committee. Since 2010, every Assistant Professor has been assigned a Mentor, charged to meet regularly and make tenure progress evaluations in the Mentee's annual Distribution of Effort and Annual Performance Review. Both promotion and tenure candidates since 2010 have been awarded.

2014 CONDITIONS: No change.

2004 Criterion 9.0 Information Resources

The Architectural Library is currently located in the Fine Arts Library, a building adjacent to the School of Architecture. The location is convenient, but several faculty reported that as a result of the move, students do not use the library facilities as much as they should or would if there resources were in the same building. Concern was expressed that the library may move again, this time to the location of the Science Library, across campus from the existing facility. This move would greatly compromise the ability of the students to use it as a proper source of information and reference materials.

Program Activities in Response [Year of previous visit [2009] – Year of APR [2015]]: As reported the Architecture Library was incorporated in the Science Library in 2010. We do not have space or resources to move or support the Library at CAPLA. Online access to research and reference has hugely expanded and lessened the need, if not the desirability, for a physical facility. The Librarian assigned to Architecture gives focused presentations in specific courses: ARC 202 and ARC 498. We run an informal lending library out of the Architecture Office comprised of donated materials. The University plans for a fine arts library adjacent to CAPLA in its master plan; there is no schedule for construction.

2014 CONDITIONS: No change.

2004 Criterion 10.0 Financial Resources

The University of Arizona, like many institutions of higher education across the country has experienced significant reductions in the budget available to support their educational mission. The College of Architecture and Landscape Architecture has been severely impacted and has seen a reduction in the

⁴¹ <http://hr.arizona.edu/policy/appointed-personnel/3.3>

⁴² <http://capla.arizona.edu/capla-faculty-staff-and-student-handbook> Bylaw 4

college's leadership with the elimination of a full-time assistant dean and a half-time associate dean. The School of Architecture has experienced cuts in their budget and freezes on hiring that have left it with reduced faculty. Largely due to the efforts of Dean Cervelli, authorization has now been given by the provost to hire a permanent director of architecture and two additional full-time faculty members. This will assist greatly in easing the teaching load of many faculty members who should be commended for their efforts in taking up the challenges of providing a high quality education with reduced resources. It should be noted that faculty reported that their salaries are currently below the national average. The budget reductions have resulted in significant cutbacks in international study programs and in the ability to provide more paid student assistantships as lab attendants and other similar positions. The per student expenditures for those in the architecture program at the university are below the expenditures for students enrolled in other professional programs. For example, per student expenditures annually for architecture students are \$9,300 compared to teaching and teacher education at \$12,427 per year. Studies are underway to review the tuition and program fees as well as differential tuition. The dean of CALA has begun to address the budget issues with proposed new programs, which are designed to increase revenue sources. These will assist in easing the budgetary conditions, especially if program fees and differential fees can be reapportioned to return more of these needed dollars to the school. The College of Architecture and Landscape Architecture and specifically the School of Architecture are to be applauded for their efforts under severe financial constraints to maintain a high quality of education. There is a great need to fill the open faculty positions and to engage a new head of the department to lead the School into the new decade.

Program Activities in Response [Year of previous visit [2009] – Year of APR [2015]]: Budget cuts have continued since the 2009 Visit. Since 2008, State funding to the UA has dropped 43%. Dean Cervelli has offset the impact on Architecture. In 2009, she won Board of Trustee approval for a significant increase in Differential Tuition; in this year's 2015 cut, she assigned most of the 4.2% CAPLA cut to the Drachman Institute, sparing Architecture its pro rata share in order to protect revenue-generation. Increased enrollments this year bring increased revenue from Differential Tuition and Program Fees; Architecture's budget is estimated to be 4% higher than last year. The UA implemented Responsibility Centered Management in July 2015. Under RCM, colleges earn revenue based on credit-units taught and the number of students in major. RCM's impact on Architecture, given our post-recession rising enrollments, will be favorable.

The College administration has been restored, with two part-time Associate Deans and a full-time Assistant Dean of Finance. Additional staff hires in the Dean's Office have expanded service. Faculty salaries in the School have been at, or above, regional and national rates in recent years.⁴³

average salary, by rank				
2013-2014	Professor	Associate Professor	Assistant Professor	average of averages
SoA:Arch west	\$103,311	\$63,060	\$56,137	\$74,169
SoA:Arch national	\$103,472	\$71,779	\$58,214	\$77,822
SoA:Arch public national	\$96,233	\$74,907	\$62,031	\$77,724
SoA:UofA	\$120,002	\$71,436	\$66,254	\$85,897
SoA:UofA 2015-2016	\$125,068	\$75,079	\$70,230	\$90,126

Faculty workloads continue to be heavy, but teaching loads match our peers. Tenure-track studio faculty average 9-CU/semester (a 3-CU course + 6-CU studio); History+Theory faculty this year average 8.25-CU/semester (but that includes co-convened grad/undergraduate courses so 7.5-CU/semester is more accurate).⁴⁴ The number of NTT faculty (69% of the persons; 50% of the FTE), who carry 69% of Teaching and 55% of Service, make Research possible for tenure-track faculty. The School awards 44 graduate semester-assistantships/year (with tuition remission + \$2748 salary w/ benefits) and hires about 20 students/semester on wages to support the staff and faculty. A status report on faculty positions filled is under 2004 Criterion 6.0. Human Resources, above.

2014 CONDITIONS: No change.

⁴³ Non-School data: *2014 Report of the National Architectural Accrediting Board* (Washington, DC: National Architectural Accrediting Board, Inc, 2015), Part III, p 9-10.

⁴⁴ Co-convened courses combine most of the effort of lecture preparation and delivery, but often involve an extra seminar for graduate and honors students as well as a larger class of students to grade and shepherd.

Master of Architecture

Conditions Not Met

2009 Criterion A.4, Technical Documentation (Ability)

2013 Team Assessment: Models and drawings in ARC 510f do not clearly identify materials and systems. Student work from ARC 510f and ARC 541 did not indicate an ability to prepare outline specifications or life safety code reviews. Student work from ARC 541 did not indicate an ability to integrate building service systems in building designs, resolve life safety and accessibility issues, use dimensioning protocols, and relate drawings and specifications to the actual building design. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: ARC 510f and ARC 541 were assigned new teachers who were asked to implement more rigorous system teaching and requirements for project documentation.

2014 CONDITIONS: When Technical Documentation was revised, it was assigned primarily to ARC 541 | Construction Documents, with limited Introductory Claims assigned in two Technology courses.

2009 Criterion B.2, Accessibility (Ability)

2013 Team Assessment: Student work observed did not show evidence of an ability to design sites and buildings to accommodate individuals with disabilities or an ability to properly integrate accessible design principles in building solutions. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The Faculty recognized that Accessibility needed to be taught as a fundamental aspect of design, not added to late in the degree. While the SPC remained with an upper-level studio, earlier studios started teaching this criterion. The comprehensive project began requiring diagrams of accessible routes.

2014 CONDITIONS: The merger of B.2 | Accessibility into C.3 | Integrative Design corresponded to a compression in the studio sequence. Now C.3 comes a semester earlier; followed by a Milestone.

2009 Criterion B.4, Site Design (Ability)

2013 Team Assessment: The team did not find evidence of students' ability to meet this criterion in designated course 510d or an ability to design for watershed (site drainage), topography (grading plans), selection of appropriate plant material, hardscape, or site lighting. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The Faculty concurred that there was insufficiently technical site design content in the curriculum. The SPC was shifted to ARC 526 where such material could be better accommodated.

2014 CONDITIONS: The dispersal of B.4 | Site Design into B.1 | Pre-Design, B.2 | Site Design, and C.3 | Integrative Design was seen as helpful. The requirements of B.1 were broken into several Partial Claims and disbursed across a studio and two courses; B.2 was moved earlier in the studio sequence; C.3 was placed in a studio followed by the Milestone.

2009 Criterion B5 Life Safety (Ability)

2013 Team Assessment: Courses ARC 541 Contract Documents and ARC 510f Advanced Studio 3: Technical Investigation Comprehensive Design are designated to meet this criterion. Evidence was not found that supports students ability to apply principles of life safety in building design. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: ARC 510f and ARC 541 were assigned new teachers. Students were required to diagram exit strategies as part of schematic design; final projects were double-checked prior to final submission.

2014 CONDITIONS: When B5 | Life Safety became B.3 Codes and Regulations, we assigned Understanding to a studio co-convened with Ability in ARC 541 | Construction Documents.

2009 Criterion B.6, Comprehensive Design (Ability)

2013 Team Assessment: The team did not find evidence of students' abilities in the following areas: outline specifications; ramps slopes/safety, awareness of ADAAG guidelines; site drainage, site lighting, utilities, specification of hardscape, or plant material; minimum life safety exits for occupancy type; conceptual understanding of basic mechanical system types and their integration in building designs. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The Faculty laid out a comprehensive plan to teach, and check for, the B.6 requirements and pushed many lessons requisite to these abilities into earlier studios.

2014 CONDITIONS: When B.6 | Comprehensive Design was expanded into Realm C and rendered less prescriptive, the Faculty were appreciative. We maintained the new more rigorous approach.

2009 Criterion B11 Building Service Systems (Understanding)

2013 Team Assessment: In reviews of courses Arc. 510f, Arc. 520f, and Arc. 541, the team did not find evidence of the students' understanding of building service systems and how to integrate them in a building design. Also in Contract Documents (Arc. 541) systems such as plumbing, electrical, vertical transportation, security, and fire protection were not consistently shown. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The Faculty believe the relevant lessons were delivered in 520c and 520f, though not (as the Team found) applied to design. Emphasis of the latter was added to ARC 541.

2014 CONDITIONS: The change of B.11 to B.9 amounted to no curricular change.

2009 Criterion C3 Client Role in Architecture (Understanding)

2013 Team Assessment: Student work in courses 541 or 559a did not show consistent evidence of the students' understanding of the architect's obligation to understand the needs of the people who use, commission, or pay for the buildings they design. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The curriculum was compressed to add a new vertical studio ARC 510f with options for outreach, service learning, and design/build projects. It was felt that actual experience with clients would improve this SPC.

ARC 459 | Ethics and Practice: Covers RFQs for architectural services, stressing client needs; includes guest clients discussing issues.

2014 CONDITIONS: The change of C.3 to D.1 amounted to no curricular change.

2009 Criterion C7 Legal Responsibilities (Understanding)

2013 Team Assessment: The team did not find evidence of students being exposed to registration laws and responsibilities, building codes/regulations, zoning and subdivision ordinances, historic preservation, and accessibility laws. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The Faculty improved teaching and documentation of this SPC. New faculty member assigned to ARC 459.

ARC 459 | Ethics and Practice: Covers Architect registration laws and responsibilities; licensure and professional ethics and responsibilities; state and national regulations.

2014 CONDITIONS: The change of C.7 to D.4 amounted to no curricular change.

2009 Criterion C8 Ethics and Professional Judgment (Understanding)

2013 Team Assessment: Evidence was not found that ARC 559a presented issues of professional judgment in practice or evaluation of case studies of ethical situations. A stated goal of ARC 559a is to cover professionalism and the architect's ethical responsibility to address the current climate crisis, the 2030 Challenge, and case studies of well-known ethical situations. Evidence of an understanding of these issues was not consistent in examples of student work. This criterion is not met.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]:

ARC 550c | Ethics and Practice: Covers AIA and NCARB codes of professional conduct as framework for ethical issues and situations; conflict of interest; unpaid labor and the wage-gender gap; case studies illuminate the issues brought forth in the code.

2014 CONDITIONS: When C.8 | Ethics and Professional Judgment was revised into the less technical and prescriptive D.5 | Professional Conduct, we felt the change appropriate.

Causes of Concern

2009 Condition 1.2.4, Financial Resources

Visiting Team Report [2013]: In recent years, financial resources and university administrative support have been unstable, causing the school to react to reduced state funding in a careful and strategic manner. The current thinking is the period of instability has passed; however, budget and resource concerns remain.

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: Same as response to 2004 Criterion 10.0 Financial Resources, above.

2009 Condition B.6. Comprehensive Design

Program Activities in Response [Year of previous visit [2013] – Year of APR [2015]]: The VTR listed this as *both* a Condition Not Met and a Cause of Concern. SEE: response above.

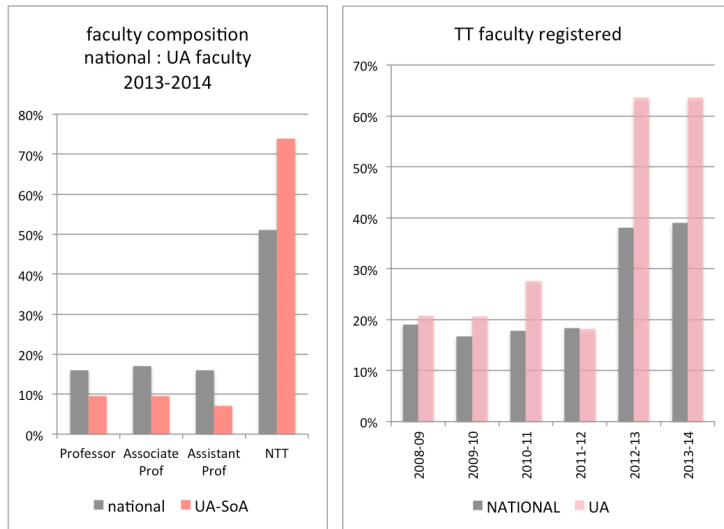
Section 3. Compliance with the Conditions for Accreditation

I.2.1 Human Resources and Human Resource Development

faculty resumes

Resumes for all full-time Faculty members are available in the Accreditation Box.⁴⁵

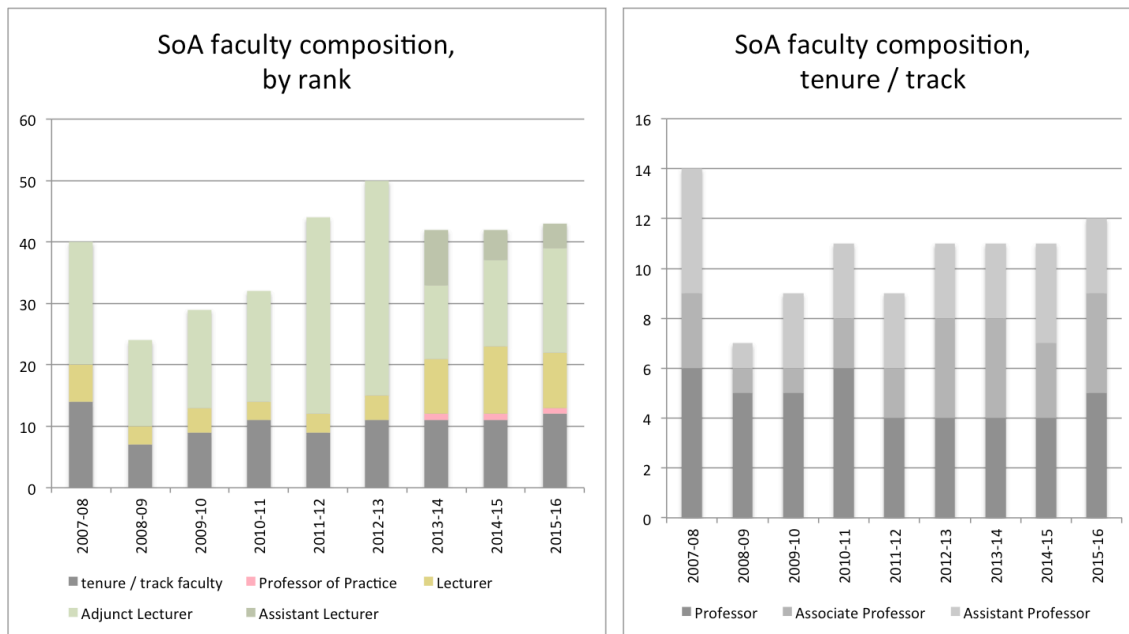
FACULTY COMPOSITION



Relative to architecture schools nationally, the UA SoA has a large non-tenure / track (NTT) faculty. Since the last B.Arch visit, NTT teachers have made up 66-80% of the Faculty. As of the latest NAAB data (2013-2014), schools nationally had 51% NTT compared to our 74%. We are at ~~73%~~ **71% NTT + 4% graduate assistant teachers** in AY 2015-2016.

We also have a high percentage of registered teachers. As of the last latest NAAB data (2013-2014), 64% of our TT faculty was registered compared to 39% nationally. In AY 2015-2016 75% of our TT faculty is registered. NAAB does not keep registration statistics on NTT faculty; 74% of our NTT faculty are registered this year, making 71% of our whole faculty registered.

⁴⁵ Tenure and Tenure-Track Faculty CVs: <https://arizona.box.com/s/hs5azpauhd7p550usylbthy6e2usgtzb>
Adjunct Faculty CVs: <https://arizona.box.com/s/blh7s7rnlcgvd71e14bh90i1n5avo0ol>



The composition of our faculty by rank has changed significantly since the last B.Arch Visit. The NTT faculty has grown from 69% in 2009-2010; peaking at 80% in 2012-2013 (at the last M.Arch Visit); to ~~73%~~ **71% (with 4% graduate teaching assistants as the primary teacher)** today. We have three outstanding searches that will alter lower the NTT mix a bit more:

DESIGN/BUILD: A junior tenure / track search will be open in 2016-2017. See page 8.

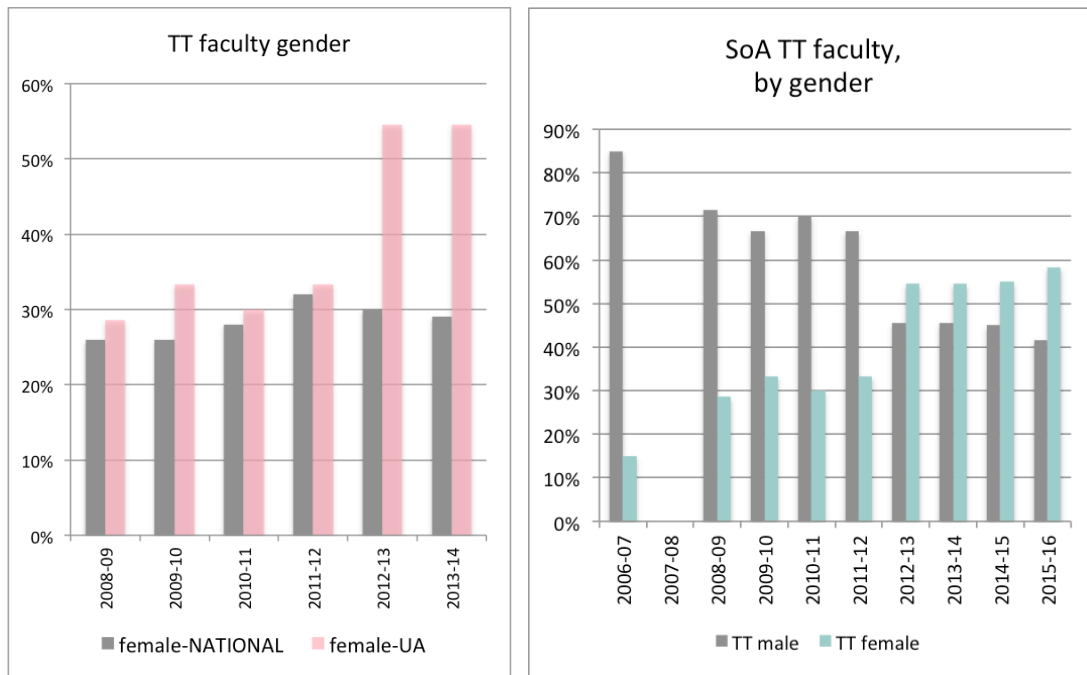
HEALTH + BUILT ENVIRONMENT: A tenure / track search is pending. See page 8.

URBAN DESIGN: A search for a tenure / track position was unsuccessful and is being redefined as a Professor of Practice (NTT). See page 36.

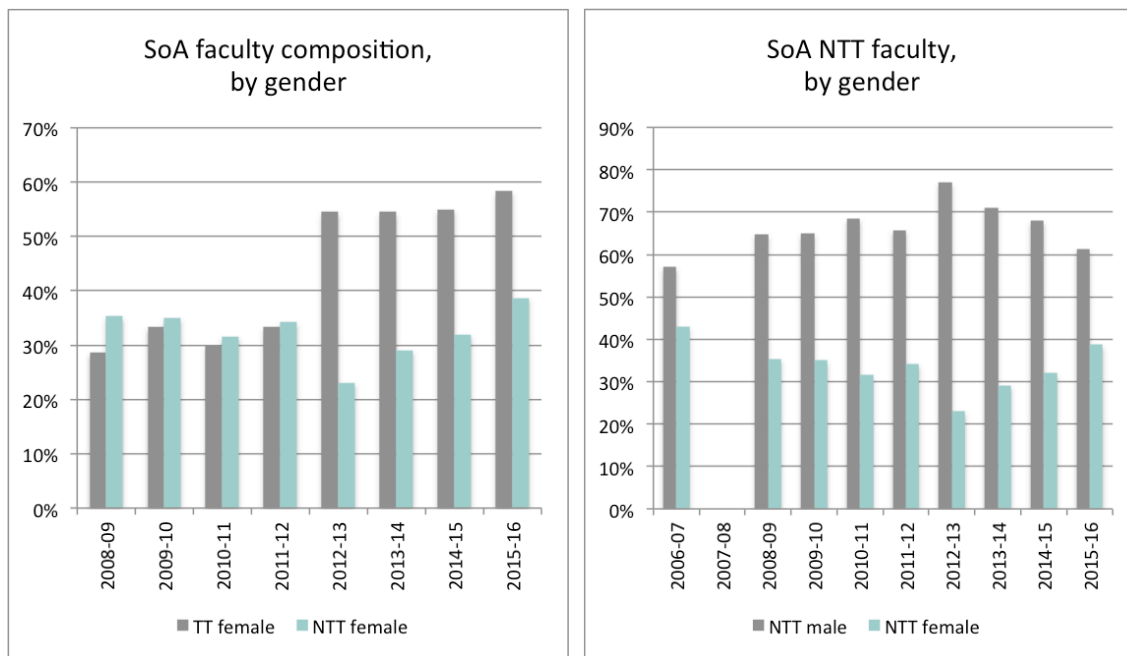
Across this same period the number of faculty have increased as we have launched the M.Arch degree, from 9TT / 20NTT (29 total) in 2009-2010 to 12TT / ~~34~~ **34 NTT / 2 graduate assistants** (~~43~~ **48** total) today.

Within the NTT Faculty, the graph shows the growth of multi-year appointments (Lecturers and Professors of Practice) and a clarification in title between Assistant Lecturers (who get benefits) and Adjunct Lecturers (who do not). In essence, the trend is toward a more stable and balanced NTT Faculty.

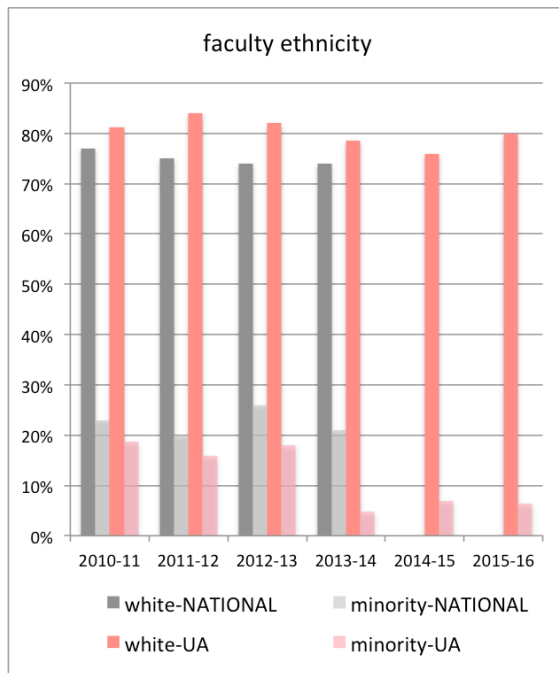
Within the TT Faculty, the graph shows an improving balance between ranks. At the last B.Arch Visit in 2009-2010, full Professors outnumbered Associate and Assistant Professors combined; today the split is 11% | 9% | 7%. We have one Assistant Professor going up for tenure & promotion; we have three TT positions in search. If all are successful we will have a perfectly balanced TT Faculty.



We have consciously and successfully grown our female faculty to 58% of the tenure / track (TT) faculty; it was less than 30% at the last B.Arch visit.



It has proven more difficult to recruit qualified NTT female faculty, which reflects the gender balance in practice in our region—but we have made progress: female NTT teachers have doubled since the last M.Arch Visit. NAAB does not track NTT faculties by gender.



The Caucasian make up of the School's Faculty is about 5% higher than architecture faculties nationally, and our minority representation is correspondingly lower. The apparent drop in SoA minorities around 2013-2014 is due to a change in reporting; 13-17% of our teachers have declined ethnicity designation since that year. While our minority representation is probably higher than indicated, we are aware of the need to improve.

faculty matix

The Faculty matrix showing course assignments, credentials, experience, and research is available in the Accreditation Box.⁴⁶

FACULTY LEADERSHIP + ORGANIZATION

The School does not have separate graduate versus undergraduate faculties; for reasons of nurturing collegiality, we have a slow but regular flow between degree programs. Teaching assignments are made according to qualifications, diversity, and teaching need.

M.Arch Leadership

The MS.Arch and M.Arch programs have Program Chairs responsible for recruiting, curriculum quality and development, student progress and satisfaction, and accreditation fulfillment. This person also chairs the respective admissions committee. This appointment includes a 3-CU course release for the M.Arch only (due to its size and complexity); the work is counted toward the faculty member's Service. There is a modest summer stipend accompanying this appointment, which incentivizes recruiting and degree completion. The M.Arch Program Chair's stipend is calculated according to the following formula:

for every cohort at each program level that completes the academic year with an enrollment in excess of ten students, the stipend is \$100/student.

The graduate program chairs are assisted by Amy Moraga, the Graduate Program Coordinator, who is assigned 50% to the School. The Director, with consultation from the Program Chairs, makes recruiting awards, student assistant assignments, and teaching assignments.

Current Program Chairs are:

M.Arch: Associate Professor Beth Weinstein

MS.Arch—Design + Energy Conservation: Professor Nader Chalfoun

MS.Arch—Heritage Conservation: Professor Brooks Jeffery

MS.Arch—Independent Study: Assistant Professor Shane Smith

⁴⁶ faculty matrix: <https://arizona.box.com/s/f91mramje037q4osrar4mr4m4o6f570j>

B.Arch Leadership

The Director oversees the B.Arch degree, which however is highly articulated with faculty leadership under the Curriculum Committee, the Studio Coordinators, and the Sustainability Pedagogy Committee.

Curriculum Committee

Described above, the Curriculum Committee includes the elected Coordinators of each of the five Curricular Streams.

Studio Coordinators

Every studio with more than one section is assigned a Studio Coordinator⁴⁷ who is responsible for the managing the delivery of learning objectives and SPC. Studio Coordinators meet as a group once / semester.

Sustainability Pedagogy Committee

Overseeing the delivery of the Sustainability Protocol (above), this group of four manages the implementation of the protocol, verifies its results, and then modifies delivery.

continuing development

ALL FACULTY

All members have access to travel and project funding (below); enjoy the benefit of the CAPLA Lecture Series; have subsidized attendance to the annual AIA State Conference; and are generally encouraged to advance the knowledge and practice of the discipline. The 71% of the Faculty that is registered will participate in continuing education, as required. 49% of the Faculty is actively engaged in a practice outside the University.

TENURE-TRACK FACULTY

All tenure-track Faculty have annual research assignments that vary as a function of their rank and proximity to P&T. Assistant Professors have two 3-CU course releases during tenure-track; they receive the highest priority for scholarship and project funding. 75% of the tenure-track Faculty are registered, with the requisite continuing education requirements.

NON-TENURE-TRACK FACULTY

Of the 69% Faculty who with non-tenure-track appointments, all have some engagement in practice, art work, or outside research. 74% of NTT Faculty are registered, with the requisite continuing education requirements.

resources available to the faculty

The School maintains two funds available to Faculty to support Teaching and Research.

STUDIOS, PROJECTS + FACULTY SUPPORT

\$45K+/-: Includes pedagogical projects and support such as field trips, studio support, virtual conferences and workshops, design/build studio projects, moving and technology allowances for new hires, faculty installations and research seed funding, and minor equipment purchases. Also includes limited support for students:

Policy On Funding Field Trips

TRIPS-out of state

FACULTY: School pays trip cost per University regulations.

STUDENTS: School pays University fleet costs; otherwise students pay travel; school pays educational costs (admissions to institutions for educational purposes); students pay gas, parking, food, and other costs.

TRIPS-in state

FACULTY: School pays trip cost per University regulations.

STUDENTS: School pays University fleet costs; school pays educational costs (admissions to institutions for educational purposes); students pay gas, parking, food, and other costs.

⁴⁷ ARC 451a/b are an exception, because each studio had individualized content and purpose.

TRAVEL+ FACULTY DEVELOPMENT

\$65K+/-: Approximately 80% is budgeted for Faculty (available to all; includes scholarly and teaching travel) and 20% Administration (available to administrators, faculty, and students doing administrative business).

Policy On Funding Faculty Development

The Dean's guidelines for funding faculty travel and development (adjusted by Director):

1st tier - \$2000 adjunct/tenured faculty.

2nd tier - \$3000 tenure-track faculty.

3rd tier - \$4000 tenure-track faculty with proven record of accomplishment or at a critical place in P&T.

application + award

Last year (2014-2015), 36% of the Faculty made Travel requests; 100% of requesters were funded (though not to the full request, as they requested 154% of the budget). 19% of NTT Faculty made requests; they requested 22% and were awarded 22% of the budget. 82% of TT Faculty made requests; they requested 132% and were awarded 78% of the budget.

So far this year, 27% of the Faculty have made Travel requests, 19% of the NTT and 71% of the TT Faculty.

SABBATICAL + RESEARCH LEAVE

The tenure-track Faculty is entitled to sabbatical leave, according to the UA policy.⁴⁸ For a one-semester sabbatical, the faculty member receives full salary; for two semesters, 60% salary. The School is required to bear the financial burden of sabbatical leave. In the recent past, the School has awarded the following sabbaticals:

2011-2012: Professor Hardin, one semester

2012-2013: Associate Professor Weinstein, one semester
Professor Jeffery, one semester

2014-2015: Professor Chalfoun, one semester;
Associate Professor Domin, one semester;
Associate Professor Schrenk, one semester.⁴⁹

2015-2016: Associate Professor Dickinson, two semesters.

Faculty with funded research may negotiate with the Director to buy out their teaching assignments in order to devote more time to Research. This has not happened since the last visits; instead, faculty members have used funded research to pay themselves during the summer (limited by UA policy to 33% of the 9-month salary).

faculty research since the last visit

SEE: **The School of Architecture / MISSION** / Research, above.

A matrix listing funded research is in the Accreditation Box.⁵⁰

A matrix summarizing un-funded and pro-bono supported scholarship is in the Accreditation Box.⁵¹

student support services

B.Arch students are supported through their Academic Advisor, Sasha Wilson. Wilson is a registered architect and an alumna of the School; she is 1.0 FTE devoted to the B.Arch and does recruiting and advising.

Graduate students are supported through an Academic Coordinator, Amy Moraga (0.5 FTE each Architecture and School of Landscape Architecture and Planning), and through their respective Program Chairs.

For IT support, students have access to two full-time IT staff and various part-time IT student assistants who are also on call nights and over weekends when deadlines follow.

⁴⁸ http://www.hr.arizona.edu/sabbatical_leave_AP

⁴⁹ Professor Schrenk had a paid Research Leave negotiated at time of hire, not technically a sabbatical.

⁵⁰ Faculty funded research matrix: <https://arizona.box.com/s/oottg64uohlvjxv0mrhmcapqcam0c4s>

⁵¹ Faculty scholarship matrix: <https://arizona.box.com/s/uvrxkmlti3fpuq0ug0rwnn0fsgvfsyp>

For Materials Lab support, students have two full-time staff, a group of part-time non-student staff (eight in 2015-2016), and a platoon of student Shop Monitors.

For Internship placement support, SEE: I.1.4 Defining Perspectives | collaboration + leadership | professional opportunity.

architect licensing advisor

The School's Architect Licensing Advisor is Lecturer Michael Kothke (appointed Fall 2010), an NCARB Certified Architect and principal of HK Associates Inc, in Tucson, AZ. Kothke is active in the Tucson architectural community and able to assist practitioners with questions they may have about supervising or mentoring pursuant to NCARB.

Through his professional experience and his role as a lecturer within the School of Architecture, he is able to fulfill the responsibilities required of an Architect Licensing Advisor:

- Michael is one of three appointed Architect Licensing Advisors in the State of Arizona.
- He is a licensed architect and principal of an architectural firm.
- He is an NCARB Certified Architect who has completed three steps required for licensure.
- Within the school's curriculum committee, Kothke is a member of the Practice Stream and Coordinator of the B.Arch Design Stream.
- Kothke is a studio instructor and course lecturer (Architectural Programming, Building Envelope Systems); he teaches the ARC493/ARC593 | Internship with it's IDP elective, where the latest NCARB requirements are unpacked and contextualized relative to the real-world experience of contributing licensed professionals (course instructor, and guests). The key material for this course is NCARB.org and the latest IDP and ARE guidelines.
- Michael serves as a career counselor for most of the B.Arch students and often provides mentorship and advice to the AIAS and academic advising faculty for orientation events, such as the AIAS Portfolio Charrette and the School's annual Job Interview Fair.

Kothke regularly corresponds with NCARB and stays current with refinements to the IDP, ARE, and Arizona's regulatory processes. As the School's Architect Licensing Advisor, he regularly hosts NCARB and state licensing representatives:

- Fall 2011: NCARB IDP Director Harry Falconer;
- Spring 2014: NCARB Internship + Education Manager Martin Smith;
- Spring 2015: NCARB Director of Examination Jared Zurn and the Arizona Board of Technical Registration Executive Director Melissa Cornelius.

I.2.2 Physical Resources

CAPLA is housed in two connected buildings, with two adjacent houses and a remote downtown facility. Floor plans are in the Accreditation Box.⁵²

⁵² CAPLA facilities floorplans: <https://arizona.box.com/s/x5ps704i3oengmhr4mjern1wne3grvu8>

CAPLA West

The original College of Architecture, constructed in 1965 and expanded in both 1970 and 1979, is a three-story structure with a central atrium (the Sundt Gallery—2,800 SF) that is used for exhibition and assembly. CAPLA West contains many common spaces; the studios and faculty offices are devoted to Architecture:

- College Administration
- Dinsmore Conference Room
- Robinette Conference Room
- Mascia Computer Laboratory
- Student + Alumni Center
- Foundation studios (hot-seats); Foundation Jury Alcoves East + West
- 2nd + 3rd Year B.Arch studios
- faculty offices
- print/plot room (SEE: 1-1.6.2c for recent equipment purchases)
- IT offices
- Heliodon Room; Photography lab; GIS lab
- two seminar rooms
- An 88-seat lecture hall (managed through central University scheduling)

CAPLA east

Designed by Jones Studio and Ten Eyck Landscape Architects, this major addition and renovation opened in 2007 and included 33,650 sq ft new / 37,200 sq ft remodel | \$12.2 million. It has won several design awards:

- 2008 American Institute of Architects | Western Mountain Region Merit Award
- 2010 ASLA | Honor Award for General Design

The design is inspired by celebrating the collaborative nature between the architecture and Landscape Architecture, resulting in a symbiotic relationship between the building and the landscape. Reclaimed water from the roof and HVAC condensate is stored and delivered to the gardens to sustain plant life, which shades the entire southern face of the expansion.

CAPLA East houses:

- administrative offices for both Schools
- faculty offices
- graduate studios
- 4th + 5th Year B.Arch studios
- jury and seminar rooms
- MaterialsLab
- HED-Lab
- ARCHON Seminar Room

MATERIALS LAB

The entire ground level of 7,000 square foot is a state-of-the-art MaterialsLab, with facilities for working wood, metals, glass, concrete, and design/build laboratories. The Digital Fabrication Laboratory offers 3D printing, concrete printing, laser cutting, and digital routing. The Lab also builds equipment and furnishings for the College and takes on contract work during the summer to generate revenue.

HOUSE ENERGY DOCTOR ENVIRONMENTAL SCIENCE LABORATORY (HED-LAB)

The HED-Lab contains environmental simulation and testing equipment:

WIND TUNNEL: A 26-feet long contraction-less boundary layer wind tunnel with a large chamber that tests natural ventilation within and around large scale building models. A smoke apparatus allows visualization of air movement in reaction to form; equipped with high definition web-camera.

SKY SIMULATOR: An “Over-cast Sky Simulator” that tests large models for daylight utilization and optimization in buildings. Its light source models 800-3,600 foot-candle sky intensities while Li-cor photometers and data loggers collect data.

CLIMATE STATIONS: Ten portable “Climate Investigation Stations” for field investigation of microclimates. On-site data collection helps students understand the environment being analyzed.

AUDIT TOOLS: Hand-held equipment for level III advanced energy audits, including: blower door, pressurization gages, thermal and infrared camera, digital non-contact laser guided thermometers, daylight photometers, solar radiation pyrometers, and air balancers.

UNDERWOOD FAMILY SONORAN LANDSCAPE LABORATORY

A high-performance landscape that is both an outdoor classroom and entry plaza. It exemplifies sustainable strategies of water harvesting, climate regulation, air and water cleansing, recycling, urban wildlife habitat and human well-being. The former greyfield is now a thriving habitat that shades the southern exposure of the new building with a vine-covered scrim. An 11,600-gallon tank (in the MaterialsLab) collects water produced by the building to support a desert oasis of native plants.

A green roof has been designed; fundraising is in progress.

architecture studios

Foundation Studio: 1600 SF | 50 students/section/studio = 32 SF/student.

2nd + 3rd YR Studios: 1600 SF | 65 students/section/studio = 25 SF/ student.

4th + 5th YR + MS. Arch Studios: 7800 SF | 130 students/section/studio = 60 SF/student.

M.Arch Studios: 3000 SF | 43 students/section/studio = 70 SF/student.

architecture faculty offices

All tenure / track faculty members have private offices totaling 972 SF for nine non-administrators (108 SF average). The largest four offices are 180 SF; the smallest three are 84 SF. Most of the NTT faculty members who request on-campus quarters share offices totaling 1194 SF (52 SF average). Office sizes range from 42-180 SF per person; up to three per office.

University of Arizona, Downtown (UAD)

UA Downtown (UAD) is in the Roy Place Building, named after one of Tucson's most influential architects of the early twentieth century. Originally built in 1929 for Montgomery Ward, UAD is on a ten year lease from the City (with 50-year lease pending) and serves as an urban laboratory for the development of sustainable urban design strategies that engage the public and set into motion the regulatory environment and services to enable that vision. As a *communiversity*—an interface between college and community—it will connect faculty and students with county, city, business, and community leaders and will contribute to the burgeoning downtown economy.

The total area of the UAD is 22,706 SF (11,353x 2 floors), of which CAPLA controls 2,688 SF in studios and offices.

SUSTAINABLE CITY PROJECT

Housed at the UAD, the Sustainable City Project is a partnership between the Institute of the Environment, the College of Social and Behavioral Sciences, and CAPLA. Its mission is to support and explore sustainable urban development and livable cities through education, outreach, and research. Part think-tank, urban design studio, and community forum, the project will develop community-based solutions to complex urban challenges, including renewable energy, climate change adaptation, economic development, affordable housing, multi-modal transportation, water management, public health, as well as ecosystem and heritage conservation. The Director of the Sustainable Cities Project left the UA at the end of 2014-2015; a search is in progress. After an inconclusive search in 2014-2015, a remaining shortlisted candidate was brought to campus in Fall 2015, but was not hired. The Dean decided to redefine the position as a Professor of Practice (non-tenure track). We will start a new search in 2016-2017.

DRACHMAN INSTITUTE

The Drachman Institute is a research, outreach, and public service arm of the College that conducts projects of relevance to Arizona communities. It is headquartered at the UAD and includes the Drachman Design-Build Coalition, Inc. (DDBC), a 501(c)(3) design-build licensed general contractor for service-learning and public service

Smith House

A historic residence (1,696 SF) facing CAPLA-EAST on Speedway Blvd., the Smith House is an accessory facility for the Drachman Institute and faculty offices.

Cannon-Douglas House

A historic residence (1,143 SF) facing CAPLA-EAST across Speedway Blvd., it partially houses the Institute of Place and Well-Being and will house our new Health and the Built Environment program.

space changes, problems, and needs

The School has excellent facilities with no appreciable problems. The major need in the College is faculty offices. With more faculty in Architecture and new degree programs in the College, tenure-track will be asked to share offices starting 2016-2017.

I.2.3 Financial Resources

institutional funding

University funds flow to the colleges according to the UA's RCM algorithm; the deans make allocations to the units within their colleges according to local priorities. After Dean Cervelli makes unit allocations, the directors are responsible for financial distributions at the school level, aided and overseen by the Assistant Dean for Finance + Administration, who actually manages the accounts.

RESPONSIBILITY CENTERED MANAGEMENT (RCM)

Effective 1 July 2015, the UA adopted RCM,⁵³ which seeks to make transparent actual costs across the University and decentralize funding pools so colleges have greater incentive, and actual control, in financial matters pertaining to them. Tuition is taxed centrally; then distributed based on subscription within the departments:

- Undergraduate tuition return: 75% based on the unit delivering the credit hours (SCH); 25% based on the student's major;
- Graduate tuition return: 75% based on the major; 25% based on the unit delivering the credit hours.

There is a one-year funding lag in the delivery of the differential created by this system. To start the initial RCM fiscal year, colleges were allocated funds based on 2014-2015 funding, less the 2015 budget cut from the State.

Impacts of RCM

Effective the first year of RCM, many centralized fund pools were distributed to colleges based on recent usage; from now on, the colleges will be responsible for managing, and funding increases, in these areas. (They can recoup savings.) They include Employee Related Expense (ERE) and Graduate Tuition Scholarships and waivers. Consequently, when a unit gives raises or hires more people, it must fund the ERE in addition to direct salaries; if it grows its graduate enrollments or increases offers, it must fund the difference.

The implementation of RCM should be favorable for Architecture. Because enrollments dropped significantly in 2014-2015 due to the Recession, we anticipate an improved SCH and MAJOR differential that should increase the University allocation to CAPLA.

⁵³ Overview of UA RCM: <https://arizona.box.com/s/x9k4wi56afm8hzbqsb0ifrzuembqo5zi>

BUDGET CUTS AND FUNDING LEVELS University of Arizona

School of Architecture											
year	CUTS		RESOURCES						USES		
	state cut to	percent	DIFF TUITION + PROGRAM						Personnel	available for	
	Architecture	cut	STATE		FEES		OTHER	total		Operations	
2002-2003		7.3%	\$1,832,242	100%	0%		0%	1,832,242	(\$1,583,571)	-86%	(\$248,671) -14%
2003-2004											
2004-2005	(\$31,776)	2.6%									
2005-2006	(\$16,254)	1.0%									
2006-2007	(\$21,980)	1.3%									
2007-2008	(\$52,269)	3.0%	\$2,205,149	97%	\$76,121	3%	0%	2,281,270	(\$2,043,822)	-90%	(\$237,448) -10%
2008-2009	(\$174,942)	9.2%									
2009-2010	(\$113,216)	7.0%									
2010-2011			1,937,528	83%	398,498	17%	\$0	2,336,026	(\$1,627,445)	-70%	(\$708,581) -30%
2011-2012	(\$109,384)	5.0%	1,760,343	75%	435,470	19%	144,858	2,340,671	(\$1,752,038)	-75%	(\$588,633) -25%
2012-2013	(\$109,593)	5.0%	1,791,627	73%	409,311	17%	260,405	2,461,343	(\$2,086,911)	-85%	(\$374,432) -15%
2013-2014			2,011,461	70%	440,792	15%	438,633	2,890,886	(\$2,105,463)	-73%	(\$785,423) -27%
2014-2015			2,011,461	79%	383,002	15%	141,086	2,535,549	(\$2,052,026)	-81%	(\$483,523) -19%
2015-2016	(\$8,400)	1.2%	2,016,346	78%	393,088	15%	160,301	2,569,735	(\$2,098,102)	-82%	(\$471,633) -18%
total	(\$637,814)	-43%						134.34%			

Since 2002, the School has had a 41% decrease in state revenue in the form of cuts to state support and Differential Tuition + Program Fees (DT+PF); since the last B.Arch Accreditation visit in 2009, the cut has been 18.2%; since the last M.Arch visit in Spring 2013, we've only lost this year's cut.

INCREASES: In spite of these cuts, the School budget is 34% higher over the same period; 13% of this since the last B.Arch visit. How was this possible? How do we account for recent funding fluctuations?

- 2008-2010: When Dean Cervelli arrived in 2008, she campaigned for, and got approved by the Board of Regents, a major increase in Differential Tuition and Program Fees which took effect in 2010-2011. This generated a significant addition to the School's budget and effectively reversed the previous three years' cuts.
- 2010-2011: The School received a new Director's line (\$150K permanent) along with \$50K for his start-up funding. All of the Director's equipment and most of his travel came out of this fund until this year. Also this year, the new M.Arch degree took its first class, adding new Program Fee revenue.
- 2011-2012: The School gained \$26K in permanent revenue from the Provost's merit increases; it had DT+PF gains from an increase in the Foundation class and more M.Arch students. It was able to reallocate 60% of the salaries three retiring senior faculty.
- 2012-2013: Dean Cervelli got the Provost to fund from her hiring package an additional \$83K for a new history + theory line; a second new line for the new healthcare faculty member. The School got a one-time \$109K RCM1 payment, plus a new permanent RCM1 adjustment, from programs launched on the first (aborted) RCM launch.
- 2013-2014: Large enrollments with carry forward from careful budget management the previous year made this the highest revenue year on record.
- 2014-2015: The impact of the Recession on architecture hit the schools: our Freshman enrollments dropped 50% and graduate enrollments dipped. Planning for the implementation of RCM and bracing for a budget cut, we saved and then diverted funds to the College's new Strategic and Reserve Funds (established to buffer us from RCM impacts).
- 2015-2016: CAPLA received a 4.2% cut, but most of this was allocated to the Drachman Institute, leaving Architecture with only a 1.2% cut. We did not get carry forward from last year, which was invested in CAPLA Strategic and Reserve Funds.

revenue

The School's budget is categorized into three kinds of accounts:

STATE: Funds allocated under RCM. (The state legislature classifies tuition, once collected, as a state resource.)

DIFFERENTIAL TUITION + PROGRAM FEES (DT+PF): A surcharge paid by students to study architecture, justifiable given the high cost of disciplinary education in space, equipment, and faculty. Differential Tuition is paid by undergraduates; Program Fees by graduate students. The State considers all tuition, including DT+PF, as State revenue; when we are subject to a budget cut, we lose both a percentage of State allocation as well as DT+PF (though it is actually deducted from the State accounts).

OTHER: Includes surplus carried over from the previous year, grant funding, inter-College adjustments, and entrepreneurial funding (such as Camp Architecture revenue).

The chart above shows that in recent years, as enrollments have dropped and funds have been invested in the college's RCM Strategic and Reserve funds, a higher percentage of our operational revenue has come from STATE funds.

What we are doing to optimize revenue:

- increase enrollments to the capacity of our building and faculty;
- in 2013 we opened a delayed-start Foundation class, offering a Spring ARC 101 and a Summer ARC 102, which allowed us to capture many students from engineering and fine arts who had not understood the implications of their initial majors;
- create new GenEd courses that will earn new SCH revenue from students in other colleges;
- develop new online courses that can capture new markets;
- increase funded grant revenue;
- increase service contract revenue through funded outreach studios; and
- grow Camp Architecture.

expenses

Architecture's expenses are categorized by Personnel and Operations.⁵⁴

PERSONNEL BUDGET

USES		
salaries		
tenure/track faculty	-848,543	
NTT faculty	-706,695	
summer school	-28,500	
wages		
SAs + graders	-206,092	
materials lab monitors	-62,276	
architecture staff	-96,501	
materials lab	-84,974	
advising	-64,521	
subtotal, salaries and wages	(\$2,098,102)	-82%

In 2015-2016 Personnel expenditures will consume about 82% of the budget. This includes salaries and wages for faculty, staff, and student workers. Within Personnel, Faculty salaries consume 75% of the category: tenure/track faculty 40%, non-tenure-track 34%, summer school 1%. 10% of Personnel expenditures go to fund student assistants.

The economics of hiring non-tenure-track vs. tenure / track faculty is what has enabled this School to maintain the size and scope of its programs. Non-tenure-track faculty are less expensive per service performed, because they are not hired in an international market and are *not* typically paid to do Research. Considered as an average total cost-per-CU, NTT faculty are about half the cost of tenure / track faculty; if we add development and support costs, the difference would be greater. (This year, average total pay to NTT will be \$1,934/CU compared to \$3,776/CU for TT faculty.) Although our NTT people make up 69% of the Faculty by number of persons, 50% by FTE, teach 50% of our credit units, and deliver 55% of our Service assignments, they consume only 45% of the faculty payroll.

⁵⁴ The School's summary budget for 2015-2016: <https://arizona.box.com/s/okkqz6w9m5kvcbhzt0t8nxq83v1vbrg75>

OPERATIONS BUDGET

operations		
admin	-80,000	
Materials Lab	-50,000	
IT	-30,000	
accreditation + APRs	-20,000	
Lecture Series + guest critics	-15,700	
studios, projects + faculty support	-45,000	
travel + faculty development	-65,000	
recruiting+PR	-32,000	
search	-18,000	
AIAS + Citizenship	-15,000	
capital projects	-30,000	
RESERVE (carry-forward)		
subtotal, operating	(\$400,700)	-16%
operations contingency	(\$23,582)	-5%
TOTAL USES	(\$2,522,384)	-98%

In 2015-2016 Operations will consume about 18% of the budget. This includes all non-personnel expenses required to run the School, the largest being Admin at 20%,⁵⁵ the MatLAB 12%, and Projects / Faculty Support + Travel + Faculty Development at 27%. The Operations budget is at its lowest dollar amount and percent amount of the last three years because of increased faculty size, internally funded raises for faculty and staff, and dropping revenue.

scholarships and grants

SET-ASIDE AWARDS

14% of Differential Tuition + Program Fees are set-aside for need-based support, the respective funds reserved for the cohort paying into them. 10% of this pool can be given to recruit applicants. We make Set-Aside awards in the early Fall. In 2015-2016, the undergraduate award pool will be \$62,197; the graduate pool \$13,615.

⁵⁵ Admin includes copiers and printers for all architecture and staff, office supplies, shipping, membership dues (such as ACSA for the whole faculty), and about \$20K for phone service used by the faculty.

RESPONSIBILITY CENTERED UNIT WAIVERS (RCW)

24-Sep-2015 graduate aid+awards
2015-2016

		rising	applicants	offers	acceptances	pending	potential	confirmed		budget	awarded	awards relative to degree cohort	awards relative to total grad arch population
M.ARCH	M.ARCH I	9	1	0	0	0	9	9					
	M.ARCH II	5	14	14	4	0	19	9					
	M.ARCH III	23	22	7	0	0	22	7					
	M.ARCH	14	38	36	11	0	50	25					
	resident		24%					28%					
	non-resident		32%					48%					
	international		45%					24%					
								31% accepted offer					
								48% of graduate population in Architecture					
	TA-ships + wages							# semesters, TA-ships + Wagers	16				
								# semesters, TA-ships	11	44%			
								# semesters, Wagers	0	0%			
								STUDENTS on TA-ships+Wages	11	44%		21%	
								DOLLARS, TA-ships+Wages	\$59,242			52%	
MS.ARCH ENERGY	RCW + GCF							students on RCW + GCF	7	28%			
	Responsibility Centered Unit Waivers (RCW)								\$88,889	\$51,000			41%
	Graduate College Fellowships (GCF)								\$11,091	\$16,000			73%
										\$126,242			
	MS.ARCH ENERGY	16	18	18	8	0	34	24					
	resident		11%					25%					
	non-resident		11%					4%					
	international		78%					71%					
								44% accept offer					
								46% of graduate population in Architecture					
	TA-ships + wages							# semesters, TA-ships + Wagers	14				
								# semesters, TA-ships	10	42%			
								# semesters, Wagers	0	0%			
								STUDENTS on TA-ships+Wages	10	42%		19%	
MS.ARCH IND								DOLLARS, TA-ships+Wages	\$51,837			45%	
	RCW + GCF							students on RCW + GCF	6	25%			
	Responsibility Centered Unit Waivers (RCW)								\$44,444	\$42,000			34%
	Graduate College Fellowships (GCF)								\$5,545	\$6,000			27%
										\$99,837			
	MS.ARCH INDEPENDENT	0	7	7	3	0	7	3					
	resident		0%					0%					
	non-resident		0%					0%					
	international		100%					100%					
								43% accept offer					
								6% of graduate population in Architecture					
	TA-ships + wages							# semesters, TA-ships + Wagers	0				
								# semesters, TA-ships	0	0%			
								# semesters, Wagers	0	0%			
SoA								STUDENTS on TA-ships+Wages	0	0%		0%	
								DOLLARS, TA-ships+Wages	\$0			0%	
	RCW + GCF							students on RCW + GCF	3	100%			
	Responsibility Centered Unit Waivers (RCW)								\$16,667	\$30,000			24%
	Graduate College Fellowships (GCF)								\$2,080	\$0			0%
										\$30,000			
	Architecture graduate students	30	63	61	22	0	91	52					
	resident		17%					25%					
	non-resident		22%					25%					
	international		60%					50%					
								36% accept offer					
								100% of graduate population in Architecture					
	TA-ships + wages							# semesters, TA-ships + Wagers					
								# semesters, TA-ships					
								# semesters, Wagers					
								STUDENTS on TA-ships+Wages	21			40%	
								DOLLARS, TA-ships+Wages	\$111,080				
								students on RCW + GCF	16			31%	
	RCW + GCF								\$150,000	\$123,000			
	Graduate College Fellowships (GCF)								\$18,716	\$22,000			
										\$256,080			

RC-Waivers are merit-based awards for graduate students used by Architecture primarily for recruiting (with residuals going to existing students). Until RCM, this fund was held centrally with a fluctuating distribution to units based on yearly need; under RCM, the pool was distributed to colleges. CAPLA holds the pool centrally; if schools go over their allocation, they fund the balance from the unit's operational budget.

Architecture allocates \$150,000 for RC-Waivers serving a current population of 54 students, 34 newly matriculated. In AY 2015-2016, 16 students (8 in M.Arch) received RC-Waivers. Since 2011, our award guidelines have been based on residency (Resident, Non-Resident, International) and qualifications (3 Tiers, Tier A being "most qualified"):

RC-Waivers	resident	non-resident	international	min GPA	
Tier A	\$9,000	\$15,000	\$15,000		
Tier B	\$7,000	\$10,000	\$10,000		applicants
Tier C	\$3,000	\$6,000	\$4,000		
rising student-A	\$4,000	\$5,500	\$5,500		
rising student-B	\$2,800	\$3,800	\$3,800	3.60	rising

For AY 2015-2016, we had more applicants and a higher percentage accepted our offers than traditionally.

GRADUATE COLLEGE FELLOWSHIPS (GCF)

GCF's are need-based awards for graduate students used by Architecture primarily for recruiting (with residuals going to existing students). Until RCM, this fund was held centrally with a fluctuating distribution to units based on yearly need; under RCM, the pool was distributed to colleges. CAPLA holds the pool centrally; if schools go over their allocation, they fund the balance from the unit's operational budget.

Architecture allocates \$18,700 for GCF awarded to 4 students (2 in the M.Arch) in AY 2015-2016. We overspent our GCF budget by \$3,284 (again covered in the CAPLA pool).

STUDENT ASSISTANTSHIPS

graduate assistantships (GAs)

The School typically awards 44 graduate semester-assistantships/year (with full tuition remission and \$2748 in salary, with benefits). Each comes with an obligation to work an average of 10 hours/week. Work includes Teaching Assistantships, IT and Architecture Office support, and individual faculty support. Assistantships require that students have requisite skills for the job and that their academic schedule does not conflict with the job schedule; setting up matches is difficult.

Under RCM tuition waivers were distributed to the colleges; CAPLA manages this pool centrally. If a unit awards more Graduate Assistantships than its allocation (44 semesters/year), it has to pick up the ERE, in which case it costs more to hire a GA than an Adjunct Lecturer for most jobs).

For AY 2015-2016, the School will spend over \$127,000 in salaries to GAs. To date, 40% of our graduate students will be awarded GA-ships this year (11 M.Arch students, or 44% of the program; 10 MS.Arch, or 36% of the program). Assistantships for M.Arch III students are nearly impossible due to lack of disciplinary experience and schedule demands; opportunities increase for M.Arch students as they progress.

RESEARCH ASSISTANTSHIPS

Faculty are encouraged to support students through their funded research. Graduate students are paid on Student Assistantships (except funded by the grant instead of the School); undergraduate students are paid as wage earners.

For AY 2015-2016 there are no graduate and two undergraduate Research Assistants.

student wage earners

The School typically hires about 20 students/semester on wages to support the staff and faculty. This is hourly employment without benefits or waivers. Pay rates vary by the student's experience and the demands of the job:

Student Assistants	hourly	title	
1	\$8.05	level 1 SA	basic helper for attendance and non-skilled work 2014.12-In January 2015, the Arizona minimum wage increased to \$8.05 per hour. The UA is not required to comply with the state's minimum wage law; we will. 2015.07.02-Min wage verified, RM
2	\$10.00	level 2 SA	skilled helper for basic jobs with responsibility
3	\$12.00	level 3 SA	highly skilled helper; previous assistant for the same course
4	\$15.00	level 4 SA	highly skilled graduate student with work experience

Under RCM, it no longer makes financial sense to award hourly work to graduate students.

DONOR SCHOLARSHIPS

The School has a number of scholarships provided by donors, some merit- and some need-based. These are awarded in the Spring for use the following year.⁵⁶

PRIZES

The School has one funded Prize with a second expected in Fall 2015.

Archon Prize

The Archon Prize is awarded for the semester-long work in ARC 302, the Land Ethic Studio. The donor envisioned the Prize to extol values upon which this School has always been based, the so-called Archon Values:

- Genus Loci: The understanding of, respect for, and sensitivity to the spirit of place.
- Design Excellence: The drive to achieve work exemplary for its quality and thoroughness of content and presentation, as well as its holistic orchestration of design.
- Cross-Disciplinary Integration: The synthesis of issues and expertise from all aspects of the designed environment.

The Archon Prize makes three tiered awards totaling \$10,000 and is juried in a day-long, two-stage jury. Students have a vote, along with outside reviewers, in awarding Stage 1; Stage 2 is awarded by three outside jurors.

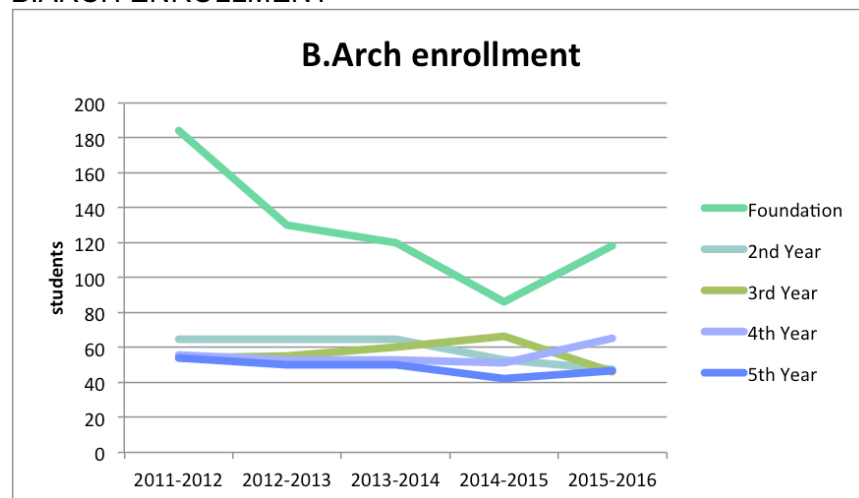
The Archon work is published every year in a book.⁵⁷

FACULTY FUNDING

SEE: I.2.1 Human Resources and Human Resource Development | resources available to the faculty

enrollment fluctuations

B.ARCH ENROLLMENT



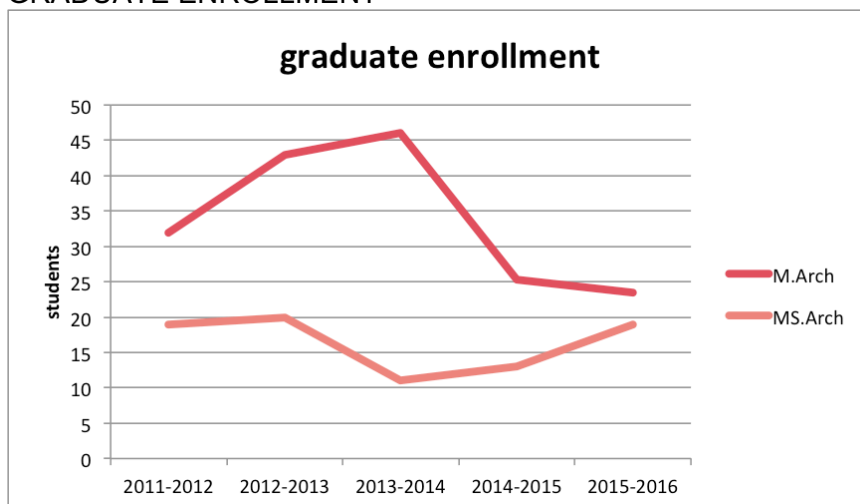
⁵⁶ Donor Scholarships: <https://arizona.box.com/s/b5xmhq9flep9g869k9gt6ikd31dx4uxh> and <https://arizona.box.com/s/9ilqqel1esjb5xqe5lhpu0ky674bcnob>

⁵⁷ Archon Books: <https://arizona.box.com/s/zvlyuqtkrzwj5v76fyu6zuoe33itg9pg>

Undergraduate enrollments dropped 50% from 2010-2014 in response to the Recession and the beating the design and construction industry took in the market and in the press. This has started to turn around. In spite of the shrinkage in applicants for the Professional Phase, improved teaching, expanded attention to a diversity of skills (instead of primarily drawing), and a greater commitment to retention allowed us to limit the impact on years 2-4, although the current 2nd and 3rd year classes are down to three (from four) sections as the enrollment dip makes its way through the curriculum. (The swelling of 3rd and 4th Years in 2014-2015 are the result of initiating Milestone 2.)

Although the market for design education is recovering in parallel with the economy, we are building pipelines into Foundation. Our new pilot program, ARC 100, will award 3-CU of Architecture elective credits starting this fall in a local high school; expanding the pilot will, we hope, allow us to reach potential students with an interest in design who might not otherwise find us. We are building articulation agreements with community colleges. We are also working to expand our summer program for middle- and high-school students, Camp Architecture. Lastly, the B.Arch's reputation as an advanced design and practice education is growing, regionally and nationally.

GRADUATE ENROLLMENT



Graduate enrollments followed the trends experienced in B.Arch, the post-professional MS.Arch less severely than the M.Arch. The M.Arch dip was also partially due to that degree not being accredited until Spring 2013 and our failure to aggressively recruit after filling the initial year with a banner crop; we have yet to build back to a two-studio cohort.

In the M.Arch we have expanded our marketing activities and budget; the culture of the degree is maturing and becoming distinct from the B.Arch (upon which it was initially modeled); and its accreditation will solidify its reputation—which is just finding itself.

In the MS.Arch, we are opening new focus areas. The Independent Option took its first four students this AY; we anticipate opening a Material Technologies focus next year. The existing focus areas, Design + Energy Conservation and Heritage Conservation, are doing more aggressive recruiting.

funding fluctuations

SEE: I.2.3 Financial Resources | revenue.

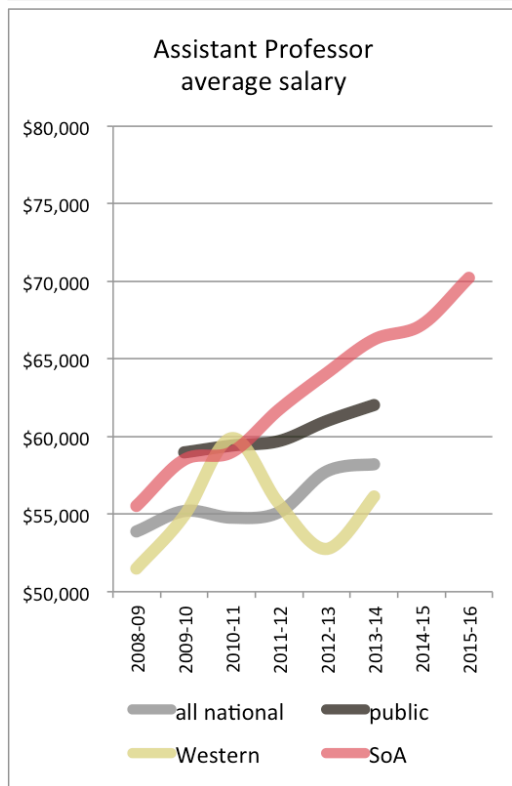
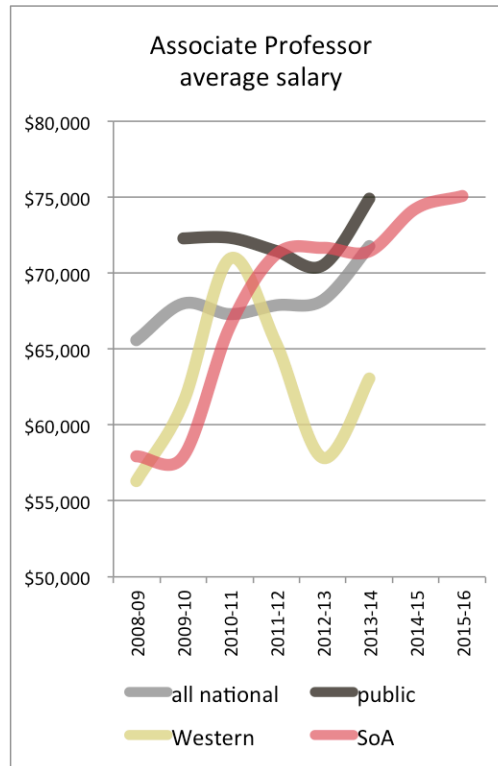
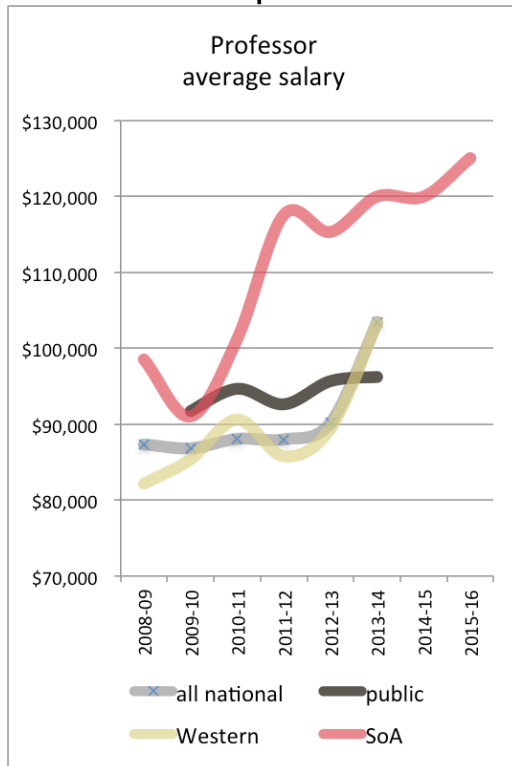
changes in funding models since the last visit

OVERHEAD + GENERAL

SEE: I.2.3 Financial Resources | institutional funding.

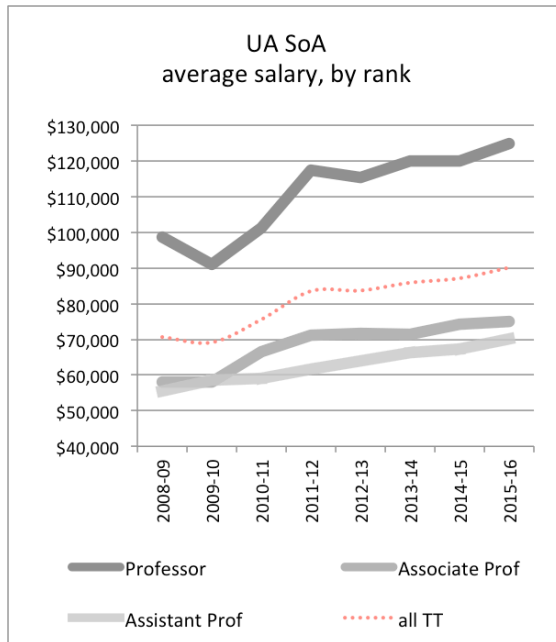
FACULTY COMPENSATION

Tenure / Track Compensation



average salary, by rank				
	2013-2014	Professor	Associate Professor	Assistant Professor
SoA:Arch west		\$103,311	\$63,060	\$56,137
SoA:Arch national		\$103,472	\$71,779	\$58,214
SoA:Arch public national		\$96,233	\$74,907	\$62,031
SoA:UofA		\$120,002	\$71,436	\$66,254
SoA:UofA 2015-2016		\$125,068	\$75,079	\$70,230
average of averages				\$74,169
				\$77,822
				\$77,724
				\$85,897
				\$90,126

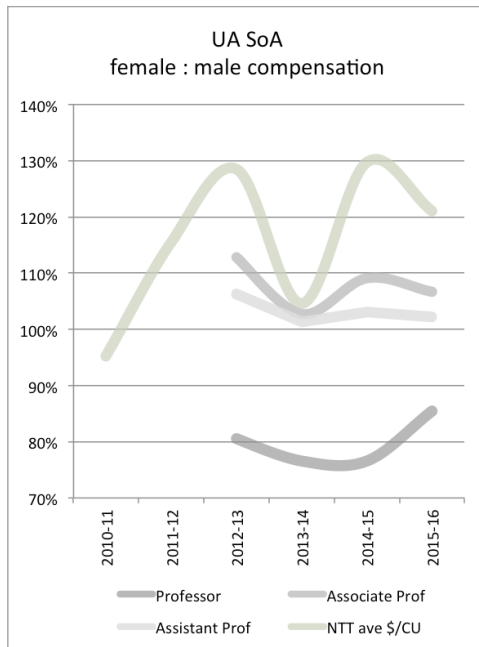
Since the last B.Arch Visit in 2009-2010, we have raised Faculty salaries so they meet or exceed our peers at architecture schools from every category: national, public national, and Western Region.⁵⁸ The impact of the Recession can be seen most clearly in our region; we, nevertheless, [improved salaries and support for TT Faculty](#) by converting retirements to NTT hires and keeping the percentage of our budget connected to payroll to under 85%. SEE: I.2.3 Financial Resources | institutional funding | BUDGET CUTS AND FUNDING LEVELS | expenses.



SoA TT FACULTY
average salary

	Professor	Associate Professor	Assistant Professor	all TT	change
2008-09	\$98,577	\$57,925	\$55,530	\$70,677	
2009-10	\$91,038	\$57,925	\$58,510	\$69,158	-2%
2010-11	\$101,245	\$66,463	\$59,000	\$75,569	9%
2011-12	\$117,597	\$71,250	\$61,750	\$83,532	11%
2012-13	\$115,349	\$71,667	\$64,083	\$83,700	0%
2013-14	\$120,002	\$71,436	\$66,254	\$85,897	3%
2014-15	\$120,002	\$74,247	\$67,191	\$87,147	1%
2015-16	\$125,068	\$75,079	\$70,230	\$90,126	3%
% / YR	4%	4%	4%	4%	

Improving the pay for Associate Professors has been the most difficult due to salary compression, which is clearly shown on the graph above. We have more work to do at this rank. Nevertheless, TT Faculty have received on average a 4% annual increase at every rank over the period from 2008-2009.

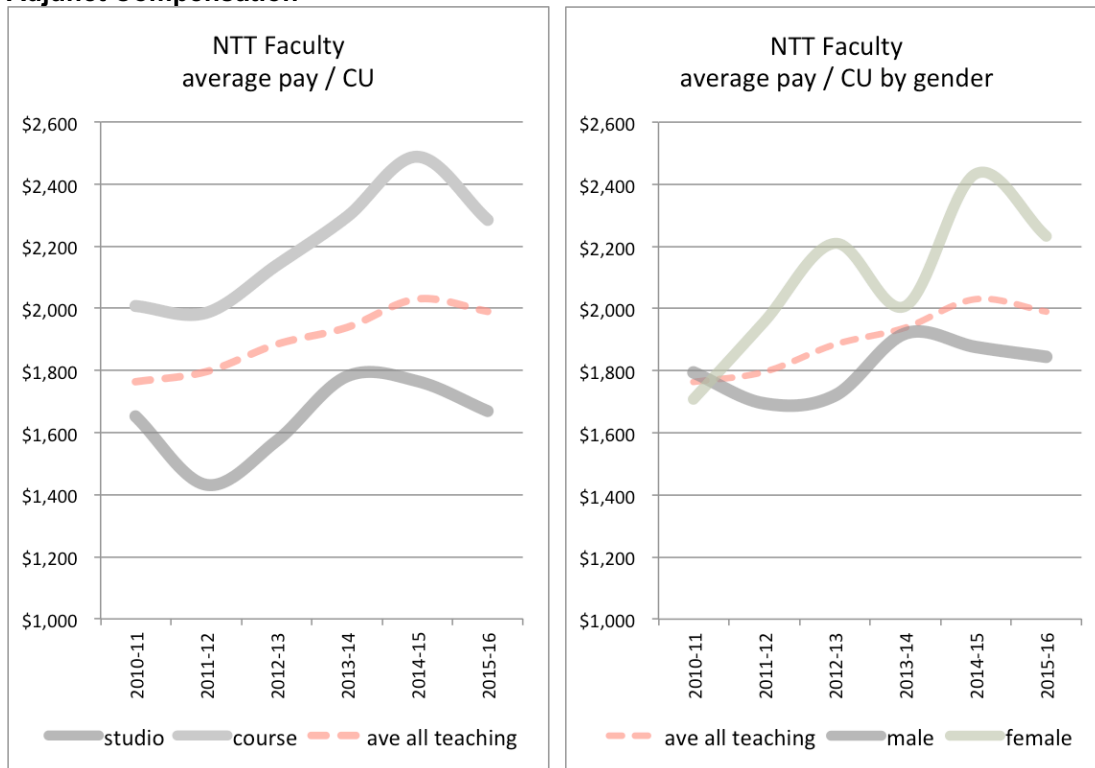


⁵⁸ Non-School data: 2014 Report of the National Architectural Accrediting Board (Washington, DC: National Architectural Accrediting Board, Inc, 2015), Part III, p 9-10.

Tracking average compensation for females divided by that to males, gives a snapshot of gender equity over time. At 100%, compensation would be equal to both sexes. On average, females are compensated more highly than their peers in every category except full Professors; as there is only one female full Professor and three males, and most have varying levels of administrative pay, this is not a meaningful measure.

These increases have been only *partially* funded by the University. Since 2005, the University has given raises totaling less than 8%: there have been no university-wide salary increases since 2009. In 2011-2012 and 2014-2015 the Provost distributed funds to colleges for merit pay increases, which contributed to these increases for select individuals.

Adjunct Compensation



Because adjunct workload is highly variable, the only measure that allows meaningful comparison is pay per credit unit. Examined by type, courses (which require more planning and preparation with expertise which is more difficult to find in a practice community) pays roughly a third more than studio teaching (which at the UA is mostly coordinated and team-taught). Examined by gender, females are more highly paid than men. There has been an average increase of 3% per year in NTT rates.

NTT Faculty carry 55% of the Service in the SoA: working on committees, running lecture series, coordinating studios, etc. This school paid its NTT people an average of \$1,161.00 for this kind of work, on top of teaching, in AY 2015-2016.

NTT teachers at 0.5 FTE or higher for two or more consecutive semesters qualify for benefits; 6-CU equates to 0.5 FTE. Consequently, NTT Faculty members who teach consecutive studios qualify.

There is little accurate data on NTT ("Adjuncts") nationally.

institutional development campaigns

The University is planning a major development campaign that is in pre-public solicitation. There is no specific allocation for the School. In January 2016, the College hired a new Director of Development to replace the person who resigned in Spring 2015.

I.2.4 Information Resources

library resources

FACILITIES

An Architecture Library was founded in 1965 to serve the predominantly undergraduate, design-oriented College. Transferred from the College of Architecture to the University's Main Library in 1993, the collection was housed in the Architecture building until 2005; from 2005-2010 it was held across from CAPLA in the Fine Arts Library of the Music Building; finally in 2010 it was absorbed into the Main Library and Science-Engineering Library. While the Architecture Collection is a functional component in the Library System, its usefulness and availability to the School suffer by its distance of about one-half mile. This has been a space and financial necessity. The University plans for a fine arts library adjacent to CAPLA in its master plan; there is no schedule for construction.

LIBRARY SERVICES

Assistant Professor Robinson is the Liaison to our assigned Assistant Librarian, Cheryl Cuillier, who gives focused presentations in specific courses, such as ARC 201 and ARC 497/597. She also created customized library resource guides for these courses. Ms. Cuillier gave an introduction to Library services at a Faculty meeting in Fall 2015.

The Architecture Librarian provides services during posted office hours as well as by appointment and via email, including instruction in library resources and information literacy at the request of the faculty or on a one-on-one basis to students. Information literacy and lifelong learning skills are also stressed in bibliographic instruction. Other library services include technology lending, 3D printing, reference help (via chat, phone, email, or in person), video streaming, interlibrary loan, online tutorials, a new iSpace (a co-working and makerspace in the Science-Engineering Library), support for data management and grants, and an Open Access Publishing Fund (which awards up to 3,000 to student and faculty researchers to publish within open access journals).

THE COLLECTION

The evolving composition of the collection reflects changes in the School, educational trends, and changes in society. The Library continues to collect heavily in desert architecture, construction systems, and Latin American architecture; it will generally make acquisitions requested by our Faculty. The mission statements of the University, the College, and the University Library reflect a commitment to undergraduate education as well as service to the professional community and the general public.

Architecture resources support these objectives by providing a reference and research collection that is available as a resource for practicing architects in surrounding communities and for the general public.

Holdings cover built work of all time periods, styles, and geographical locations, as well as materials regarding professional practice. History, theory, and criticism are featured along with monographs on architects and works related to construction, engineering, landscape architecture, and planning. When possible, print periodicals have been replaced by electronic journals to provide anywhere/anytime access. An expansion of coverage has occurred in the last few years to include sustainability, design, emerging materials, preservation, and community urban design.

Through the library's website (<http://www.library.arizona.edu>), students have access to the Avery Index to Architectural Periodicals, Art and Architecture Archive, RIBA British Architectural Library, GreenFILE, Arizona Digital Sanborn Maps, ProQuest Sanborn Maps Geo Edition, Art Full Text, Art Abstracts, and Art Index Retrospective, as well as a variety of interdisciplinary databases including Academic Search Complete, Lexis-Nexis Academic, JSTOR, and General OneFile. The Library also offers Summon, a search tool that enables students and researchers to search across millions of items at once. Summon includes the Library's entire catalog, most of the content in its subscription databases, digitized content from Special Collections, and open access content. The Library's campus repository holds more than 4,300 dissertations and theses written by UA students on the topic of architecture. The theses and dissertations have been digitized and are available online to a worldwide audience.

Library content that supports architecture:

- Books 39,622
- E-Books 4,282
- Video/Film 486
- Serials 580
- E-journals 151

Visual Resources and Other Non-Book Resources

The Library subscribes to ARTstor, an online database of 1.8 million images. These include famous historical landmarks as well as images and architectural plans of historical sites past and present. Images from basic textbooks are included, as well as images from major museum collections and private collections (<http://www.library.arizona.edu/search/articles/dbfind.php?shortname=artstor>). The Library also subscribes to Oxford Art Online, which features more than 7,000 searchable images, including architecture photos, drawings, and floor plans. The Library also subscribes to video databases such as Films on Demand, which features hundreds of architecture documentaries, videos, and lectures.

In the Library's Special Collections, digital collections available for teaching and research include:

- The Joesler Collection: construction drawings by one of Tucson's celebrated architects.
- The University of Arizona Photograph Collection: images depicting the history of the University.
- The Arizona, Southwestern and Borderlands Photograph Collection: historic images of buildings.
- The New Deal in Arizona--Connections to Our Historic Landscape: historic public structures and buildings constructed during the New Deal era of the 1930s and 1940s.

We have retired our slide collection as well as Imagen, our in-house Online Multimedia Database, due to its cost and the ubiquity of quality material available on the web. We have deaccessioned the Arizona Architectural Archives, also as a financial imperative.

black market library

To bridge the problem of distance, Professor Robinson runs a small circulating collection from donations, faculty loaners, and School purchases in order to promote student familiarity and love of published artifacts. We refer to this as the Black Market Library. It is kept in the Alumni and Advising Center where it can be casually monitored by the Office Staff. We currently have 103 volumes containing: Monographs, Building Type, History + Theory, and Practice (drawing, representation, sustainability, etc.) works. Highlights include Five Architects, Learning from Las Vegas, Ester McCoy's monograph on Craig Ellwood, and John Vlach's Back of the Big House.

information resource issues

Online access to research and reference has hugely expanded and lessened the need, although not the desirability, for a physical facility.

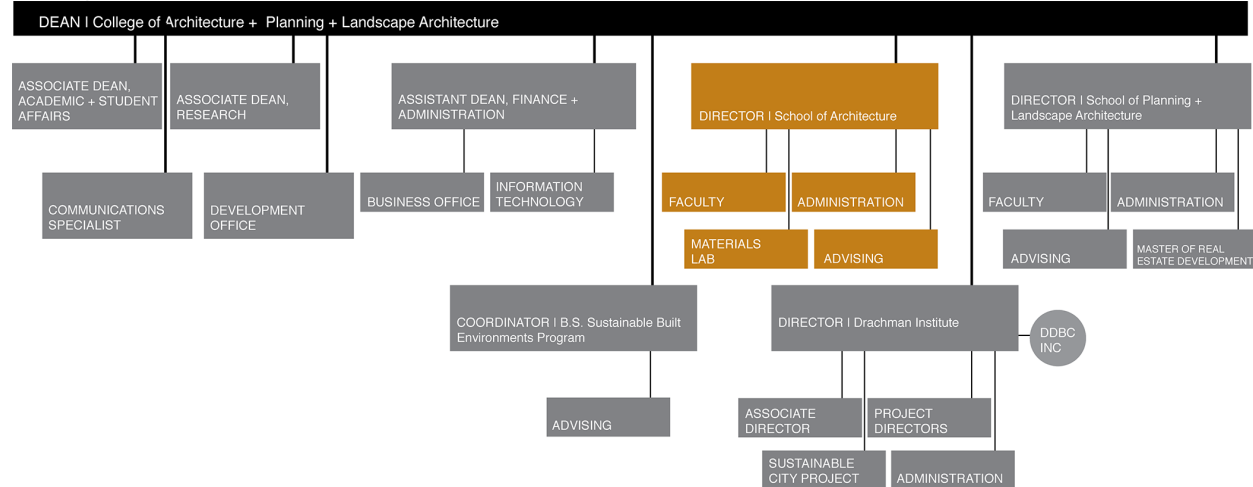
I.2.5 Administrative Structure & Governance

university

The terms of governance and the rights of personnel are outlined in the University Handbook for Appointed Personnel (UHAP), which had a significant revision in 2014.⁵⁹

⁵⁹ <http://hr.arizona.edu/policy/appointed-personnel/>

college



The College is governed by Bylaws, contained in a Handbook⁶⁰ that guides faculty, academic professionals, and staff through issues related to promotion and tenure, annual performance review, post-tenure review, merit salary adjustments, sabbatical leave, maternity/paternity leave, family and medical leave, and student academic appeals. It was significantly revised in March 2013 with minor revisions since. The presiding officer of the faculty (or assembly) is the Chair of the College Assembly who is elected by the Faculty.

The spirit of authority within the College is described in its Bylaws, within the statement defining Shared Governance:

The college is more than a community of faculty and administrators.... In principle, every member of the community has a voice and that voice should be respected, heard, and acknowledged within the community. Shared governance is not intended to weaken or deny executive authority. It acknowledges that the responsibility for final decisions within the college rest with the Dean and the Dean's designees. Nevertheless, shared governance implies a particular way of consulting and interacting with people before decisions are arrived at, and then explaining these decisions to the affected personnel or their representatives after they have been made....

The intent of this paragraph is the inclusion and involvement of members of the college community at all organizational levels, from the school level through the Dean's office.

The College Bylaws outline the structure of three principal standing committees. A Constitution and Bylaws Committee is charged with reviewing and making proposals to the General Faculty. The College Faculty Status Committee reviews and makes recommendations to the Dean on matters of promotion and tenure; there is no unit level committee review. The College Curriculum Committee reviews and approves curricula that have implications or audience beyond a single unit.

The Bylaws also make provision for a Dean's Faculty Advisory Council and Dean's Staff Advisory Council.

Though not covered in the ByLaws, the Dean is in weekly consultation with a group informally called Dean & Directors, consisting of: the Dean, the Dean's Executive Assistant, the school directors and Drachman Institute Director, the Director of Development, the associate deans, and sometimes the Coordinator of the Sustainable Built Environments program.

The Dean is the chief executive officer of the College and has authority over all disbursements and transactions below her. Under Responsibility Centered Management, funds flow according to activity to the college level after which disbursement is at the prerogative of deans.

⁶⁰ <http://capla.arizona.edu/capla-faculty-staff-and-student-handbook>

school of architecture

Subordinate to the College Bylaws, each school may have Bylaws that may expand upon, but not contradict, those of the College. The School of Landscape Architecture and Planning does not have Bylaws; Architecture's Bylaws were largely nullified by the complete revision to the College Bylaws in 2011-2013 and have not been revised.

FACULTY WORKLOAD AND PERFORMANCE REVIEW

A typical workload for tenure / track Architecture faculty members in effort is 60% Teaching, 20% Research/creative activity, and 20% Service. Workload for non-tenure-track faculty members varies dramatically and rarely includes Research.

Faculty are assigned work and reviewed for their performance in a two-stage process. The documents indicated are digital and accessible by the faculty member, the Director, the Mentor (if any), and the School Faculty Status Committee.

Distribution Of Effort (DOE)

This distribution and accounting of effort (DOE) was instituted by Dean Cervelli in 2010 and is administered by the directors. Faculty members negotiate their teaching assignment and a forecast of Research and Service at the beginning of the academic year with the Director, which is entered by him into a digital DOE. The faculty member then makes goals relative to this assignment; Mentors of tenure-track faculty are expected to review and advise during this activity; they have a place on the DOE to register formal advising.

Faculty assignments are estimated as LOAD and as DOE-units under the College's Distribution of Effort (DOE) system.⁶¹

Annual Performance Review (APR)

At the end of the calendar year, faculty members are assessed in a five-step review using a digital APR form that is linked to the relevant DOEs, also on the server. The assessments have both narrative and numeric evaluation. APRs are the basis of merit pay increases, when available.

1. Self-Assessment: Faculty members report their actual activity during the year; they assess themselves relative to their goals and ambitions.
2. Mentors: Mentors assess performance and progress of their Mentees toward tenure.
3. FSC: The School Faculty Status Committee assesses tenure / track faculty and multi-year non-tenure-track faculty members; their assessment is advisory to the Director and not visible to the faculty member. The School Committee does not have jurisdiction over matters of promotion and tenure.
4. Director: With input from all the above, the Director provides written assessment; then meets to discuss the review. The Director may revise the APR based on the meeting. Faculty members may appeal the Director's evaluation to the Dean.
5. Dean: The Dean may review the final APR.

PROMOTION + TENURE

SEE: Section 4 / promotion and tenure, below.

COMMITTEES

The Faculty is involved in School governance primarily [through](#) their participation and control of the following committees (all at a School level, unless noted*):

⁶¹ Each DOE unit is represents a weekly-hour of efficient and focused work across the academic year. A full workload is established as 40 DOEs per AY-week and is equivalent to a LOAD of 1.0 and an FTE of 1.0. This system relates different kinds of work (under Teaching, Research, and Service) back to a common unit by comparing what a task should require, if efficiently done, relative to the ideal capacity of a 40-hour/32-week academic year. While no one can expend more than 100% Effort, the DOE Load calculation allows Faculty to be acknowledged for working more, or less, than their peers.

- College Faculty Status Committee*
- School Faculty Status Committee
- College Curriculum Committee*
- School Curriculum Committee*
- Admissions and Recruiting Committee* (one for each degree or degree program)
- Studio Coordinators
- Studio Stream
- Design Communications Stream
- History + Theory Stream
- Practice Stream
- Technology Stream
- Faculty Search Committee
- College Lecture Series*

Students are represented on all committees, except those that deal with P&T.

II.1.1 Student Performance Criteria

SPC Guide

When the NAAB issued the *2014 Conditions for Accreditation*, our Faculty found them to be less prescriptive, more principled, and capable of greater adaptation to specific teaching philosophies than were the previous *Conditions*. We thought them, in short, a huge improvement. We consequently adopted them in the spirit in which we felt they had been offered: inviting us to apply them to our pedagogy, rather than bending our pedagogy to fit the SPC.

Our adoption of the SPC occurred in two parallel efforts: we analyzed the SPC against the aims of our coursework. Because we do not teach in packets that perfectly align with NAAB's SPC, and because the new SPC are more sweeping and conceptual, we broke the latter into Partial Claims. A simple example: We teach A.1 Professional Communications Skills in different courses, under different curricular Streams, depending whether they are graphic, written, or oral skills. So, we have three Partial Claims under A.1 (A.1.G, A.1.W, and A.1.O) that is our interpretation of the Criterion and allows us to assign responsibility precisely where it is taught. The Partial Claims in aggregate satisfy the original SPC, but the SPC are fulfilled in terms of how we teach. They are an adaptation of NAAB requirements to the School's pedagogy.

We also believe that effective learning occurs best when lessons are repeatedly offered with increasing sophistication. So while the Visiting Team will not necessarily engage them, the School supplemented its Partial Claims with Introductory ones: preparatory learning objectives that initiate SPC topics long before we satisfy the actual Criteria.

The breakdown of SPC into Partial and Introductory Claims, along with the matrices showing their course assignments, is collected in the School's SPC Guide.⁶²

preparatory and pre-professional education

BACHELOR OF ARCHITECTURE

There are no standard allowances given to incoming students for preparatory education. In the event of an individual transfer into the degree, we follow the process outlined in II.3 Evaluation of Preparatory Education | Bachelor of Architecture. In the period 2012-2015, there has been only one transfer into the B.Arch from another architecture school.

MASTER OF ARCHITECTURE

There are no standard allowances given to incoming students for preparatory education in the M.Arch III and II students: all SPC are fulfilled within our program. Students admitted with advance placement into M.Arch II are qualified under the process described in: II.3 Evaluation of Preparatory Education | Master of Architecture | **M.ARCH II ADVANCE PLACEMENT (M.ARCH I)** below.

⁶² SPC Guide: <https://arizona.box.com/s/3mbxctjumkwzhvkh85iu1r79o9082kx>

matrices

The B.Arch and M.Arch matrices are inside the SPC Guide.⁶³

Realm C

When 2009 B.6 Comprehensive Design was elevated to its own Realm in the *2014 Conditions*, it was subdivided into three parts that reflect a progression of practice activity: Research, Evaluation, and Design.

C.1 RESEARCH

UNDERSTANDING of the theoretical and applied research methodologies and practices used during the design process.

In both accredited degrees, C.1 is situated where our students demonstrate the most advanced theoretical and applied research: in the B.Arch Capstone and the M.Arch Master's Project. While students develop Research understanding throughout the respective studio sequences, they are best prepared to do advanced inquiry—ones that have meaningful design implications—after they have mastered fundamental design. SEE: II.1.1 Student Performance Criteria | milestones, below.

At this stage of the curricula, our students use many methods of research in the course of investigating, identifying, and selecting solutions to problems encountered in a complex architectural project: site, program, urban context, building systems, structural options, material selection, habitation, sustainability, architectural language, and philosophical positions in architectural discourse.

C.2 INTEGRATED EVALUATIONS + C.3 INTEGRATIVE DESIGN

ABILITY to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.

ABILITY to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

Because the ability to make assessments in a way that leads to meaningful design decisions is *already* design, C.2 and C.3 are assigned to the same studio for both accredited degrees (ARC 401 and ARC 510e). In each case, the project is a large complex building and the studios have shared deliverables with their respective versions of Contract Documents and with one course from our Technology Stream: ARC 421 | Environmental Control Systems 2 in the B.Arch; ARC 520e | Structures 2 in the M.Arch.

Consequently, the pedagogical overlap of a studio with two support courses involving shared deliverables creates a structure of integrated decision making based on complex variables and multiple systems.

B.ARCH—ARC 401 | Systems Integration

The pedagogy of this studio is based on a charrette framework—meaning focused periods of intense activity, not sleep deprivation. The charrette methodology is used to bring the class—the *whole class*—to achieve useable work at the same time and to teach the importance of committing to decisions in sequence from which there is no retreat. The studio's strict phasing (concept, schematic, and development design) ensures that students address key integrative issues while they iteratively develop their designs. They also propel the work forward by forcing multiple, but differing, considerations of the project through different focuses. The charrettes prevent any student from being mired in a personal design process while accommodating personal process inside the larger iterative method. The charrettes are:

- Site Analysis and Existing Infrastructure,
- Structured Parking Integration (underground parking),
- Exiting and Vertical Circulation (stairs, ramps, elevators, egress), and
- Key Wall Section and Elevation Composition (exterior envelope).

Consulting engineers partner in the delivery of this studio and work with our students on their individual projects, analogous to how they would work in practice:

⁶³ SPC Guide: <https://arizona.box.com/s/3mbxctjumkwzhvkh85iu1r79o9082kx>

- 1. The consultants provide narratives on the project's specific issues and opportunities from their discipline's perspective (SEE: MEP example).⁶⁴
- 2. The consultants deliver systems integration fundamentals to the class emphasizing issues relevant to the semester project per their specific discipline. Content includes case studies, system types (uses, benefits and drawbacks), rules of thumb, and planning strategies.
- 3. The consultants offer workshops in which students get feedback on their designs, both in person and via pdf mark-ups (example attached).⁶⁵
- 4. The consultants participate in the mid-term and final reviews.

Recent consultants:

- 2014F & 2015F—MEP: Rob Thompson, Chief Mechanical Engineer SmithGroupJJR
- 2014F—Structural: Thomas Griffis & Warren White, Structural Engineers, Holben Martin & White Structural Engineers
- 2015F—Structural: Cliff Paul, Structural Engineer, PK Associates

The ARC 441 | Contract Documents schedule is coordinated with the charrette sequence. Site, stairs, wall sections, elevations, and other issues of concern to both courses are discussed prior the relevant charrettes. BIM is required.

Additionally, ARC 421 | Environmental Control Systems 2 is given access to the MEP narrative so relevant system approaches can be covered in that class.

M.ARCH—ARC 510e | Advanced Studio 2

The pedagogy focuses on examining the decision-making process, itself, even as students are making decisions. This creates awareness that a) nurtures better and more timely decisions, and b) improves communication about how the design was developed. Rem Koolhaas and the Office for Metropolitan Architecture (OMA) is used as an example, specifically the various truss designs for Milstein Hall, criteria used, and how their hybrid solution was arrived at—giving students a multi-system integrated model.⁶⁶

During design students are required to stop and graphically document their decision making in three steps:

- define frame the problem being addressed;
- state the criteria by which the problem will be assessed; and
- evaluate by applying the criteria.

There is a studio-wide design process orchestrated in phases. During conceptual design, students document decision-making for ordering the program; in design development, they show a [rationale](#) for the selection of a material palette and the envelope design. ARC 510e includes informal modules, one in building skins and one in environmental control systems, where the respective faculty members teach and critique to their expertise.

Because ARC 510e is the first studio in which many students use BIM (required), they start by developing a case study of a systems-intensive building that demonstrates integration and good design. Students work on teams, each modeling a distinct building system using a shared building information model. The subject is a building on campus for which we have a full CD set; there are site visits. Students can see how building systems work, relate to other systems, and inform the design. They use transparency to graphically display multiple systems in isometric views in the digital model. Students eventually produce a similar set of isometric views, describing the integration of the systems, for their project. They are required to provide evidence of systems integration in their architectural drawings (sections and reflected ceiling plans are often where this is clearest).⁶⁷

methodology for assessing work

We have four levels of work assessment, all of which contribute to our benchmarks for no-, low-, and high-pass work.

⁶⁴ ARC 401_2015_2FA_MEP Narrative-Architectural Annotation: <https://arizona.box.com/s/ak0bvtia5k8j22drcphd0fa8pgs7uqwg>

⁶⁵ ARC 401_2014_2FA_Mechanical Consultation_McQuillen-RESPONSE:

<https://arizona.box.com/s/c5mssm4et2bnpx868rmz3oza9ednzwwg>

⁶⁶ ARC 510e-Design Decisions Lecture: <https://arizona.box.com/s/k2rvvfnmwiux9zz13e0m8lo4r96ula92>

⁶⁷ ARC 510e-2015s student work: <https://arizona.box.com/s/w52688vvfjb74nrtea3turso9c28x1xy>

GRADING

At the level of individual faculty members, we [ask them to apply](#) a common grading standard. In the B.Arch we define a grade of C as base competence, or PASS (so that C- is “low pass”). Students must have a C or better in every studio to advance. As defined in our syllabi:

Fulfilled all course requirements with competence. (Competence: the answering of all requirements; adequate fitness, ability, capacity; sufficient for the purpose.)

In the M.Arch, base competence is a B and students must have a B or better in every studio to advance. As defined in our syllabi:

Less than complete or competent work in some areas; requirements lacking and/or sub-standard quality.

COORDINATED STUDIOS

At the level of a multi-section studio, a Coordinator is asked to oversee SPC delivery and insure that grades are calibrated across sections. In some studios, faculty members discuss student work and grade tiers before grading; in others, they actually give grades to students in other sections for part of the semester grade. They calibrate to the benchmark PASS described above.

All B.Arch studios, except ARC 451a/b, are coordinated and have coordinated grading. The M.Arch does the same when it has sufficient enrollment for multiple studios.

CURRICULAR WALK-THROUGHS

At the level of Faculty teaching in each degree, we have end-of-semester “walk-throughs”: we pin up the work of the semester and walk through it by level and chronologically. We compare high- and low-pass student work to the respective project briefs and syllabi; then we adjust the benchmarks expected of each studio and what the difference should be between a no- and low-pass work.

In the B.Arch, a single walk-through involves only studios (five levels); in the M.Arch, three separate walk-throughs are held by level (M.Arch III, II, and I) and include all courses.⁶⁸

MILESTONES

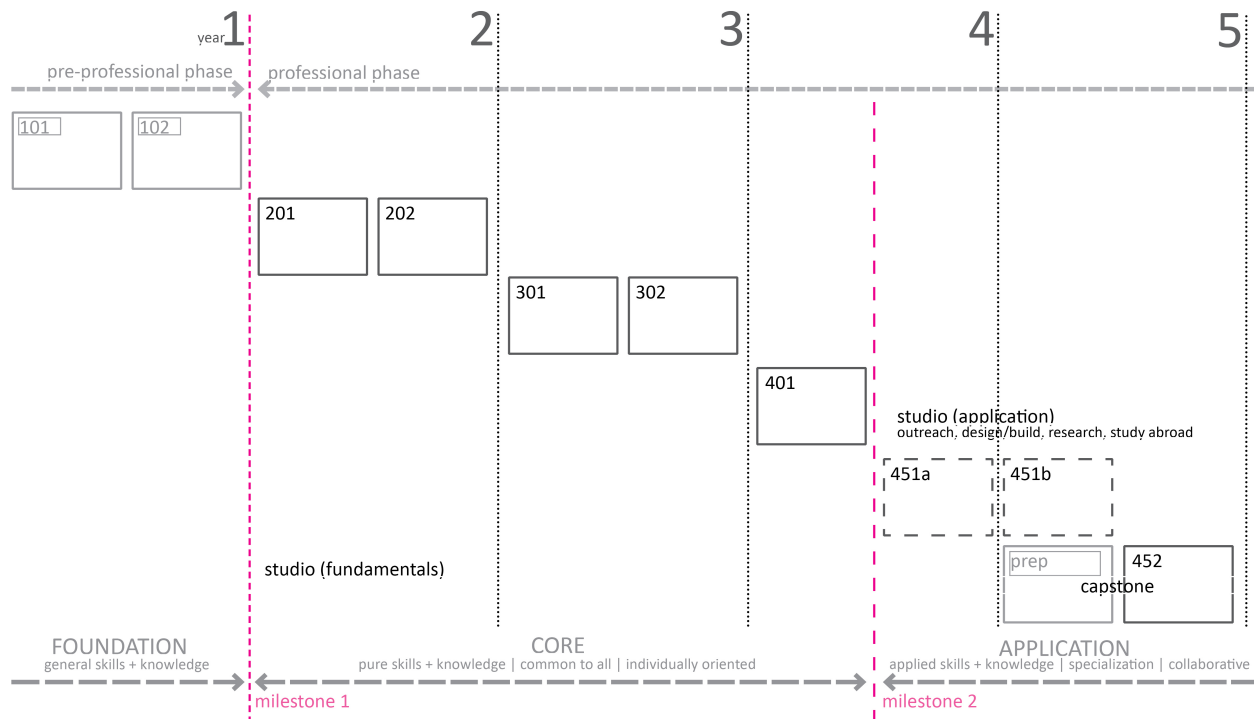
At the level of the collective Faculty, we have Milestone evaluations. Milestones are non-grade-based performance assessments placed between curricular phases: two in the B.Arch; one in the M.Arch. Their purpose is to insure that students are acquiring and retaining skills and knowledge, not just passing courses. They insure that students have the broad requisite skills and knowledge intended for one curricular phase and needed for the next. They are a backstop against grade inflation and they incentivize students to take responsibility for their own education and development as a young architect.

B.Arch

The B.Arch curriculum is divided by two Milestones into three phases: Foundation, Core, and Application.

⁶⁸ See I.1.6.B. Curricular Assessment and Development | Curricular Walk-Throughs, page 20

B.ARCH CURRICULUM: studio sequence



Foundation

Foundation indoctrinates students into architecture culture. It delivers a breadth of introductory skills and knowledge that are built upon later in the curriculum: hand drawing, modeling, fundamental and iterative design, history+theory introduction, graphic design, oral presentation, precedent, and logic.

Milestone 1

Milestone 1 is competitive. Applicants are ranked according to overall GPA, studio grades for ARC 101 + ARC 102, history+theory seminar grades,⁶⁹ and the outside evaluation of an anonymous exhibition of work; an additional Award of Merit may be given by Foundation Faculty.⁷⁰ The Exhibit is of the student's own work and curation, to a fixed panel size, displayed in the Sundt Gallery. It is expected to present an example of composition, clarity, creativity, spatial thinking, design communication, thoughtfulness, order, and craft. A four-person jury (comprised of faculty members who do not teach in Foundation, an upper division B.Arch or M.Arch student, and practicing architects) scores the Exhibit.⁷¹

There are three possible outcomes from Milestone 1:

- Student is accepted into the Professional Phase;
- Student is not accepted but encouraged to retake one or more Foundation studios; or
- Student is not accepted and not encouraged to continue in Architecture.

The number of students who pass Milestone 1 has varied tremendously. Until 2013, approximately 200 students entered Foundation; 100 entered Milestone 1; and 60 entered the Professional Phase. In the aftermath of the Recession, applications to Foundation dropped as low as 83 students, of which we accepted about 50 into the Professional Phase. We like to think we improved our teaching and retention in response to the Recession. In 2015-2016, 120 students remained in Foundation as of Fall census.

⁶⁹ During ARC 101 students are introduced to concepts, themes, precedents and movements in a history+theory seminar consisting of weekly lectures, journals, and essays. The average grade from these assignments, including attendance, constitutes the History+Theory score.

⁷⁰ Award of Merit: Up to five merit awards may be awarded in each of three categories (dedication, improvement, and exemplary performance and leadership) to students who complete ARC 101 and ARC 102 in consecutive terms. Candidates are nominated and voted on by the Foundation Faculty.

⁷¹ For B.Arch Milestone 1 documents, SEE: <https://arizona.box.com/s/6lc6nhv5t5v1244duwj89qdbc7p8t44a>

Core phase

The Core phase gives individual students the fundamental knowledge and skills required by NAAB and the School. It is characterized by individual learning and delivers common lessons that every architecture student needs to master.

Milestone 2

At the juncture between Core and Application (mid-4th Year), Milestone 2 checks for individual accomplishment that should be indicated by passage to this point in the curriculum. Starting in 2nd Year, students are introduced to the Milestone and its requirements.⁷² It is based on an anonymous annotated portfolio of five projects and a scholarly paper; the portfolio template is provided by the School so only the contents are evaluated. It is evaluated by more than seven faculty, including the Coordinator of each curricular Stream; the Studio stream is evaluated by three faculty members: one who is familiar with the work of the class, one who is not, and the Director.⁷³

There are three potential outcomes from Milestone 2:

- Student passes into Application phase;
- Student passes into Application phase with structured options:
- >the requirement to take a skill-building section of ARC 451a and possibly ARC 451b; and/or
- >the requirement to take additional courses to strengthen identified Stream weaknesses; or
- Student returns to an earlier point in the studio sequence according to remediation needed, along with co-requisite courses; possible return to courses to strengthen identified Stream weaknesses.

In 2012 we ran Milestone 2 as a pilot with no consequences; in 2013 it was officially part of the curriculum.⁷⁴ Student performance in Milestone 2 has slowly improved in the Studio Stream but evolved in the non-studio Streams as the respective Stream Faculty are starting to expect better results.

	portfolios flagged	retake studios	controled 451 selection	ECS improvement req'd	H+T improvement req'd
2013	6	5	14	0	0
2014	5	4	11	2	8

Students are starting to take the Milestone seriously. Faculty members who previously were generous graders, but have witnessed students being returned to their studio level for another round, have started taking the School grading standard more seriously.

Application phase

In the last three semesters, students *apply* their Core skills and knowledge to situations analogous to practice. Where pedagogy was previously oriented to individual teaching and verification, it is now based on collaboration; where previously students were directed and given clear instruction, they are now required to speculate and inquire. Projects in the Application phase are more ambiguous, less structured, and often for actual clients and projects.

The Application phase has two overlapping components: Applications Studios and Capstone.

ARC 451a / ARC 451b | Applications Studios

The two semester studio sequence following Milestone 2 invites students to select from a set of options that may be mixed or taken twice. The purpose of this studio-set is to allow students to explore interests, get exposure to professional delivery, and inflect what has to this point been largely a fixed education with individual direction.

Effective Fall 2015, ARC 451b became co-convened with ARC 510f, mixing graduate and undergraduate students.

- Urban Design + Outreach: Run out of the University of Arizona, Downtown (UAD), this studio tackles urban design issues and projects for Tucson and the region. Most projects are funded and run for actual clients or for the City. The Fall studio (451b-UD) is Architecture only; the Spring (451a-UD) is a multi-disciplinary studio with Landscape Architecture and Planning (both students and professors).

⁷² Milestone 2 introduction: <https://arizona.box.com/s/yug19qnosy3rzvdcil352y7cm9mdiwig>

⁷³ Milestone 2 requirements: <https://arizona.box.com/s/zw3h1jb81yf7p0tfrb4n0mnva46t8z7>

⁷⁴ Milestone 2 Implementation Timeline: <https://arizona.box.com/s/prba99vg6qczgrt0s9bq5ngd83vkjz6w>

SEE: **I.2.2 Physical Resources** | University of Arizona, Downtown (UAD) and Section 4.
Supplemental Material | offsite program questionnaire | UAD.

- Design/Build: Utilizing the MaterialsLab and building on a 15-year tradition in the School, the design/build studios vary from furniture to small buildings, from on-campus to public structures. Most are funded and serve actual clients. Recent projects:
 - five DDBC Houses: The Drachman Design-Build Coalition sustainable / affordable houses (since 2006).⁷⁵
 - Rose Pedestrian Bridge, Rose Elementary School, City of Tucson (2009).⁷⁶
 - four Bus Shelter Prototypes, City Of Tucson (2010–2011).⁷⁷
 - two Bus Shelters, City Of Marana (2011–2013).⁷⁸
 - Arizona Children's Association (AzCA) playground (2011–2013).⁷⁹
 - Sustainability Laboratory and Urban Garden (SLUG), Tucson City High School (2014-2015).⁸⁰
 - CAPLA West Face (PENTAPUS): landscape + gridshell construction (2015-2016)⁸¹ also part of the Thinking While Doing Consortium, SEE: I.1.1History and Mission | School of Architecture | MISSION | Research | **Pedagogy of Practice Education**.
- Research: The Research option gives students the opportunity to work in support of a faculty member doing scholarship or funded research. The studio topic will align with the faculty member's focus area; students will be given a sub-area of research. Product from this studio varies from design projects to library research to fabrication and lab work.
- Study Abroad: We have exchange agreements with a coalition of 11 universities in Sinaloa, Mexico; and are in process with Pontifica Universidad Catolica and Universidad Diego Portales, Santiago, Chile. We have a new Fall program this year in Orvieto, Italy that includes 5th Year B.Arch, M.Arch, and MLA students. Recent study abroad opportunities:
 - 2006 Faculty-led, 6 CU, Orvieto, Italy.
 - 2008 Faculty-led, 6 CU, Orvieto, Italy.
 - 2010 Faculty-led, 6 CU, Orvieto, Italy;
student exchange, Escuela Técnica Superior de Arquitectura de Madrid (ETSAM), Spain.⁸²
 - 2012 Faculty-led, 6 CU, Orvieto, Italy;
Faculty-led, 6 CU, Muscat, Oman;
student exchange, Universidad Politecnica de Valencia, Spain.
 - 2013 Faculty-led, 6 CU, Orvieto, Italy;
Faculty-led, 3 CU, Hong Kong, China.
 - 2014 Faculty-led, 9 CU, Chile;
Faculty-led, 6 CU, Orvieto, Italy;
host 21 students @ CAPLA from Instituto Tecnológico de Monterrey, Mexico;
student exchange, University of Liverpool, England.
 - 2015 Faculty-led, 6 CU, Scandinavia;
Faculty-led, 9 CU, Orvieto, Italy;
Faculty-led, 6 CU, Prague, Czech Republic;
student exchange, University of Liverpool, England.

Capstone

The final year is devoted to the production of a terminal project. The default Capstone mode is for students to select a professor to work with and adopt that teacher's theme, site, and program. Students with a record of high performance may make a proposal for a custom project including, for those students who had high competency in ARC 401 and proved beyond question their SPC competence, a non-

⁷⁵ DDBC Houses: <https://arizona.box.com/s/zrha49k15u38vslemv831k5wkuo5dc9l>

⁷⁶ Rose Pedestrian Bridge: <https://arizona.box.com/s/1zre0dphpef33vbjb5s10919repinsmy>

⁷⁷ Tucson Bus Shelters: <https://arizona.box.com/s/aasrlmbu2kcobvth8f3yp4xiwr6wwzuz>

⁷⁸ Marana Bus Shelters: <https://arizona.box.com/s/fb3kwoexhr0j9vwolculdjiqdhgr0s3r>

⁷⁹ AzCA Playground: <https://arizona.box.com/s/yixn0v4eftzavql1ew4zj06uwa56bki>

⁸⁰ SLUG: <https://arizona.box.com/s/real9izpc8q248pnm0drz0qlhwigmarg>

⁸¹ PENTAPUS: <https://arizona.box.com/s/26i4znvenrpte9b06iil85yy5xwyfsb2>

⁸² We terminated the exchange with ETSAM due to perpetual complaints about the program from our students.

building thesis. A guest teacher, usually a known architect from the region, teaches one section of Capstone:

2011-2012	Rick Joy, FAIA; Rick Joy Architects
2012-2013	Eddie Jones, AIA; Jones Studio
2013-2014	Wendell Burnette, FAIA; Wendell Burnette Architects
2014-2015	Jason Griffiths, RIBA; AA, ASU
2015-2016	Dan Hoffman, AIA, Studio MA

Studio-selection occurs the prior Spring; students may confer with their faculty member over the summer. In ARC 498 | Capstone Prep (3-CU), students are coached to understand what makes architectural practices significant, they research a line of work for which they have affinity, and they identify a lineage with promising career development (thus setting up the fulfillment of our Critical Practice claim.) They analyze site and program and complete conceptual design.

In ARC 452 | Capstone (6-CU) the projects are produced. All sections meet and are reviewed by all faculty four times over the semester, the third review being a pass/no pass review for the final public review.⁸³

Final Capstone work is evaluated by outside reviewers. The work is collected and published in a Capstone book.⁸⁴

M.Arch

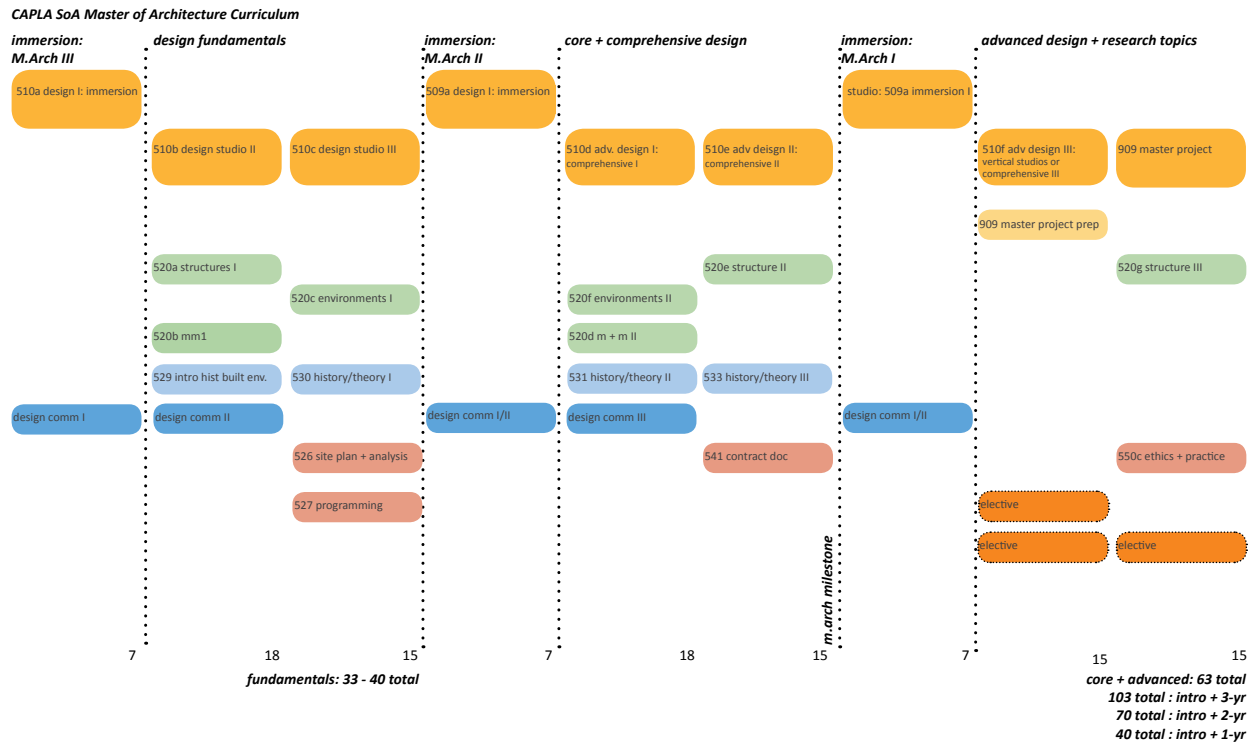
The M.Arch is available via one of three curricular tracks, according to the student's prior preparation. The 3.5-year course, M.Arch III, accommodates students with a non-design baccalaureate degree; the 2.5-year professional program, M.Arch II, accepts students with an undergraduate, studio-based, architecture degree. Students holding an accredited Bachelor of Architecture may receive advanced placement in this program and begin in the final year, M.Arch I. Each applicant's experience is individually assessed and a personal curriculum developed to insure success.⁸⁵ In our nomenclature:

- M.Arch III: pre-professional studies, for students with no design background;
- M.Arch II: professional studies, for students with a pre-professional design background; includes advanced placement for those with a professional baccalaureate degree.
- M.Arch I: Advanced stage or placement in M.Arch II.

⁸³ 452 Self-evaluations: <http://assessment.arizona.edu/arch/Architecture Undergraduate - capstone self eval>

⁸⁴ Capstone Books: <https://arizona.box.com/s/exvxwg695pw3z4ug6yq5up19eq3sahre>

⁸⁵ M.Arch Guidebook: <https://arizona.box.com/s/zkdk7nlrmdtmavmalfloystdr2yz9onh>



The M.Arch curriculum is divided into three phases: Fundamentals, Core+Comprehensive, and Advanced+Research; the last phase is separated by a Milestone.

Fundamentals phase

The M.Arch III year is devoted to basic design. Students are introduced to every subject area and skill group. The summer immersion program for M.Arch III students puts them immediately into a studio environment with a linked design communications course; with short deadlines and a compressed summer schedule, students are quickly indoctrinated into architecture culture.

In the first Fall semester, the immersion expands with courses in structures, materials and methods, a second design communications, and a history+theory introduction. The ARC 510b studio introduces them to the desert, but in a three project series takes them up the eco zones of Mount Lemmon, so they get an understanding of how different climates require different design responses.

By the end of year 1, they have also had devoted courses in programming, site analysis, building technologies—a complete tour of the architecture curriculum.

Core+Comprehensive phase

In the M.Arch II year we teach them how to make a building. Both studios, ARC 510d and 510e, are actually comprehensive studios, the former working from a smaller program and simple site, with largely passive systems, while the second works out a large systems-intense building—and produces it in BIM—with shared deliverables from 520e | Structures 2 and ARC 541 | Contract Documents. SEE: II.1.1 Student Performance Criteria | Realm C | C.2 Integrated Evaluations + C.3 Integrative Design | M.Arch—ARC 510e | Advanced Studio 2.

M.Arch Milestone

Effective for the class graduating in 2017 and later, the M.Arch Milestone is a mandatory review of progress toward degree and a graded component of ARC 510E; its first appearance will be Spring 2016. It assesses the skills and knowledge developed by the end of the 2nd Year is a gateway to M.Arch I.⁸⁶ It operates precisely like the B.Arch Milestone 2, except:

⁸⁶ M.Arch Milestone requirements: <https://arizona.box.com/s/0n1e125r1bczullhw14c3n7244kw14fa>

There are three potential outcomes from Milestone 2:

- Student passes into M.Arch I;
- Student passes into M.Arch I with structured options:
- >the requirement to take a skill-building section of ARC 510f; and/or
- >the requirement to take additional courses to strengthen identified Stream weaknesses; or
- Student returns to an earlier point in M.Arch II according to remediation needed, along with co-requisite courses; possible return to courses to strengthen identified Stream weaknesses.

Advanced+Research phase

In the final M.Arch I year students are asked to investigate their own emerging disciplinary interests, first with an options studio and then in a Master's Project.

Since the 2013 Visit, the M.Arch sequence was compressed to insert a new ARC 510f, an options studio that is co-convened with ARC 451b (SEE: II.1.1 Student Performance Criteria | methodology for assessing work | MILESTONES | B.Arch | *Application phase* | ARC 451a / ARC 451b | Applications Studios). This allows the M.Arch students an opportunity to explore their own interests in a studio while they are doing ARC 909 | Master's Project Prep.

In the Prep course, students select a site within a district provided by the professor and develop a program spawned by their research interests and events in the site area. As a result of this semester's work, the class as a whole assembles a research book that sets up the studio.⁸⁷

In ARC 909 | Master's Project, projects are developed that manifest the aspirations identified in Prep. With shared deliverables and teaching from ARC 520g | building technology 7 – structures 3, Master's Projects should be comprehensive demonstrations of the complete M.Arch education.

II.2.1 Institutional Accreditation

The University is regionally accredited by the North Central Association of Colleges and Schools. The last accreditation was 2011.⁸⁸

II.2.2 Professional Degrees & Curriculum

Bachelor of Architecture (B.Arch)

prerequisite degrees: None.

preparatory education: See II.1.1 Student Performance Criteria | preparatory and pre-professional education | Bachelor of Architecture.

total credit units: 174 CU; SEE: curriculum table.⁸⁹

minors or concentrations students may elect to pursue:

- The B.Arch. does not require a minor; Architecture students may elect to take one. Of the 378 students currently enrolled in Architecture, those electing additional concentrations:

Second Degrees:

Business Management	1
French	2
Spanish	3

Minors:

Africana Studies	2
Art History	1
Business Admin	4
Chinese Studies	1
German Studies	1
Japanese	1
Mathematics	1
Music	1

⁸⁷ Master's Prep research books: <https://arizona.box.com/s/va5sq3p836kofyt3fpw1r4pjsk8gywzz>

⁸⁸ Institutional Accreditation: <https://arizona.box.com/s/gevd7q5dbvhuioynsrbkf0lf0lyowid>

⁸⁹ B.Arch Curriculum: <https://arizona.box.com/s/nwvtjm0iutifspq1aa2jbelqgseqw8x>

Spanish 8
Studio Art 2

- accelerated master's program (AMP): B.Arch to Master of Science in Architecture, Design and Energy Conservation. Requirements of the AMP:
Min 75 CU at application;
Min 90 CU at entry;
Min GPA 3.3;
Min 12 undergraduate CU in major at UA main campus;
Completion of general education requirements;
Submission and payment of graduate application;
Expected to complete undergraduate degree in four years;
Up to 12 units of graduate coursework, which apply toward both the Bachelor's and Master's degrees;
Must complete at least 12 graduate credits while in graduate status;
Seniors may enroll in 500 level courses;
Graduate coursework at 3.0 or higher; and
Students **ineligible** for assistantships until completion of Bachelor's degree.

off-campus programs: SEE: Section 4. Supplemental Material | offsite program questionnaire below.

other degree programs offered in the same administrative unit:

- Master of Architecture
- Master of Science in Architecture

MOOCs: None.

progress in change of title of non-accredited, post-professional degree: SEE: II.2.2 Professional Degrees & Curriculum | Master of Science in Architecture, below.

Master of Architecture (M.Arch)

prerequisite degrees: SEE: II.3 Evaluation of Preparatory Education | Error! Not a valid link., below.

preparatory education: SEE: II.3 Evaluation of Preparatory Education | Error! Not a valid link., below.

total credit units: 102 CU; SEE: curriculum table.⁹⁰

minors or concentrations students may elect to pursue:

- dual degree: M.Arch + MS.Arch—Design + Energy Conservation⁹¹
- accelerated master's program (AMP): Sustainable Built Environment to Master of Architecture (SEE: II.2.2 Professional Degrees & Curriculum | **Bachelor of Architecture (B.Arch) for AMP** requirements).

off-campus programs: SEE: Section 4. Supplemental Material | offsite program questionnaire below.

other degree programs offered in the same administrative unit:

- Bachelor of Architecture
- Master of Science in Architecture

MOOCs: None.

progress in change of title of non-accredited, post-professional degree: SEE: II.2.2 Professional Degrees & Curriculum | Master of Science in Architecture, below.

Master of Science in Architecture (MS.Arch)

prerequisite degrees: professional degree in architecture or engineering, NAAB accredited if applicant is from North America; min GPA of 3.0 on a 4-point scale

additional requirements for MS.Arch Independent Option: a clearly-defined research proposal.

preparatory education: SEE: II.3 Evaluation of Preparatory Education | Master of Science in Architecture (MS.Arch), below.

⁹⁰ M.Arch Curriculum: <https://arizona.box.com/s/knrcqtgqvgxhf57yrjx5a3bqi0rk4x1c>

⁹¹ Dual degree requirements for MArch+MS Arch D+EC: <https://arizona.box.com/s/16w6695tcu4tme0krnbs5vk27png6nt1>

total credit units: 35-38 CU, depending on track:

- MS.Arch-Design+Energy Conservation⁹²
- MS.Arch-Independent⁹³
- MS.Arch-Heritage Conservation⁹⁴

minors or concentrations students may elect to pursue:

Graduate Certificate: Heritage Conservation:⁹⁵ Educates students in the preservation of the built environment as part of a comprehensive ethic of environmental, cultural, and economic sustainability. The program is: Interdisciplinary (teaching holistic problem-solving within an integrated environment of natural and cultural resources including the disciplines 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).

off-campus programs: SEE: Section 4. Supplemental Material | offsite program questionnaire below.

other degree programs offered in the same administrative unit:

- Bachelor of Architecture
- Master of Architecture

MOOCs: None.

progress in change of title of non-accredited, post-professional degree: The School received approval from NAAB to establish a new accredited Master of Architecture (M.Arch) in 2008 with the proviso that we convert our existing unaccredited M.Arch to a post-professional Master of Science in Architecture. We did that, with the last cohort graduating in 2010-2011. The MS.Arch was re-envisioned as a research degree.

II.3 Evaluation of Preparatory Education

Bachelor of Architecture

The B.Arch program's acceptance requirements vary by type of applicant and point of admission.

FOUNDATION (1ST YEAR)

Admission Materials, Freshman/Transfer/International Applicants

Application is via the UA Admissions on-line portal; required documentation: transcripts from high schools and institutes of higher education attended.

domestic applicants

Applicants under age 22 must complete the Arizona Board of Regents' coursework competencies (waived for those over 22) or have satisfactory ACT/SAT scores;⁹⁶ GPA: 2.0 (4-point scale).

transfer applicants

Applicants under age 22 must complete the Arizona Board of Regents' coursework competencies (waived for those over 22).

For those with 24+ transferable college semester-credits: min. 2.0 GPA;

For those with 12-23 credits completed or in progress at time of application: min. 2.0 GPA of 2.0 and min. 2.5 cumulative un-weighted high school GPA.

High School Graduates enrolled at an accredited higher education institution with min. 12 transferable college credits will be considered a transfer student for admission purposes.

additional international applicant requirements

English Language proficiency: min. TOEFL 70 overall, or min 6.0 IELTS; min. 530 SAT Critical Reading, or min 21 ACT English, or min. 53 Pearson Test of English (PTE), or min. 5 IB English A, or completion of a degree from an English Speaking Institution.

⁹² MS.Arch Design+Energy Conservation Curriculum <https://arizona.box.com/s/w9jy2fnv3oy2jo0quzm34bbnkc0muglx>

⁹³ MS.Arch Independent Curriculum: <https://arizona.box.com/s/cnt2l2ub1z9ptiwx1u5hun7lzhvi57db>

⁹⁴ MS.Arch Heritage Conservation Curriculum <https://arizona.box.com/s/857pv4r5n5gmuunfxusug4k2baxridag>

⁹⁵ Certificate in Heritage Conservation Curriculum: <https://arizona.box.com/s/spr9qlz8hsueukp9hss9vynznafcosh7>

⁹⁶ B.Arch Entrance Requirements + Guidelines: <http://capla.arizona.edu/bachelor-architecture-admission-requirements>

advance placement

Portfolios are reviewed by the B.Arch Admissions Committee, which is comprised of the Undergraduate Advisor, Foundation Coordinator, and one member of the Foundation Faculty. Credit for non-studio courses is referred to the appropriate Stream Coordinator for assessment; recommendation is advanced to the Committee Chair who makes the final determination.

PROFESSIONAL PHASE (2ND-5TH YEARS)

admission: from Foundation

SEE: II.1.1 Student Performance Criteria | methodology for assessing work | MILESTONES | B.Arch | Milestone 1

admission: transfer students

Applicants from NAAB-accredited programs: electronic portfolio: design work demonstrating competence in fundamental design and graphic skills; College Algebra and Trigonometry or Calculus; two semesters of English; Physics with lab.

placement

Portfolios are reviewed by the B.Arch Admissions Committee, which is comprised of the Undergraduate Advisor, Foundation Coordinator, and one member of the Foundation Faculty. Credit for non-studio courses is referred to the appropriate Stream Coordinator for assessment; recommendation is advanced to the Committee Chair who makes the final determination.

advancement

Min. 2.0 GPA to be in good standing; C or better in studios to advance.

probation

Students who have been identified as probationary must meet with the Undergraduate Academic Advisor and set up a Probationary Plan of Action.

Master of Architecture

The M.Arch program's acceptance requirements vary by point of admission.

M.ARCH III ELIGIBILITY

4-year bachelor degree in a field other than architecture, including degree certification;
GPA: 3.0 (4-point scale); GRE: not required; and
required credits: college Algebra, Trigonometry, and Physics with lab.

M.ARCH II ELIGIBILITY

4-year bachelor degree, major in architecture, including degree certification;
GPA: 3.0 (4-point scale); GRE: not required; and
required credits (semester system):

- 4 design studios = 24 credits
- 2 courses in design fundamentals = 6 credits
- 2 building technology courses = 6 credits
- 2 structures courses = 6 credits
- 2 environmental technology courses = 6 credits
- college Algebra, Trigonometry or Calculus, and Physics with lab.

Portfolio: design work that shows competence in fundamental design and graphic skills.

M.ARCH II ADVANCE PLACEMENT (M.ARCH I)

5-year accredited bachelor degree (professional) in architecture, including degree certification;
GPA: 3.0 (4-point scale); GRE: not required; and
required credits (semester system):

- 8 design studios = 48 credits
- 2 courses in design fundamentals = 12 credits
- 4 building technology courses = 6 credits
- 3 structures courses = 9 credits
- 2 professional practice courses = 6 credits
- 2 architecture history courses = 6 credits
- college Algebra, Trigonometry or Calculus, and Physics with lab.

Portfolio: design work that shows competence in fundamental design and graphic skills.

ADMISSION MATERIALS, ALL APPLICANTS

application for admission via UA Graduate College on-line portal

supporting documentation: statement of intent or purpose, curriculum vitae or resume, official transcripts from all institutes of higher education attended, electronic portfolio, three or more letters of recommendation

ADDITIONAL INTERNATIONAL APPLICANT REQUIREMENTS

English Language proficiency (TOEFL iBT score of 79 overall, 26 on speaking section, or IELTS (7.0), or completion of a degree from an English Speaking Institution)

financial guarantee

PLACEMENT

Applicants are assessed and placed by the M.Arch Admissions Committee, which is comprised of:

- Program Chair
- Graduate Advisor
- two faculty who teach regularly in the M.Arch studios.

process

1. Applications are screened by the M.Arch Graduate Advisor.
2. Portfolios are reviewed by the Admissions Committee for remedial needs and advanced placement.
3. When students request credit for coursework previously taken, their application is forwarded to the appropriate Stream Coordinator for review or referral; recommendation is advanced to the Program Chair who makes the final determination.
4. The Graduate Advisor keeps detailed records of the review, including documentation submitted by the applicant.

remedial work

When a portfolio suggests a weakness in basic design, graphic skill, or fundamental knowledge, the student is required to pass one of the summer workshops or immersion studios.

advanced placement

In order to receive credit from non-accredited preparatory or pre-professional programs where Student Performance Criteria are claimed, students must comply with:

Advanced Placement Policy

Students are asked to submit applications for advanced placement before starting the program, but no later than the end of the first semester in residence. Supporting documentation must be submitted with the original application and include transcripts, course syllabus, and student deliverables. Applications are reviewed based upon the performance criteria for the course by the Instructor of Record, who then makes a recommendation to approve or deny. The Program Chair makes the final decision. Decisions may be appealed to the Director.

SATISFACTORY ACADEMIC PROGRESS POLICY

Students must maintain a minimum 3.0 grade point average to be in good standing and are expected to submit administrative paperwork in a timely manner. Students are encouraged to meet with the Graduate Coordinator each semester or before registering for the subsequent semester.

Probation Policy

Students who have been identified as probationary, or at risk of academic probation, must meet with the Program Chair and Graduate Coordinator to set up a Probationary Plan of Action intended to closely monitor student progress until beyond risk of academic disqualification.

Master of Science in Architecture (MS.Arch)

M.S.ARCH ELIGIBILITY

5-year Professional Degree; GPA: 3.0 (4-point scale); GRE: not required.

ADMISSION MATERIALS, ALL APPLICANTS

application for admission via UA Graduate College on-line portal

supporting documentation: statement of intent or purpose; curriculum vitae or resume; official transcripts from all institutes of higher education attended; electronic portfolio; three or more letters of recommendation

ADDITIONAL INTERNATIONAL APPLICANT REQUIREMENTS

English Language proficiency (TOEFL iBT score of 79 overall, 26 on speaking section, or IELTS (7.0), or completion of a degree from an English Speaking Institution); financial guarantee

PLACEMENT

Applicants are assessed and placed by the MS.Arch Admissions Committee, which is comprised of:

- Program Chair
- Graduate Advisor
- Graduate Students

process

1. Applications are screened by the MS.Arch Advisor.
2. Portfolios are reviewed by the Admissions Committee for remedial needs and advanced placement.
3. When students request credit for coursework previously taken, their application is forwarded to the appropriate Stream Coordinator for review or referral; recommendation is advanced to the Program Chair who makes the final determination.
4. The Graduate Advisor keeps detailed records of the review, including documentation submitted by the applicant.

advanced placement

In order to receive credit from non-accredited preparatory or pre-professional programs where Student Performance Criteria are claimed, students must comply with:

Advanced Placement Policy

Students are asked to submit applications for advanced placement before starting the program, but no later than the end of the first semester in residence. Supporting documentation must be submitted with the original application and include transcripts, course syllabus, and student deliverables. Applications are reviewed based upon the performance criteria for the course by the Instructor of Record, who then makes a recommendation to approve or deny. The Program Chair makes the final decision. Decisions may be appealed to the Director.

SATISFACTORY ACADEMIC PROGRESS POLICY

Students must maintain a minimum 3.0 grade point average to be in good standing and are expected to submit administrative paperwork in a timely manner. Students are encouraged to meet with the Graduate Coordinator each semester or before registering for the subsequent semester.

Probation Policy

Students who have been identified as probationary, or at risk of academic probation, must meet with the Program Chair and Graduate Coordinator to set up a Probationary Plan of Action intended to closely monitor student progress until beyond risk of academic disqualification.

II.4 Public Information

STATEMENT ON NAAB-ACCREDITED DEGREES

<http://capla.arizona.edu/accreditation-status-and-professional-registration>

ACCESS TO NAAB CONDITIONS AND PROCEDURES

<http://capla.arizona.edu/accreditation-status-and-professional-registration>

ACCESS TO CAREER DEVELOPMENT INFORMATION

<http://capla.arizona.edu/accreditation-status-and-professional-registration>

PUBLIC ACCESS TO APRS AND VTRS

<http://capla.arizona.edu/accreditation-status-and-professional-registration>

ARE PASS RATES

<http://capla.arizona.edu/accreditation-status-and-professional-registration>

III.1.1 Annual Statistical Reports

Per the “2014 Conditions for Accreditation,” the only documentation required here is the certification from the UA official responsible for preparing and submitting statistical data.⁹⁷

III.1.2 Interim Progress Reports

Per the “2014 Conditions for Accreditation,” no School reporting here.

Section 4. Supplemental Material

course descriptions

School of Architecture course descriptions may be found at: <http://capla.arizona.edu/courses>

studio culture

Policies that impact students are at: <http://capla.arizona.edu/student-forms-and-procedures>.

The SoA Policy on Studio Culture (adopted by students and faculty) is at: <http://capla.arizona.edu/soa-policy-studio-culture>

The Director’s Policy on Studio Culture, an administrative overlay of the SoA Policy, is at: <http://capla.arizona.edu/soa-directors-policy-studio-culture>

self-assessment

SEE: I.1.6.A Program Self-Assessment, above.

The School posts its curricular self-assessment activities and results to the UA Office of Instruction and Assessment (OIA) website.⁹⁸

academic integrity

SEE: I.1.2 Learning Culture | academic integrity above.

Policies on academic integrity (e.g., cheating and plagiarism) may be found at:

<http://capla.arizona.edu/capla.arizona.edu/academicintegrity/add/page>

information resources

SEE: I.2.4 Information Resources above.

equal opportunity

SEE: I.1.3 Social Equity | the University above.

The institution’s policies and procedures relative to EEO/AA is at: <http://hr.arizona.edu/policy/appointed-personnel/2.01>

human resource development opportunities

SEE: I.2.1 Human Resources and Human Resource Development | continuing development and resources available to the faculty, above.

⁹⁷ Certification of data: <https://arizona.box.com/s/50kwcxk4lvs12j4ua8dm0uvsxtc803ui>

⁹⁸ OIA B.Arch page: <http://assessment.arizona.edu/arch/Architecture%20Undergraduate>

OIA M.Arch page: <http://assessment.arizona.edu/arch/Architecture%20Graduate>

The UA policy on sabbaticals is at: <http://www.hr.arizona.edu/sabbatical> leave AP

promotion and tenure

Promotion and Tenure is a rigorous multi-tiered review conforming to University regulations (specified in the University Handbook for Appointed Personnel—section 3.3⁹⁹) as well as College Bylaws (Bylaw 4).¹⁰⁰

TENURE

Tenure-track faculty members participate in the DOE+APR process with the additional scrutiny of P+T review.

YEAR 1: Assigned Mentor; given regular workload assignment, with a Service assignment that will allow demonstration of collegiality and ability to balance individual vs. School needs; expected to define a Research trajectory.

YEAR 2: Given workload assignment with higher research load and some teaching flexibility that will support research development; expected to begin peer-reviewed publication.

YEAR 3: Given workload assignment with 3 CU course release, high Research load, and teaching flexibility that will support research development; expected to be well-started on a record of peer-reviewed publication and awards. Submits tenure dossier I, which is reviewed autonomously and in parallel by the College FSC and Director; no external review. Recommendations assessed and candidate reappointed or given one-year notice of dismissal by Dean.

YEAR 4: Given workload assignment with high Research load; expected to have a record of peer-reviewed publication and awards with focus in research trajectory in premiere venues.

YEAR 5: Given workload assignment with 3 CU course release, high research load; expected to be completing outstanding work toward record of peer-reviewed publication and awards. Submits external tenure dossier at end of year, which is distributed to 3-8 outside reviewers (up to six recommended by candidate; majority chosen by Director).

YEAR 6: Given regular workload assignment; expected to finish tenure-dependent Research and continue record of peer-reviewed publication and awards. Submits internal tenure dossier at beginning of Fall. Based on dossier and recommendations by outside reviewers, candidate is reviewed autonomously and in parallel by the College FSC and Director. Recommendations are assessed by the Dean and candidate is either recommended for tenure to the Provost, or given notice of one-year dismissal.

Upon award of tenure and promotion to Associate Professor, faculty are given a salary increase. Prior to 2015, the CAPLA standard increase was \$3,000; in 2015 the School increased its award to \$5,000.

offsite program questionnaire

The School utilizes two off-campus facilities:

UAD

The University of Arizona, Downtown program qualifies under NAAB's definition of an "Additional Site as Part of a Single Accredited Program."¹⁰¹

Appendix 4. Branch Campuses Questionnaire

Name of Institution:	University of Arizona
Title of Degree:	Bachelor of Architecture; Master of Architecture
Name of Program Administrator:	Robert Miller, Professor and Director SoA
Name of Person Completing this Form:	Robert Miller, Professor and Director SoA
Location of Branch Campus, Additional Site, Teaching Site, Online learning, or Study Abroad Program:	University of Arizona, Downtown
Distance from Main/Flagship Campus:	1.7 miles

⁹⁹ <http://hr.arizona.edu/policy/appointed-personnel/3.3>

¹⁰⁰ <http://capla.arizona.edu/capla-faculty-staff-and-student-handbook> - Bylaw 4

¹⁰¹ NAAB Procedures for Accreditation, 2015 Edition (Washington, DC: National Architectural Accrediting Board, Inc, 2015), p. 74.

Number of Courses from Curriculum Leading to a NAAB-Accredited Degree Offered at this site	2
(List all courses: number, title, credits offered)	
ARC 451a	Application Studio: urban design--multi-disciplinary with Landscape Architecture and Planning
ARC 451b / 510f	Application Studio: urban design (topic varies)
Is attendance at the branch campus, additional site, teaching site, study abroad or online program required for completion of the NAAB-accredited degree program?	No.
Who has administrative responsibility for the program at the branch campus?	facility: University of Arizona, Pima County curricula: participating colleges
To whom does this individual report?	The UA operates the facility; department heads oversee their respective curricular matters.
Where are financial decisions made?	The UA leases the space from Pima County and coordinates maintenance and operational issues. Departments make faculty appointments; are responsible for their respective curricula; and recruit students. Architecture: operates as if this were an on-campus facility.
Who has responsibility for hiring faculty?	Responsibility for hiring Architecture Faculty: Robert Miller
Who has responsibility for rank, tenure, and promotion of faculty at the branch campus?	Architecture Faculty: handled in main campus procedures .
Does the branch campus have its own curriculum committee?	No.
Does the branch campus have its own admissions committee?	No.
Does the branch campus have its own grievance committee?	No.
Does the branch campus have its own resources for faculty research and scholarship?	No.
Does the branch campus have its own AIAS or NOMAS chapter?	No.
Does the branch campus maintain its own membership in ACSA?	No.

Clarification to the Questionnaire:

i. Curriculum: The studios offered at the UAD are optional sections to those offered on campus. Students make preferences at the beginning of the semester and are sorted into sections based on their preferences balanced by the need to balance numbers and abilities in each section.

The topic of UAD studios is urban design, but the nature of the projects vary from urban research to service projects for actual clients.

The Fall ARC 451b / ARC 510f is architecture only; the Spring ARC 451b is a multi-disciplinary group with Landscape Architecture and Planning students and faculty.

ii. Geographic location: SEE: I.2.2 Physical Resources | University of Arizona, Downtown (UAD) above.

iii. Administrative structure: Architecture programs at the UAD are run as if they were on campus.

iv. Budgetary and hiring authority and responsibilities: Architecture programs at the UAD are run as if they were on campus.

v. Faculty access to committee assignments, research and scholarship opportunities and participation in professional societies: Various faculty teach at the UAD, usually with other teaching assignments on campus. Architecture programs at the UAD are run as if they were on campus.

vi. Student access to services and equipment, and participation in governance: Architecture programs at the UAD are run as if they were on campus.

vii. Physical resources: SEE: I.2.2 Physical Resources | University of Arizona, Downtown (UAD) above.

ORVIETO

The Orvieto program is a UA facility¹⁰² that was recently used for summer study abroad and more recently for an annual Fall program—SEE: Section 2. Progress since the Previous Visits | 2004 Criterion 1.5 Architectural Education and Society above. It qualifies under NAAB's definition of "Teaching Site and Study-Abroad as Part of a Single Accredited Program."¹⁰³

Appendix 4. Branch Campuses Questionnaire

Name of Institution:	University of Arizona
Title of Degree:	Bachelor of Architecture; Master of Architecture
Name of Program Administrator:	Robert Miller, Professor and Director SoA
Name of Person Completing this Form:	Robert Miller, Professor and Director SoA
Location of Branch Campus, Additional Site, Teaching Site, Online learning, or Study Abroad Program:	Orvieto, Italy UA: Arizona in Italy, Study Abroad The Study Center is located in the XVI c. Simoncelli palace in Piazza del Popolo, newly restored. Includes several fully furnished classrooms for 20 to 35 students, and a computer lab with high speed internet. Courses offered from many disciplines, including: Classics, Italian, Art, Art History, Communication, Psychology, Journalism, English, and Architecture.
Distance from Main/Flagship Campus:	6,124 mi
Number of Courses from Curriculum Leading to a NAAB-Accredited Degree Offered at this site	2
(List all courses: number, title, credits offered)	
ARC 451B / 510F	Application Studio: Orvieto-urban fabric
ARC 497B / 597B	Special Projects in Architecture: Travel Drawings and Assemblage
Is attendance at the branch campus, additional site, teaching site, study abroad or online program required for completion of the NAAB-accredited degree program?	No.
Who has administrative responsibility for the program at the branch campus?	facility: The University of Arizona Office of Global Initiatives curricula: participating departments
To whom does this individual report?	The UA operates the facility; department heads oversee their respective curricular matters.

¹⁰² <https://global.arizona.edu/study-abroad/program/arizona-italy>

¹⁰³ Ibid.

Where are financial decisions made?	The Office of Global Initiatives collects student fees and tuition; pays faculty a base salary, travel, and a living expense stipend; supports travel; and operates the facility. Departments make faculty appointments; may add to the base salary; are responsible for their respective curricula; and recruit students.
Who has responsibility for hiring faculty?	Responsibility for hiring Architecture Faculty: Robert Miller
Who has responsibility for rank, tenure, and promotion of faculty at the branch campus?	Architecture Faculty: handled in main campus prodedures.
Does the branch campus have its own curriculum committee?	No.
Does the branch campus have its own admissions committee?	No.
Does the branch campus have its own grievance committee?	No.
Does the branch campus have its own resources for faculty research and scholarship?	No.
Does the branch campus have its own AIAS or NOMAS chapter?	No.
Does the branch campus maintain its own membership in ACSA?	No.

Clarification to the Questionnaire:

i. Curriculum: Summer courses offered in Orvieto are electives; starting Fall 2015, students may elect to take ARC 451b / ARC 510f in Orvieto, in which case the studio subject will be determined by the professor in residence. ARC 497B / 597B is a 3-CU elective intended to engage students in field studies. Students also take courses in Orvieto offered by other UA departments.

ii. Geographic location: Orvieto, Italy.

iii. Administrative structure: The facility is operated by the UA Office of Global Initiatives; courses offered there are under the jurisdiction of the participating departments: Classics, Italian, Art, Art History, Communication, Psychology, Journalism, English, and Architecture (not all present all the time).

iv. Budgetary and hiring authority and responsibilities: The Office of Global Initiatives collects student fees and tuition; pays faculty a base salary, travel, and a living expense stipend; supports travel; and operates the facility. Departments make faculty appointments; may add to the base salary; are responsible for their respective curricula; and recruit students.

v. Faculty access to committee assignments, research and scholarship opportunities and participation in professional societies: Faculty are sent on a one-time appointment. There are no permanent faculty in Orvieto.

vi. Student access to services and equipment, and participation in governance: Students have a level of technology and space similar to what is provided on campus. They attend for one term at a time; there is no special provision for governance, though they are represented and may participate virtually as if they were on campus.

vii. Physical resources: The Study Center is located in the XVI c. Simoncelli palace in Piazza del Popolo, newly restored with a section regarding the Museo della Ceramica. There are several fully furnished classrooms, each with space for 20 to 35 students, and a computer lab with high speed internet access. The three story building is across from the medieval Palazzo del Popolo, now a meeting center.¹⁰⁴

Students live in [fully furnished apartments](#), all located in the historical district in Orvieto and within walking distance from the school. Generally, an apartment with two bedrooms, a fully equipped kitchen and living

¹⁰⁴ <https://global.arizona.edu/study-abroad/program/arizona-italy#sthash.2k2u4Dum.dpuf>

room, is shared by four students (no co-ed housing). Housing costs are included in the program fee, and cover all expenses (water, gas, electricity bills), sheets and towels (changed once a week), and a weekly cleaning. There is also a homestay option for students interested in living with an Italian family.

addendum 1: the B.Arch-M.Arch relationship

The relationship between the two accredited degrees is evolving. This section will trace their relationship across the major criteria of accreditation.

history and culture

HISTORY, B.ARCH VS. M.ARCH

The early history of the College is synonymous with the history of the B.Arch degree, from 1958 into the 1990s when other disciplines became significant units in CAPLA (pages 6-7). As described under the history and mission of the **School of Architecture**, the B.Arch degree was a classic post-WWII professional practice degree that largely skipped the national trends initiated by the Princeton Report, which prompted a move away from professional, and toward a more liberal, education. Director Malo led the B.Arch into a more principled, experimental, and theoretical curriculum, but the DNA of the degree remained rooted in professional practice, even if the adjective *critical* replaced *professional* as a qualifier.

Opening in 2010, the accredited M.Arch degree emerged as a step-child of the B.Arch. The M.Arch was modeled on the B.Arch and it was assumed that many of the graduate offerings would simply be co-convened with undergraduate courses. The School did not receive new funding to launch the M.Arch and, opening just when the recession was firmly under way with a decade of consistent budget cuts eroding its resource base, the assumption of scaffolding the two degrees was, frankly, the only way it could have been launched. Coursework and studio sequences in the M.Arch curriculum borrowed heavily from B.Arch traditions.

We learned during the first year of the M.Arch, however, that many of our assumptions about piggy-backing the two accredited degrees were misguided. The socio-economic backgrounds of the M.Arch arrivals varied tremendously from the B.Arch population. While we expected the graduate students to be wiser than their undergraduate counterparts—and they were—they were not necessarily more mature, either as individuals or as a class. There was a lot of friction within the M.Arch class. They came with a sense of entitlement about what was owing to them as graduate students, which had not been expected of an older group. They often resented being put into classes with undergraduates, a situation made worse by our requirements for more and better work from graduate students. We misjudged the pace of their learning. Moreover, staff changes and the recession reduced the size of the entering class after 2010-2011, allowing us to offer only one M.Arch studio and forcing students to be in constant contact for 3.5 years—which nurtured additional conflict.

As the inaugural class moved through the curriculum, we made constant adjustments and invited student suggestions for improvement. We dismantled co-convened courses or, when we could not, added additional graduate seminars so the M.Arch students would receive a more personal and intimate level of engagement. We added a third Design Communications course to improve digital learning and take it to a more sophisticated level.

An important factor in the early character of the M.Arch classes was the pending status of accreditation. We suspect that the pool of students willing to enroll for a degree in candidacy is different from those who will consider an accredited program. Our M.Arch population is still so small that it is difficult to find trends, but we assume an ability to attract more accomplished students as the program matures.

Associate Professor Domin, a long-time champion offering an accredited M.Arch degree, served as its first Program Chair and led it from planning through accreditation. Domin's determination and commitment to the original vision held the loyalty of the early students, in spite of launch problems, and kept the program advancing.

After initial accreditation, Associate Professor Beth Weinstein was appointed Program Chair with a mandate to guide the M.Arch to an identity, character, and culture that is independent of the B.Arch. Starting in 2014, she pushed developmental benchmarks earlier in sequence; added developmental iterations to comprehensive studios; and pushed the new Realm C requirements into the Spring of M.Arch II, opening the potential for significant changes in the M.Arch I year.

The Fall studio of M.Arch I, ARC 510f | ADVANCED DESIGN STUDIO 3, was now (in a reversal of previous trends) co-convened with ARC 451b. Not only did this finally allow M.Arch students to have a choice in selecting a studio, it allowed them to self-direct their development into one of several options: urban design, design/build, research, or study abroad. It finally allowed them a studio that was not heavily constrained by SPC. It put them in a studio culture based on collaboration and applied learning. It broke up the M.Arch class—a social relief valve—and gave them that chance to work with new colleagues.

To make this opening in Fall of M.Arch I, fundamentals had to be compressed in the first two years of the degree, with individual accomplishment proven by the end of M.Arch II. The as yet untested benchmark for this certification is the new M.Arch Milestone, which will be delivered for the first time at the completion of the M.Arch II Spring 2016. Modelled after the successful B.Arch Milestone, this competency check (which is outside course grading) should enlist students in the purposeful development of skills and knowledge, certifying that they are prepared for the exploration and collaboration of ARC 510f.

The remaining significant move in Weinstein's transformation of the M.Arch culture will be a reexamination of the Master's Project, which is still being run much like the B.Arch's Capstone. We decided to get the M.Arch Milestone in place, observe the impact of a co-convened ARC 510f + ARC 451b, and get through this accreditation visit before deploying more revisions.

UNIVERSITY EXPECTATIONS, B.ARCH VS. M.ARCH

Although the UA is a Research I university, CAPLA is recognized as a college comprised of professional programs; the provost understands and supports the mission of professional education. Consequently, there are not particular pressures on M.Arch students to deliver different kinds of work than their undergraduate counterparts.

The decentralization of resources under RCM (see I.2.3 Financial Resources | Responsibility Centered Management (RCM)) has further mitigated the differences between graduate and undergraduate students. Because CAPLA, and not the Graduate College, now holds and awards the pool of Waivers, Graduate College Fellowships, and ERE, there is less input from central administration on graduate student matters.

RESPONSE SINCE PREVIOUS NAAB VISITS, B.ARCH VS. M.ARCH

The last NAAB visit for the B.Arch was in 2009; that for the M.Arch was 2013 when the degree received initial accreditation. Conditions at the School changed dramatically between 2009-2013.

Of the Concerns registered in the 2009 visit (page 23), only one was pedagogical; the rest were essentially problems sourced by low funding and appointments. Although we continued to experience budget cuts after 2009, our net income increased and is likely to continue in a positive trajectory as long as post-recession enrollments continue to grow (and assuming state cuts subside, which is not assured in Arizona, even with positive State cash-flow). In the 2010-2013 phase, we got control of the budget problem by increasing Differential Tuition and Program Fees and by shifting to a largely NTT faculty as TT faculty members retired or left the UA. The new Director also assumed a more detailed and aggressive financial management of the School, rather than relying heavily on the College's business manager.

Of the Concerns registered in the 2013 visit (page 26), all nine Conditions Not Met and one of the two Causes of Concern were pedagogical; the remaining Cause of Concern was again Financial Resources. This reflects our improved financial management and, frankly, the immature status of the M.Arch curriculum.

students and student organizations

STUDENT CHARACTERISTICS, B.ARCH VS. M.ARCH

The two accredited degrees cater to different markets and attract populations with different demographics. The recession has not only impacted the number of students enrolling in architecture (see **enrollment fluctuations**, page 43), it has changed their characteristics, at least temporarily.

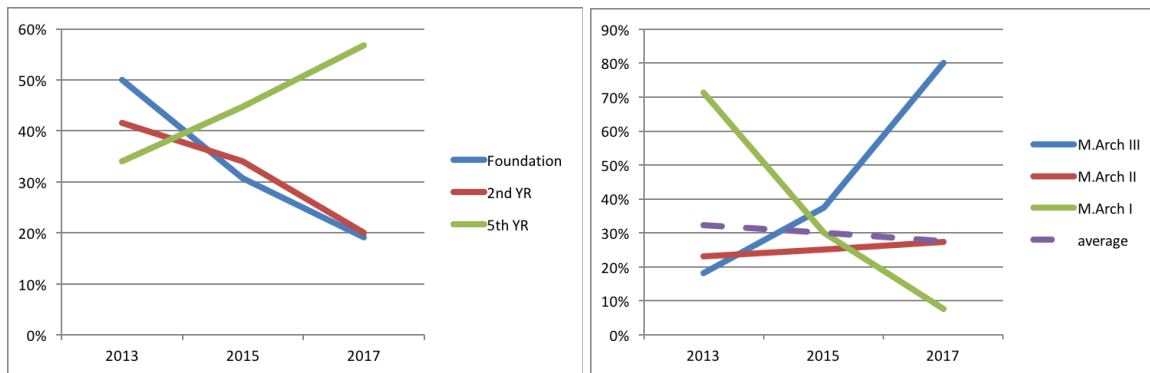


Figure 1: % FEMALE STUDENTS, B.Arch vs. M.Arch

The post-recession student bodies are trending male. Although the B.Arch has had gender balance in the student body, as seen by the 5th Year class, there is a drop in females applying to architecture after the recession. The M.Arch classes are so small that trends may not be meaningful; overall, the M.Arch program is 70% male and trending male.

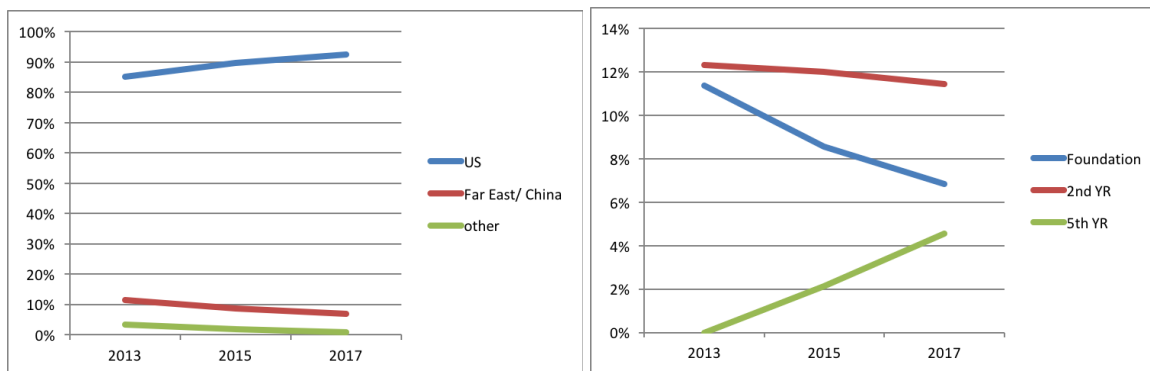


Figure 2: B.Arch NATIONALITY, B.Arch % students from China/Far East by year

The post-recession B.Arch student body is trending toward US citizenship, with the only significant foreign population coming from the Far East and China. We have had significant issues with language and ethics in groups from the Far East; students from those nationalities struggle during the first years but, if they make it into the upper levels, they do well.

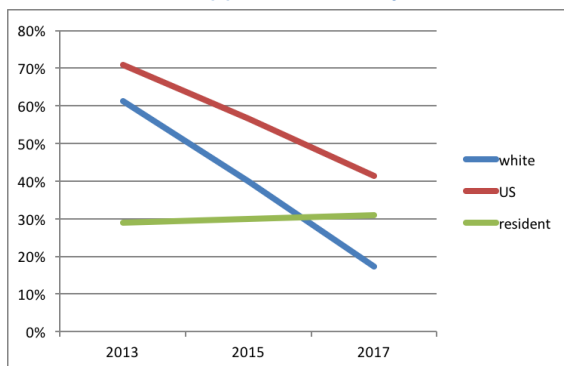


Figure 3: M.Arch NATIONALITY

By contrast, post-recession M.Arch students are increasingly non-white and of foreign nationality. This has dramatically changed the character of the M.Arch culture.

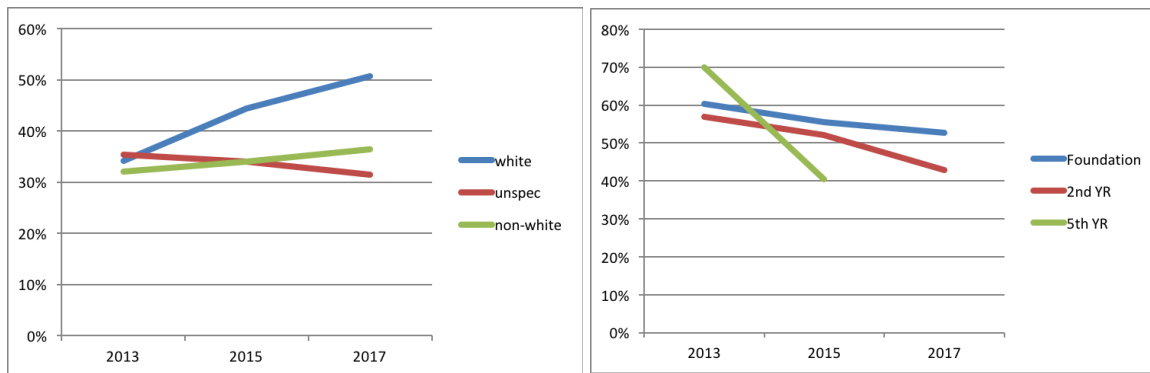


Figure 4: B.Arch RACE; B.Arch RESIDENCY

Although the B.Arch population is increasingly white in the post-recession period, it is increasingly non-resident (US citizens coming from outside Arizona).

STUDENT ORGANIZATIONS, B.ARCH VS. M.ARCH

There are four student organizations in the School: AIAS (including Freedom by Design); USGBC/SG; Tau Sigma Delta; and FUENTE (the Hispanic Architecture Club). Their activities are described above (see [extra-classroom learning](#), page 11). All student organizations welcome membership from graduate and undergraduate students, although M.Arch students have been less participatory than their undergraduate counterparts.

STUDENT AID AND SCHOLARSHIPS, B.ARCH VS. M.ARCH

Student funding is reported under [scholarships and grants](#) (page 40). Within the School, all students have access to Set-Aside Awards (need-based) and donor scholarships (merit and need-based), although the funding pools for each are separate. M.Arch and MS.Arch students also have access to RC-Waivers, Graduate College Fellowships, and Student Assistantships described there. In the past, graduate as well as undergraduate students were hired on wages; the new accounting systems make this undesirable for graduate students because it is less expensive for the School to hire them as Student Assistants. Because of their lack of architectural education and extremely heavy course load, M.Arch students are usually not qualified or available for Student Assistantships. B.Arch's have two funded competitive prizes (merit-based), one each in 3rd and 4th Years.

curricula

SIMILARITIES AND DIFFERENCES, B.ARCH VS. M.ARCH

The development of the M.Arch and its culture relative to the B.Arch is described above (page 72).

The curricula of the two accredited degrees overlap only at the following points:

STUDIO: ARC 451b and ARC 510f are a completely integrated vertical studio.

COURSES: The following are co-convened for lectures, with M.Arch students having a separate additional seminar (that is also joined by undergraduate honors students, if any):

History+Theory Stream

ARC 231 + ARC 530 | HISTORY 1: ancient

ARC 232 + 531 | HISTORY 2: Renaissance-Mod

ARC 332 + ARC 533 | HISTORY 3: Modern/Contemporary

ARC 471s (required) + ARC 571s (elective) | HISTORY 4: theory

Technology Stream

ARC 421 + ARC 520f | BT6: ECS 2 (complex systems)

ARC 223 + ARC 520c | BT3: ECS 1 (fundamentals)

regularly offered electives

ARC 461d + ARC 561d | Computer Energy Analysis
ARC 461e + ARC 561e | Sustainability + LEED Initiative
ARC 461p + ARC 561p | Environmental Science Lab
ARC 461q + ARC 561q | Special Topics in Arch Research
ARC 461r + ARC 561r | Environmental Technology Systems
ARC 471B + ARC 571B | Latin Practice Traditions
ARC 471f + ARC 571f | Introduction to Heritage Conservation
ARC 471n + ARC 571n | Urbanism Sonora
ARC 497B + ARC 597B | International Expositions
ARC 497u + ARC 597u | Geometry – Material – Ergonomics

CURRICULAR ASSESSMENT, B.ARCH VS. M.ARCH

All SoA curricula are governed by the School Curriculum Committee (see **Curriculum Committee**, page 22).

Both accredited curricula have independent Curricular Walk-Throughs every semester (**Curricular Walk-Throughs**, page 21) as well as independent External Review every semester which are reported to the Office of Instruction and Assessment website (**External Review**, page 22).

budget

The School keeps one budget and does not make separate allocations by degree, except that Differential Tuition and Program Fee receipts are expended explicitly on their respective populations, if such a distinction is possible.

space and resources

Space and other resources are shared across the School and not allocated by degree. The exception to this rule is space for studios, which are seldom moved and, by tradition, allocate increasingly better space to the B.Arch studios as they progress. M.Arch studios are typically located on the third floor of CAPLA East so that students are in proximity to their graduate peers in Planning and Landscape Architecture.

faculty

LEADERSHIP, B.ARCH VS. M.ARCH

Leadership of the two accredited degrees is described under **faculty leadership + organization**, page 31.

FACULTY ASSIGNMENTS, B.ARCH VS. M.ARCH

To discourage divisions, entitlement, and turf wars, we have not isolated Faculties by degree. Every faculty member who teaches in the M.Arch also teaches at least one course or studio in the B.Arch with the following exceptions:

Adjunct Lecturer Chris Lasch teaches only M.Arch Design Communication courses.

Adjunct Lecturer Valerie Lane teaches only M.Arch Technology Stream courses.

admissions and advising

Admissions and advising are specific to their respective degree programs, with different staff assigned to undergraduate vs. graduate students (see **student support services**, page 33). Each graduate degree or focus area has a Program Chair, who is the primary curricular advisor and chairs the respective admissions committee (see **M.Arch Leadership**, page 31).

professional opportunities

Professional opportunities are handled as a School, rather than by program. See **architect licensing advisor**, page 34. The Internship course, ARC 493 + 593 | Internship+IDP is co-convened (but for most of this course students are in their individual work assignments).

addendum 3: History+Theory

The teaching of architecture history and theory is evolving in the School, both in subject matter and delivery. This section will outline major and developing initiatives, SPC assignments, and how History + Theory pedagogy is taught in studios.

Faculty

In 2012-2013, two faculty members were hired to reinvent the history and theory curriculum.

Associate Professor Lisa Schrenk was hired with tenure from Norwich University. Her expertise is in global architecture history, pre-20th Century history of the built environment, Frank Lloyd Wright's work, and world fairs. Professor Schrenk has a book in production with Chicago University Press (due 2017) on Wright's early career in the Oak Park studio with emphasis on influences from people working with him.

Assistant Professor Clare Robinson was hired on tenure track. She has an M.Arch and taught design before earning her Ph.D. from Berkeley. Her dissertation was on the development of the Student Union building type after WWII and her expertise includes architecture theory, urbanism, and contemporary movements.

Between Schrenk and Robinson, we have expertise across all time periods and in global traditions. They teach the core History+Theory courses and many of the electives in this area.

History+Theory Stream

At the School level, History+Theory is its own curricular Stream, one of five subject concentrations in the School.

CORE COURSES

The core curriculum introduces students to the history and theory of the built environment, from the ancient world to the present and in cultures around the globe. Three of these are co-convened, meaning they have common lectures to grads and undergrads with an extra weekly seminar for graduate and honors students.

ARC 231 + ARC 530 | HISTORY 1: Ancient World

ARC 232 + 531 | HISTORY 2: Renaissance-Modern

ARC 332 + ARC 533 | HISTORY 3: Modern/Contemporary

The remaining core course is particular to each degree:

B.Arch-ARC 471s (ARC 571s as elective) | HISTORY 4: Contemporary Architectural and Urban Theory.

M.Arch-ARC 529 | Introduction to the Built Environment (intended to be taken by all graduate Landscape Architecture and Planning students at CAPLA with the M.Arch students).

ELECTIVES

History+Theory electives are regularly offered in rotation:

ARC 471n + ARC 571n | Urbanism Sonora, Adjunct Lecturer Vint

ARC 497B + ARC 597B | International Expositions, Associate Professor Schrenk

ARC 303 | Investigating the Exhibition, Adjunct Lecturer SImone

ARC 471b / 571b | The Architecture of Chicago, Associate Professor Schrenk

ARC ARC 304 | Visual Literacy, Adjunct Lecturer SImone

ARC 471b / 571b | Regional Intelligence, Associate Professor Domin

ARC 471b / 571b | Middle Landscapes, Assistant Professor Robinson

ARCHITECTURE HISTORY + THEORY MINOR

This minor requires 20-CU (at least 9-CU upper division) with a minimum 2.0 GPA in the minor:

>3-CU of ARC 231 or ARH 201

>9-CU from the four Core courses

>9-CU from ANTH 340A, ANTH 340B, ANTH 343, ANTH 452, ANTH 477, ARC 343, ARC 403, ARC 471B, ARC 471F, ARC 481E, ARC 481E-SA, ARH 312, ARH 343, ARH 403, ARH 406A, ARH 452, ARH 477, ARH 480, ARH 480-SA, ARH 484, CLAS 340A, CLAS 340B, CLAS 340B-SA, CLAS 343, CLAS 452, CLAS 452-SA, CLAS 477, CLAS 484, GEOG 456, HIST 406A, MENA 343, MENA 403, PLG 456, and ARH 340A or ARH 340B.

Milestones

Knowledge of history and theory is checked as part of every Milestone. For Milestone information, see:

- milestones page 55
- B.Arch Milestone 1 page 56
- B.Arch Milestone 2 page 57
- M.Arch Milestone page 60

SPC Assignments

B.ARCH

In the B.Arch, the History + Theory Stream has complete responsibility for A.7 and partial responsibility for A.1, A.3, A.6, A.8, and C.1.

history + theory Bachelor of Architecture										NAAB 2014 STUDENT PERFORMANCE CRITERIA									
School of Architecture - University of Arizona																			
claim partial claim introductory claim										see SPC Guide									
X I																			
Realm A Critical Thinking and Representation										Realm C Integrated Asset Solutions									
criticism A.1 A.3 A.6 A.7 A.8										C.1 C.2 C.3									
FOUNDATION																			
ARC 101 FOUNDATION STUDIO 1										I									
PROFESSIONAL PHASE: CORE - MILESTONE 1																			
ARC 231 HISTORY + THEORY OF ARCHITECTURE 1																			
ARC 232 HISTORY + THEORY OF ARCHITECTURE 2										W -C									
ARC 332 HISTORY + THEORY OF ARCHITECTURE 3										-W -A									
ARC 471a HISTORY + THEORY OF ARCHITECTURE 4										-U-u									
PROFESSIONAL PHASE: APPLICATION - MILESTONE 2																			
ARC 409 CAPSTONE PREPARATION										R									
criticism A.1 A.3 A.6 A.7 A.8										C.1 Resource									
Professional Communication Skill																			
Investigative Skill																			
Use of Process																			
History and Global Culture																			
Cultural Diversity and Social Equity																			

The SPC typically associated with history and theory (A.6, A.7, and A.8) are delivered in a mix of courses and studios, as follows:

Bachelor of Architecture
School of Architecture - University of Arizona

Approved By: Arch Curriculum Committee 2014-12-03
NAAB 2014 STUDENT PERFORMANCE CRITERIA MATRIX

claim

partial claim

introductory claim

SPC Guide

1

Realm A

Critical Thinking and Representation

Criterion	A.6	A.7	A.8
ARC 101: FOUNDATION STUDIO 1			
ARC 102: FOUNDATION STUDIO 2			
PROFESSIONAL PHASE: CORE - MILESTONE 1			
ARC 201: DESIGN STUDIO 3: COMPOSITION	U		
ARC 221: BUILDING TECHNOLOGY 1 - STRUCTURES 1			
ARC 326: LANDSCAPE ANALYSIS AND SITE PLANNING			
ARC 241: DESIGN COMMUNICATION 1			
ARC 297m: MATERIAL FABRICATION 1			
ARC 202: DESIGN STUDIO 2: PERFORMANCE		P	
ARC 222: BUILDING TECHNOLOGY 2 - MATERIALS AND METHODS 1			
ARC 223: BUILDING TECHNOLOGY 3 - ENVIRONMENTAL CONTROL SYSTEMS 1			
ARC 231: HISTORY + THEORY OF ARCHITECTURE 1			
ARC 227: ARCHITECTURAL PROGRAMMING		P	
ARC 303: DESIGN STUDIO 3: TECTONICS	U		
ARC 321: BUILDING TECHNOLOGY 4 - MATERIALS AND METHODS 2			
ARC 341: DESIGN COMMUNICATION 2			
ARC 232: HISTORY + THEORY OF ARCHITECTURE 2			C
ARC 302: DESIGN STUDIO 4: LAND ETHIC	A		
ARC 322: BUILDING TECHNOLOGY 5 - STRUCTURES 2			
ARC 332: HISTORY + THEORY OF ARCHITECTURE 3			
ARC 307m: MATERIAL FABRICATION 2			
ARC 401: DESIGN STUDIO 5: TECHNOLOGY			
ARC 421: BUILDING TECHNOLOGY 6 - ENVIRONMENTAL CONTROL SYSTEMS 2			
ARC 441: CONTRACT DOCUMENTS			
ARC 471: HISTORY + THEORY OF ARCHITECTURE 4	U		
PROFESSIONAL PHASE: APPLICATION - MILESTONE 2			
ARC 451a: DESIGN STUDIO 6: APPLICATION			
ARC 422: BUILDING TECHNOLOGY 7 - STRUCTURES 3			
ARC 459: ETHICS AND PRACTICE			
ARC 451b: DESIGN STUDIO 7: APPLICATION			
ARC 400: CAPSTONE PREPARATION			
ARC 452: DESIGN STUDIO 8: CAPSTONE			

revision record

Use of Precedents

History and Global Culture

Cultural Diversity and Social Equity

A.6 Use of Precedents, *ability*

ARC 201: The purpose and use of architectural precedent is taught for *Understanding* in ARC 201, the first 2nd Year studio. Students learn how and why to use exemplars, both historical and contemporary, in several design problems. They learn to read precedents for various criteria, in addition to formal properties.

ARC 301: In their first tall building project, the use of urban precedents is introduced for *Understanding*. With a tightly constrained site and simplified program, reading building type precedents for environmental and structural properties is stressed.

ARC 302: In the design of a campus for a desert landscape, the *Ability* to use precedents as informed by site analysis and synthesizes the lessons from ARC 201 and 301.

other studios: Almost every studio in the B.Arch includes precedent research and use; we only assign SPC responsibility to those listed.

ARC 471s: The only non-studio course that deals with the SPC, the History and Theory of Architecture 4, provides *Understanding* of precedent in theoretical depth across a variety of thinkers, with an urban emphasis.

A.7 History and Global Culture, *understanding*

ARC 101: In their first studio, students are introduced to history and theory in a seminar module. Started in 2013-2014 as an innovation for getting earlier and better appreciation for historical understanding as part of the design process, it seems to be working. Students are assigned readings related to issues being simultaneously covered in studio, with discussions, short papers, and quizzes.

ARC 232: The bulk of teaching global histories of the built environment is done in History 2 by Dr. Schrenk, who is a world traveler and who has visited most of the sites personally. She uses her own photos and personalizes the works based on her experiences.

study abroad: Obviously, study abroad promotes the understanding of History and Global Culture. One of several options that students have in ARC 451a + ARC 451b is study abroad, which is also available to students as optional summer study. Because study abroad is elective, we make no SPC claims for it. For

recent study abroad opportunities, see the Study Abroad list under: II.1.1 Student Performance Criteria | methodology for assessing work | MILESTONES | B.Arch | Application phase | ARC 451a / ARC 451b | Applications Studios.

A.8 Cultural Diversity and Social Equity, *understanding*

The School divides A.8 into two parts:

CULTURAL: the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals; and

PROFESSIONAL: the responsibility of the architect to ensure equity of access to sites, buildings, and structures.

ARC 202: This studio shares responsibility for *Professional understanding*. It begins with an aggregation of small dwellings; then tackles an elementary school under Reggio Emilia and Montessori pedagogies. In both cases, students deal with creating environments that accommodate and address diverse populations with differing ideologies.

ARC 227: This Programming course shares responsibility for *Professional understanding*. It covers accessibility and the broader intellectual perspective that architects should have for understanding client and user needs.

ARC 232: Through teaching global histories of the built environment in History 2, students understand the diversity of cultural values and needs that architects must accommodate.

M.ARCH

In the M.Arch, the History + Theory Stream has complete responsibility for A.7 and partial responsibility for A.1, A.3, A.6, A.8, B.1, and C.1.

history + theory Master of Architecture

School of Architecture - University of Arizona

claim

partial claim

introductory claim

X

I

see SPC Guide

criticism

A.1

A.3

A.6

A.7

A.8

B.1

Realm A

Critical Thinking and Representation

Realm B

Building Practices, Technical Skills, and Knowledge

Realm C

Integrated Arch Solutions

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PROFESSIONAL: the responsibility of the architect to ensure equity of access to sites, buildings, and structures.

ARC 527: This Programming course shares responsibility for *Professional understanding*. It covers accessibility and the broader intellectual perspective that architects should have for understanding client and user needs.

ARC 531: Through teaching global histories of the built environment students understand the diversity of cultural values and needs that architects must accommodate.

ARC 510e: This studio shares responsibility for *Professional understanding*. Using theatres of various types, it covers accessibility, servicing, patron movement, and public access to teach equity and technology of access in a complex program.