ARCHITECTURAL PROGRAM REPORT

THE UNIVERSITY OF ARIZONA

SCHOOL OF ARCHITECTURE – CALA
FIVE-YEAR BACHELOR OF ARCHITECTURE PROGRAM

Submitted to the National Architectural Accrediting Board
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1. INTRODUCTION TO THE PROGRAM

1.1 History and Description of the Institution
1.2 Institutional Mission
1.3 Program History
1.4 Program Mission
1.5 Program Self-Assessment

1 Introduction to the Program

1.1 History and Description of the Institution

Founded in 1885 by an act of the thirteenth Territorial Legislature, the University was created with an appropriation of $25,000 but no land. Two gamblers and a saloonkeeper donated forty acres of desert as a site. The first building was erected in 1891 and provided classrooms and living quarters for thirty-two students and six faculty members. Now known as Old Main, that original building and the older portion of the Campus immediately to the west of Old Main have been listed in The National Register of Historic Places.

The University of Arizona is designated as the Land Grant University for the State of Arizona. The first Baccalaureate degrees were conferred in 1895, the first Masters degrees in 1903, and the first Doctorates in 1922. At that time, Agriculture and Mines were the only colleges. In 1915, the University reorganized into 3 Colleges: Letters, Arts and Sciences; Mines and Engineering; and Agriculture. Subsequent additions were Education (1922); Law (1928); Fine Arts (1934); Business and Public Administration (1944); Pharmacy (1949); Medicine (1961); Nursing (1964); ARCHITECTURE (1964); Earth Sciences, later incorporated into Engineering (1971); Renewable Natural Resources (1974); Health (Related) Professions (1977); Arizona International College (1994); Honors College (1999); Public Health (2000); and Optical Sciences (2005). Since 1980 there has been significant reorganization of Schools and Colleges. Currently, the University offers 130 undergraduate, 117 master's, 88 doctoral, 5 specialist, and 3 first-professional degree programs through seventeen Colleges and eight schools. In FY 2007, 5568 Baccalaureate, 1399 Master's, 461 Ph.D.s, and 354 first-professional degrees were awarded.

Today, the University of Arizona is internationally recognized as a center of academic excellence and research, ranking as one of the top 20 research universities in the nation (13th among public universities and 20th among all institutions in the amount of research and development funding available – $535,847,000 in FY2006). It is one of about 60 select institutions recognized by membership in the Association of American Universities. In 2005 the University Library was ranked 33rd in the nation among major research libraries.

Enrollment in fall 2007 was 37,217 (34,751 FTE students) including 29,070 undergraduates, 6,870 Graduate, 793 First-Professional, and 484 Medicine students from every state and 119 foreign countries. The University currently employs 14,576 faculty and staff members.

Geographically, the University includes 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, which includes the University Medical Center and University Physicians. It also reaches people throughout the state by encompassing the Science and Technology Park; the Cooperative Extension Service with locations throughout Arizona; the Phoenix campuses; and UA South, a branch campus in Sierra Vista.

The University is maintained by funds appropriated by the State of Arizona and the United States government, and by fees and collections including private grants from many sources.

1.1.1 The School at a Glance

- Five-year undergraduate program leading to the Bachelor of Architecture degree.
- First year is pre-professional with competitive admission to Professional Phase (second year).
- Offers a post-professional Master of Architecture and joint Bachelor/Master degree programs for graduates of four-year Architecture programs.
- **For 2007-08**:
  + 400 applicants to School of Architecture/324 accepted
  170 new students enrolled
  348 undergraduate students (31 part-time)
  178 students in the Professional Phase
  25 graduate students
  19 full-time and 17 part-time faculty (24 FTE faculty)
- **For Fall 2008:**
  69 UA applicants to the Professional Phase (+ 5 transfer students)
  46 UA accepted (+ 2 transfer students)
  Avg. GPA: 3.234 (admitted); 2.982 (applicants)

CURRICULUM GRID

PRE-PROFESSIONAL PHASE

Fall 1st Year	# units	Spring 1st year	# units
ENGL 101 Freshman English	3	◦ENGL 102 Freshman English	3
MATH 110 College Algebra	4	PHYS 102 College Physics	3
* **OR** MATH 112 College Algebra	(3)	PHYS 181 Physics Lab	1
MATH 111 Trigonometry	2	◦ ! ARC 102 Foundation Studio 2	4
◦ ! ARC 101 Foundation Studio 1	4	*Elective – Tier 1 TRAD or INDV*	*3*
Elective – Tier 1 INDV or TRAD	*3*		
OR (Foreign Language Deficiency)	(4)		
	15, 16, or 17		14

◦ These courses have prerequisites which must be completed prior to enrollment
(Fall – Admission to School of Architecture)
(Spring - Eng 101 before 102; ARC 101 before 102)

! These courses must be passed with a grade of "C" or better, before advancing to the next level.

* This course may be substituted for MATH 110, depending on Math Readiness Test score. Student must consult with Math advisor prior to registration.

PROFESSIONAL PHASE

Fall 2nd Year	# units	Spring 2nd Year	# units
◦ ! *ARC 201 Design Studio 1-*Composition*	6	◦ ! *ARC 202 Design Studio 2-*Performance*	6
◦ ! *ARC 221 Building Technology 1	3	◦ ! *ARC 222 Building Technology 2	3
◦ ! ARC 231 History 1	3	◦ ! ARC 232 History 2	3
◦ ! *ARC 241 Design Communications 1	3	! *ARC 227 Architectural Programming	2
Elective – Tier 1 Gender/Ethnicity (INDV or TRAD)	3	*Elective - Tier 1 NATS*	*3*
	18		17

◦ These courses have prerequisites which must be completed prior to enrollment
(Fall - admission to professional phase)
(Spring - ARC 201 before 202 & 227; 221 before 222; 231 before 232)

* These courses should be taken concurrently this semester - they are interrelated and share assignments.

Fall 3rd Year	# units	Spring 3rd Year	# units
▫ *ARC 301 Design Studio 3-*Land Ethics*	6	▫ *ARC 302 Design Studio 4-*Tectonics*	6
▫ *ARC 321 Building Technology 3	3	▫ *ARC 322 Building Technology 4	3
▫ *ARC 341 Design Communications 2	3	▫ ARC 332 History 3	3
*ARC 326 Site Planning	2	*Elective – Tier 2 INDV*	*3*
Elective – Tier 1 INDV or TRAD (whichever remains)	*3*	*OPEN Elective – (level A)*	*3*
	17		18

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 202 before 301; 222 before 321; 241 before 341)
(Spring - ARC 301 before 302; 321 before 322; 232 before 332)

* These courses should be taken concurrently this semester - they are interrelated and share assignments.

Fall 4th Year	# units	Spring 4th Year	# units
▫ *ARC 401 Design Studio 5-*Techniques*	6	▫ *ARC 402 Design Studio 6-*Culture*	6
▫ *ARC 421 Building Technology 5	3	▫ *ARC 422 Building Technology 6	3
▫ *ARC 441 Construction Documents	3	▫ ARC 459 Ethics and Practice	2
ARC 471s Urban Form	3	*OPEN elective – (level A)*	*3*
Elective – Tier 2 NATS	*3*	*OPEN elective – (level A)*	*3*
	18		17

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 302 before 401; 322 before 421; 341 before 441)
(Spring - ARC 401 before 402; 421 before 422; 441 before 459)

* These courses should be taken concurrently this semester - they are interrelated and share assignments.

Fall 5th Year	# units	Spring 5th Year	# units
▫ *ARC 451 Design Studio 7-*Research*	6	▫ *ARC 452 Design Studio 8-*Synthesis*	6
▫ ARC 4xx Capstone Research	3	*OPEN elective – (level B)*	*3*
Elective – Tier 2 HUM	*3*	*OPEN elective – (level B)*	*3*
OPEN elective – (level A)	*3*	*OPEN elective – (level B)*	*3*
OPEN elective – (level B)	*3*		
	18		15
		TOTAL UNITS TO GRADUATE	**167**

▫ These courses have prerequisites that must be completed prior to enrollment
(Fall - ARC 402 before 451 and 4xx)
(Spring - ARC 451 before 452; 4xx before 452)

* These courses should be taken concurrently this semester - they are interrelated and share assignments.

OPEN elective (level A) **100 & 200 level courses (lower division)**
OPEN elective (level B) **300 & 400 level courses (upper division)**

A university minor consists of a minimum of 18 units, 9 of which must be upper divisions

1.2 Institutional Mission

1.2.1 The University of Arizona

As a public land-grant institution, the mission of the University of Arizona is *"To improve life for the people of Arizona and beyond through education, research, creative expression and community engagement."* The University prepares students for a diverse and technological world while improving the quality of life for the people of Arizona, the nation, and the world. The University of Arizona is among America's top research universities (based on NSF total research expenditure data). Compared to other top research universities, the University of Arizona is unusually accessible to students of modest means and wide-ranging backgrounds. This is a place where every student is given the opportunity to reach high goals, and many students and faculty reach the very highest levels of excellence.

In its current five-year Strategic Plan, the University of Arizona asserts that as a premiere *land-grant* university, it plays a vital role in building a thriving state. The University offers the *highest quality education*, excels in creating *new knowledge* that has worldwide impact, and provides leadership and *collaboration* to address the *challenging issues* facing Arizona, the nation and the world.

In quest of its mission, the University pursues the vision of a preeminent student-centered research university. A student-centered research university is a place of learning and discovery where students:

- Have access to world-class faculty and research facilities.
- Will be exposed to leading-edge scholarship integrated into the curriculum throughout their educational experience.
- Can expect individual and small-group educational experiences.
- Have opportunities for learning beyond the classroom.
- Can expect to be challenged to advance, grow, and achieve.
- Will find instructional technology used to support different learning styles.
- Will engage in and be members of a diverse community.
- Will find an atmosphere of mutual respect and responsibility.

A student-centered research university is also a place of research, creative activity, and collaborative relationships where:

- Researchers are valued for the important contributions they make to the advancement of learning, creative expression, scientific knowledge, and quality of life.
- Collaborative relationships across campus disciplines, institutions, economic entities, and community boundaries are the rule rather than the exception.
- Researchers (scientists, artists, and scholars) can expect the equipment, facilities, and resources needed to advance premier work.
- Learning through research, teaching, and collaborative relationships is so well integrated that it is impossible to advance one element without advancing all the rest.
- Research is important to the University's ability to attract, retain, and educate students at all levels.

1.2.2 The College of Architecture and Landscape Architecture (CALA)

1.2.2.1 CALA Mission

The College of Architecture and Landscape Architecture (CALA) at The University of Arizona develops design professionals with a sensibility honed in the edge conditions of an extreme climate on a major international border. The college also produces scholars focused on the environmental and cultural conditions of place. In the practice of appropriate design and scholarly methodologies, CALA students and faculty respond to the local context of the Sonoran Desert and its communities while developing a process of analysis and creation that is portable to other locales. Our Sonoran setting thus offers inspiration and guidance in the study of delicate and unique ecologies worldwide. Located in the oldest continuously inhabited city in the United States, CALA combines knowledge from a culturally rich past and present with cutting-edge environmental research and new technologies to envision global arid communities of the future.

The programs of the College foster leadership in a world that is increasingly complex and interdisciplinary in its challenge. Teaching, research, and outreach are fully integrated in the life of the College. The education we provide considers the worth of traditional values and simultaneously assesses new realities through a continuing visionary exploration of the ethical, technical, and social responsibilities of reflective professional practice.

1.2.2.2 CALA Vision

CALA is recognized as the new model for education of next-generation design professionals and scholars building solutions to major environmental challenges. CALA alumni are at the forefront of sustainability and skilled in research and inquiry; in the synthesis of theory, technology, materials, and context; and in communication and consensus building. CALA alums are major contributors to the design of solutions to the major challenges facing humankind and the globe – designing for energy and water conservation, planning for urban infrastructure, health care, and the preservation of cultural heritage.

1.2.2.3 CALA Core Values and Operating Principles

The College of Architecture and Landscape Architecture represents two central environmental planning and design professions. As an academic institution, we are at the crossroads of the design professions that serve society and the disciplines that search for new knowledge through our teaching and scholarship.

We define ourselves by our success in leadership in sustainable environmental design and planning, and the communication of our findings to our professions and the larger community.

CALA embodies an ethic of self-reliance, integrity, stewardship, and community engagement. We strive:

- To Integrate: establishing strategic partnerships among disciplines, communities, professions, and institutions.
- To Experiment: fostering an environment of discovery through experience and in interdisciplinary laboratories, both natural and controlled.
- To Apply: educating students to be professionals in a global context through knowledge.
- To Engage: reaching out and interacting beyond the university, thus having a signature on the entire region.

- To Inform: communicating our findings as widely as possible.

- To Partner: seeking relationships with alumni, the professions, and the public and private sectors including non-governmental organizations.

- To Seek: transforming ourselves, our daily habits of mind and practice, and those of the people around us.

CALA operates with a design emphasis built upon five pillars of scholarship, as defined by Boyer and others: the scholarships of *Discovery*, *Application*, *Integration*, *Teaching*, and *Engagement*.

CALA is a learner-centered/scholarship-intensive academic/professional unit that strives to advance society and its students through the five pillars. By learner-centeredness, we mean educational approaches that focus on the development of the students who will develop into leaders in a time that we, as faculty and staff, will never see. By the skillful and deliberate intertwining of the Five Pillars, we will assist our students in their development as productive and positive forces in succeeding generations.

1. Development of Self-Reliance and Love of Learning
2. Teaching-Scholarship Link
3. Affective Domain Development
4. Experiential Learning
5. Preparation for Professional Practice

1. Development of Self-Reliance and Love of Learning form the cornerstone of developing any graduate who is to become a leader of tomorrow. Guiding self-reliance and love of learning is the student as "active learner," not as a passive vessel waiting to be filled with content.

2. To have an effective Teaching-Scholarship link, faculty and graduate scholarship must contribute not only to the professional body of knowledge but also to the teaching programs at both the graduate and undergraduate level. "Problem-base learning" is to be differentiated from "project-based learning" (the more typical form of professional education).

3. The Affective Domain deals with the development of values and morals that are consistent with a professional that, in the first instance, serves society.

4. Experiential Learning in a professional program ranges from "learn-by-doing" to professional situations which, in a design-based college, go beyond critical thinking to "responsible creation."

5. Preparation for Professional Practice is the foundation of any professional education. At the conclusion of an educational experience, a student must have learned the history, theory, and practical realms of the profession and their place within the context of allied professions and the greater world in which we live.

Approved August 2008

1.2.2.4 CALA Academic Structure

The College is comprised of three professional programs focused on the development and application of the theoretical and practical knowledge necessary for the effective evolution of human settlements. The College offers an accredited five-year program leading to the

professional degree, Bachelor of Architecture (B.Arch). A post-professional master's program (M.Arch) is also offered by the School of Architecture and an accredited graduate programs are offered in Landscape Architecture (M.L.A) and Planning(MS in Planning) are offered by the School of Landscape Architecture and Planning.

The College also offers an interdisciplinary "umbrella" graduate curricular program in Preservation Studies (http://capla.arizona.edu/preservation) that resides at the College level, drawing students from both schools of Architecture and Landscape Architecture, as well as other units on campus – Planning, Art History, Geography, History, Materials Sciences, Anthropology, and Archaeology. The purpose of the program is to educate students in the preservation of the built environment as part of a comprehensive, interdisciplinary conservation ethic that integrates natural and cultural resources. It promotes collaborative engagement between public and private institutions with a curriculum that incorporates community service as a method of learning as a means to develop practical expertise in the professional standards of the discipline. The Preservation Studies curricular program is a 21-unit content concentration within each of the graduate degree programs of Architecture and Landscape Architecture (as well as a "value-added" certificate in other departments' curricula) with admission and graduation requirements based on the school or department. The courses are taught by an interdisciplinary group of University of Arizona faculty with access to a variety of materials conservation laboratories and research units with parallel missions. The program has received a number of funded contract and research grants from the National Park Service through an inter-agency Cooperative Ecosystem Studies Unit (CESU) agreement that integrates the cultural resource needs of the parks with the technical expertise of faculty and students. Preservation students are also eligible for financial support from the Integrative Graduate Education and Research Traineeship (IGERT) program of the National Science Foundation through the University's Department of Anthropology. The Preservation Studies certificate program is accredited by the National Council of Preservation Education (www.ncpe.us) that defines curricular standards for graduate preservation programs. In Fall 2005, Preservation Studies joined with faculty and resources in Archaeology and Materials Science to offer inter-disciplinary Masters and Ph.D. programs in Heritage Conservation Science (http://www.engr.arizona.edu/heritage/).

The Roy P. Drachman Institute of Land and Regional Development Studies is the research and public service unit of the College and conducts projects of relevance to Arizona communities. The *Technical Assistance Program*, formerly the Community Planning and Design Workshop, is intended to bring the skills and knowledge of the students, faculty, and staff of CALA to communities in need throughout Tucson, Pima County, and the State of Arizona. The *Program* helps to fulfill the Land Grant Mission of the University of Arizona by making its resources available to meet the needs of neighborhoods, community groups, non-profit corporations, cities, towns, and rural areas. Contained within the Drachman Institute are two other entities: the *Drachman Design-Build Coalition, Inc.*, a 501(c)(3) (pending), non-profit corporation, design-build licensed general contractor associated with the College of Architecture and Landscape Architecture and established for the purpose of service-learning development and construction; and *Water CASA*, a water conservation research center formerly part of the Water Resources Center and the College of Agriculture and Life Sciences.

1.2.2.5 CALA Strategic Plan

The following plan covers the five-year period from 2008 to 2013. The full Strategic Plan, complete with strategies and benchmark results enumerated, is available upon request.

Executive Summary

The goals and objectives of the CALA Plan address Provost Hay's four directives and are color coded below:

Provost Hay Directives

1. **Demonstrate increased student success, including how your unit will advance the University's diversity goals and the University's commitment to embedding the outcomes of student assessment into continual improvement of our programmatic activities.**
2. **Advance faculty success, including how your unit will contribute to the University's diversity goals, and how your unit will increase extramural funding, and/or national recognition of our faculty's creative and research endeavors.**
3. **Expand philanthropic success**
4. **Extend community engagement and outreach**

CALA Goals and Objectives

CALA Goal 1. **Guarantee the delivery of core knowledge and competencies for professional practice to all students, while encouraging adaptability in a context of contemporary change.**

Objective

1. **Be informed about and engaged in national discussions about educational trends including content areas for professional school accreditation and registration exams.**
2. **Strive for excellence through the enrichment of existing degree programs in areas of disciplinary core competencies and the college's areas of emphasis.**
3. **Initiate new academic degree and certificate programs that advance students in core knowledge and competency areas.**
4. **Strengthen and promote the Drachman Design Build Coalition (DDBC) as a hands-on curricular experience for design students.**
5. **Improve the quality of career advising and mentoring.**
6. **Develop optimal facilities for proposed program growth.**
7. **Partner with professions to define the next generation professional and future trends.**

CALA Goal 2. **Establish CALA as a leader in interdisciplinary environmental design and planning studies (teaching, research, and outreach) for arid lands.**

Objective 1. Advance CALA as a sustainability leader in environmental design on campus and in the community.

2. Advance research and scholarship in sustainable design and planning studies within CALA areas of emphasis.

3. Initiate new graduate programs that advance CALA in interdisciplinary areas of emphasis.

4. Assemble a CALA faculty balanced between practice and research and comprised of award winning academic-practitioners and internationally recognized scholar-teachers working collaboratively in Tucson, University of Arizona campuses throughout the state, as well as at institutions throughout the world.

5 Initiate collaborative interdisciplinary learning experiences across CALA programs, specifically the School of Architecture and the School of Landscape Architecture.

6. Create teaching, research, and outreach partnerships with other university programs focusing on sustainability.

7. Create a fluid learning environment that blends the classroom, design studio, research laboratory, professional office, and community.

8. Establish a faculty and staff reward system that recognizes and rewards interdisciplinary efforts and the establishment of interdisciplinary partnerships.

CALA Goal 3. Advance CALA as a leader in international studies both on The University of Arizona campus and nationally.

Objective 1. Position international studies at the center of CALA.

CALA Goal 4. Champion diversity of gender, race, class, age, nationality, and sexual orientation within the professions.

Objective 1. Promote a diverse student population that encourages enrollmen from previously under-represented populations.

2. Continue to promote gender equity within faculty, staff, and students.

3. Develop financial support for underrepresented groups.

4. Coordinate efforts in minority recruitment with international study through creation of exchange programs. (See goal 3)

5. Develop strong minority student mentorship program including student-to-student and faculty-to-student mentorship.

6. Recruit faculty to reflect the ethnic diversity of a complex student body.

7. Coordinate Drachman Institute projects with student recruitment of minority populations.

CALA Goal 5. Invigorate CALA as a collegial, accountable, and intellectually dynamic learning community within the context of the professions.

Objective

1. Establish a collegial and collaborative working environment in the college where academic freedom and diversity are valued and respected.

2. Reinvigorate the intellectual climate of the college.

3. Promote shared-governance as defined by The University of Arizona.

4. Improve regular communications throughout the college and community.

5. Establish clear, fair, regular, and confidential processes and criteria for personnel evaluation that are applied uniformly across the college.

6. Clarify and publicize college decision-making and processes including faculty, staff, and student roles and responsibilities

CALA Goal 6. Increase the visibility and connectedness of CALA as a leader on the university campus, in Tucson, and nationally and internationally.

Objective

1. Connect the strengths and reputation of CALA with prospective students.

2. Expand the College's base of influence and affluence locally and nationally.

3. Reconnect with alumni and leaders in the local professions.

4. Create a periodic publication of CALA scholarly and outreach achievement by faculty, staff, and students in a compact digital format.

5. Increase CALA leadership and/or presentation at conferences and Symposia, both internationally and nationally, with an emphasis on our areas of strength and achievement.

6 Establish the Drachman Institute as the preeminent program in community outreach in the US.

7. Promote CALA East as an outstanding example of sustainable architecture.

8. Promote CALA areas of strength as preeminent programs including preservation studies and interdisciplinary, sustainable arid region, and international programs.

CALA Goal 7. **Maximize CALA resources in support of the College vision and goals.**

Objective

1. **Align CALA resources with the college strategic plan.**
2. **Develop a college culture of entrepreneurship and self sufficiency.**
3. **Develop new revenue streams in support of college goals.**
4. **Conduct aggressive college fundraising as part of the overall university capital campaign.**

1.3 Program History

A modest program in architectural engineering at the University of Arizona was offered by the Department of Civil Engineering from 1915 to 1918. In 1956 the Southern Arizona Chapter of the American Institute of Architects (SAC/AIA) began a campaign to start a program in Architecture. In 1958, Sidney W. Little, Dean of Architecture and Allied Arts at the University of Oregon, accepted the position of Dean of the College of Fine Arts and Head of the newly created Department of Architecture. Gordon Heck was appointed Associate Professor and became the first faculty member.

Classes began in the fall of 1958. Thirty students were anticipated but eighty actually enrolled. Several local practitioners were hastily employed to staff the program. Classes opened in a former Safeway store on Park Avenue, one block from the present Architecture building. Growth of the student body and faculty was rapid. In 1960, the faculty numbered seven. The first B.Arch. degree was conferred in June 1961 to a student who had entered the program with advanced standing. The program's emphasis was on design and the UA was known as a "design" school.

In May 1963, in the minimum time possible, provisional accreditation was granted. In September 1963, only five months after accreditation, the Department was authorized to become a separate College of Architecture effective July 1, 1964. Sidney Little was named Dean. The faculty now numbered fourteen. The Architecture building was completed in 1965. It underwent two major additions in 1970 and 1979. In 2001, another major addition was approved. The contract for the new addition has been awarded to the Jones Studio and the programming phase is nearing completion.

A graduate program in Urban Planning was inaugurated in 1963. It focused on public policy rather than physical planning, however, and was transferred into the College of Business and Public Administration in 1970. In 1991, Architecture professor Kenneth Clark was appointed Chair of Planning and the program was placed within the Interdisciplinary Programs unit of the Graduate College. In 1997, the Planning Program was transferred administratively to the College of Architecture.

In 1971, Robert E. McConnell was appointed Dean. The faculty now numbered twenty and enrollment was about 400. A graduate program was established in 1973, and the first M.Arch Degree was conferred in 1976. Ronald Gourley became Dean in 1978. The faculty then numbered twenty-three and enrollment was about 500. During the McConnell and Gourley years, the College developed an emphasis on the environmental concerns of arid regions and on historic preservation. The Architecture Laboratory was incorporated in 1984 as the research unit of the College. Robert Hershberger followed as Dean in January 1988. At that time, there were approximately 600 undergraduates (about 300 in the professional phase), 20 graduate students, 20 full-time faculty, and 15 part-time faculty. To reduce overcrowding and increase the size of the graduate program, the College adopted an enrollment management and resource allocation plan in 1989. The results of that plan are now evident.

During Dean Hershberger's tenure, the Roy P. Drachman Institute for Land and Regional Studies became a center within the College. Its focus on research and community service augmented the College's own activities in these areas. The Architecture Laboratory concentrated its efforts in supporting the emphasis areas of design communication and desert architecture and in implementing international conferences and publications. In addition, the budget for the Architecture Library was transferred to the University Library to eliminate duplication of publications and other materials. The Architecture Librarian is responsible to both units.

In January 1997, Richard A. Eribes was appointed Dean. At that time, there were approximately 400 undergraduates (about 190 in the professional phase), 29 graduate students, 22 full-time faculty, and 13 part-time faculty. In July 1997, the 33-year old Architecture program was joined by the Planning and Landscape Architecture programs to become a multi-unit college, with Architecture continuing its five-year B.Arch curriculum. On Oct. 31, 1997, the College comprised of the School of Architecture, the School of Planning, and the School of Landscape officially changed its name to the College of Architecture, Planning, and Landscape Architecture (CAPLA). In the spring of 2003, the University entered into a campus-wide review of all of its programs under the title of "Focused Excellence." As a result, the School of Planning was identified for elimination. On July 1, 2003, the Planning Program was moved to the Graduate College for final disputation. As a consequence, the College, comprised of the School of Architecture and the School of Landscape Architecture, changed its name to the College of Architecture and Landscape Architecture (CALA).

Álvaro Malo was appointed as the Director of the School of Architecture in 1998 and began an extensive re-evaluation of its mission, goals, and curriculum. A number of changes were instituted, most notably in the Foundation year, in the Technology sequence, in the nature of the Architecture elective offerings, and in the Capstone or final year of the major. The resulting program was presented in the last APR. After one full five-year term as Director and three years of a second term, Professor Malo was removed as Director and Professor R. Larry Medlin appointed in his stead. Professor Medlin served as Director for two years and was succeeded by Associate Professor Laura H. Hollengreen as Interim Director. At the same time she was appointed, the University gained a new Provost, Meredith Hay, and the College gained a new Dean, Janice Cervelli. Their mission has been to stabilize funding and faculty in the School and to position it for renewed growth after the current national recession and state budget crisis have receded.

1.4 Program Mission

While there has been some discussion among faculty about review and modification of the program mission statement, we have deemed it unwise to proceed formally until a new permanent Director of the School of Architecture is in place, an event expected at the beginning of AY 2010-11. The program mission below, therefore, is that developed and approved by the faculty before the last accreditation scrutiny.

Following the mission of the university, the School of Architecture bases its practice on an elastic triad: *teaching, research,* and *service.* It is specifically grounded in the following propositions:

- That the making of architecture is a sensible technical and aesthetic activity that serves the needs of human shelter.
- That the construction of shelter is an imaginative cultural research that seeks to establish dwelling as a proper human aspiration to a graceful life.
- That this educational and professional pursuit must be inflected by the identity of the Sonoran Desert, the geography of Arizona, and the culture of the Southwest — promoting an intertwined *land ethic ~ aesthetic research* binary.
- That in a modern age of increased cultural exchange, this education must become a portable global sensibility; however, its practice must be observant of local traditions, tempered by material circumstances, and expressive of the ethos of *time* and *place.*

Approved by the Faculty of the School of Architecture
March 21, 2002

1.4.1 Bachelor of Architecture – 5 Year Curriculum

To accomplish that mission the five-year course of studies leading to the professionally accredited Bachelor of Architecture degree is organized in the following sequence: *foundation, professional phase,* and *capstone.*

- The first year, or *foundation,* is meant to provide an introduction to elementary principles and basic technical skills that give students an opportunity to test the field and prepare a portfolio for admission into the professional phase.
- Years two through four, or *professional phase*, are aimed at developing the required core of humanistic knowledge, creative ingenuity, and technical craftsmanship that prepares students for professional internship.
- The *capstone* year is focused on experimentation on specific topics leading to the development and synthesis of autonomous or directed work in preparation for professional practice and registration.

The architecture curriculum at Arizona is an ensemble of four subject matters: *technology, history and theory, design communication,* and *critical practice*, all of which must be articulated and integrated as appropriate to each level of the *architectural studio* sequence.

- *Technology* focuses on the realities of site, climate, and material resources. Familiarity with the local geography, traditional materials, and conservation practices, as well as inventive experimentation with and testing of new materials and methods of energy conservation are critical factors in the design of a well-tempered architecture.

- *History and theory* examine architecture as a sensual and intelligent expression of culture. A liberal but well-focused survey analyzing functional and aesthetic continuities in buildings, cities, and landscapes as well as revisions over time and space is necessary for the preservation of and innovation in architecture.

- *Design communication* developed through drawing, modeling, detailing, and oral or written descriptions are critical tools in the creative process. They are also means of effective interaction with clients, material fabricators, members of the construction trades, and ultimately the users of architecture.

- The *critical practice* of architecture is an ethical act in service of human needs, in compliance with and reform of technical protocols and building codes, and in interaction with the construction trades. In addition to required instruction in these topics, hands-on experience in design/build collaborative projects is an effective introduction to this practice.

- The *architectural studios* are organized in a progressive thematic sequence that serves as a scaffold for the whole curriculum: foundation, ergonomics, programming, land ethic, tectonics, systems, urban form, research options, and capstone.

The delivery of the curriculum is made effective and distributed in three consistent pedagogical settings: *classrooms, laboratories,* and *studios.*

- The *classroom* is the forum of presentation and discussion of theoretical and factual knowledge in support of sensible design.

- The *laboratory* is the playhouse of empirical experimentation with materials, structures, and environmental performance, and a place to test physical and virtual design hypotheses.

- The architectural *studio* is the theater of imaginative design propositions that synthesize empirical facts and heuristic theories.

1.4.2 Joint Bachelor/Master's Program

In order to accommodate graduates from four-year programs, a small number of carefully selected applicants are admitted each year into the Undergraduate and Graduate programs concurrently. These students typically spend two to two-and-a-half years completing the requirements for both degrees. Undergraduate requirements are determined by a careful evaluation of each student's transcript. Students must complete all courses required for the five-year B.Arch. degree for which credit has not been transferred from their prior school. The Master's requirements are identical to those in the one-year Master's curriculum.

1.4.3 Master of Architecture Post-Professional Degree Program – 1.5 Year Curriculum

The Master's Degree is a post-professional graduate program designed for students interested in gaining sophisticated knowledge in specific areas of architecture. It advances further the proposition that the Sonoran Desert is an incomparable natural and cultural laboratory. Its intention is to provide increased opportunities for architectural research and experimentation intertwining with greater precision the notions of *land ethic* and *aesthetic research.* To accomplish this mission, the graduate program is currently focused on four distinct but thematically integrated areas of study: Design and Energy Conservation, Emerging Material Technologies, Urban Design and Infrastructure, and Preservation Studies. Applicants for admission indicating interest in other areas of research will be carefully evaluated to determine the possibility of appropriate faculty and institutional support.

- The concentration in Design and Energy Conservation is aimed at experimentation with energy conservation strategies and passive solar systems and their implementation in sustainable and climate responsive architecture appropriate for arid lands. The program is focused on research on environmental indoor and outdoor comfort, material and construction technologies, and theory and computer-aided design methods.

- The Graduate Program in Emerging Material Technologies is aimed at advanced analysis, testing and modeling of the properties of traditional and new materials. Participants are expected to seek quantitative measures of physical efficiency--mechanical, structural, thermal, optical, etc., and qualitative criteria of sensorial performance--auditory, haptic, kinetic, visual, etc. A final purpose is to establish a dual protocol of precise observation and imaginative experimentation, where the material becomes plastic in the laboratory space, available to the free and ordered play of invention, where a conservation of force as well as a conservation of material is realized, obtaining a true economy of production---conceptual, ethical and aesthetical.

- The concentration in Urban Design and Infrastructure is aimed at research on and refinement of methods of understanding, designing, and building the city, methods that often must integrate the disciplines of architecture, landscape architecture, and city planning. The program is focused on developing design strategies that are technically and aesthetically fitting for urban settlements located in arid zones.

- The concentration in Preservation Studies is aimed at research on traditional and experimental practices of preservation as part of a holistic conservation ethic embodying comprehensive multi-disciplinary and inter-institutional stewardship of the natural and cultural resources of the greater Southwest.

1.4.4 Program Strategic Plan – Measurable Goals

While a new strategic plan for the School has not been separately formulated in recent years, the comprehensive CALA Strategic Plan included above includes many specific program goals. These were defined in a process undertaken at the request of the provost in Summer 2008 and led by our new Dean, Janice Cervelli.

The program strategic goals that appear below are those from the last APR and still in effect. Responding to the mission of the University of Arizona as a public land-grant institution, as well as its own program mission, the School of Architecture bases its strategic plan on the functional triad of teaching, research, and service.

Responding in addition to a disciplinary mission, the School of Architecture adopted the most appropriate goals and objectives outlined by the two Boyer Commission Reports of the Carnegie Foundation for the Advancement of Teaching: 1) *Building Community: A New Future for Architecture Education and Practice*, and 2) *Reinventing Undergraduate Education: A Blueprint for America's Research Universities*. The latter was the focus of the University of Arizona Annual Retreat for Department Heads held in August 1999 with the theme, "A Student-Centered Research University."

The Strategic Plan, outlined below, is an effort to integrate the mission of the School of Architecture and the mission of the University with the appropriate goals of the two Boyer reports.

A. TEACHING AND LEARNING GOALS

1. ***Make Research-based Learning the Standard***
   OBJECTIVES:
   - Beginning with freshmen, engage students in research in as many courses as possible.
   - In the freshman and sophomore years, expose students to diverse fields, revealing the relationships among sciences, humanities, and arts.

   MEASURES:
   - Number of required 100, 200 and 300 level courses with research/laboratory components.
   - Number of architecture SCH in 100 and 200 level courses (including general education classes) in which interdisciplinary relationships are experienced and explored.

2. ***Establish Precise, Flexible, and Integrative Curricula***
   OBJECTIVES:
   - Create a curricular structure that responds to the pedagogical missions of each program.
   - Identify clearly the logic of each curricular sequence and its integration with the whole.
   - Support the development of critical thinking, appropriate technologies, effective communication methods, and humanistic practices.
   - Allow students and faculty to experiment with new and innovative teaching and learning processes.

   MEASURES:
   - Ongoing evaluation by curriculum committee via discussion with students and faculty.
   - Student/faculty satisfaction surveys.
   - School-wide faculty evaluation of individual course outcomes, student portfolios, and exhibits.

- University administered course evaluations.

3. ***Construct an Inquiry-based Freshman Foundation***

OBJECTIVE:

- Construct the freshman program as an integrated, interdisciplinary, inquiry-based experience.

MEASURES:

- Evaluation by curriculum committee via discussion with students and faculty.
- Student/faculty satisfaction surveys.
- School-wide faculty evaluation of ARC 101 and 102 student portfolios and exhibit.
- University administered course evaluations.

4. ***Remove Barriers to Interdisciplinary Education***

OBJECTIVES:

- Introduce students to interdisciplinary studies in lower-division courses.
- Refine interdisciplinary studies in upper-division courses.

MEASURES:

- Evaluation by curriculum committee via syllabus review, discussion with students and faculty.

5. ***Culminate with a Capstone or Thesis Experience***

OBJECTIVES:

- Use the capstone to prepare seniors for the expectations and standards of graduate work and the professional workplace.
- Make the courses a culmination of the inquiry-based learning of earlier coursework, broadening, deepening, and integrating the total experience of the major.
- Allow the major project to develop from earlier research or an internship experience, if possible.
- Promote, whenever possible, collaborative efforts among students in capstone experiences.

MEASURES:

- Evaluation and discussion of Capstone projects by a jury composed of educators and practitioners.
- Evaluation and discussion of Capstone projects relative to the curricular sequences: (Technology; History/Theory; Design Communication; Responsible Practice; Experimentation).

B. RESEARCH AND SCHOLARSHIP GOALS

1. ***Promote Creativity***

OBJECTIVES:

- Adopt comprehensive pedagogical methods that include heuristic learning.
- Promote faculty and student interest in research and experimentation.
- Organize events that promote and recognize high standards of production by faculty, students, and supporting staff.

MEASURES:

- Number of Grants and amount of Research funding generated annually by faculty and students.
- Number of student and faculty exhibits, lectures, etc., organized annually within the College.
- Number of awards, laudatory articles, generated by above.
- Number of publications, guest lectures and outside exhibits by, or that feature, our faculty and students.

2. ***Integrate Laboratories with Pedagogy***

OBJECTIVES:

- Integrate existing and future shop facilities as pedagogical laboratories supporting studio and classroom activities.
- Provide opportunities for design/build, experimental construction assembly, and demonstration projects.

MEASURES:

- Number of courses that provide opportunities for design/build, experimental construction assembly, and demonstration projects.
- Number of SCH dedicated to design/build, experimental construction assembly, and demonstration projects.

3. ***Engage in Interdisciplinary Work***

OBJECTIVE:

- Engage in interdisciplinary collaboration with other programs in the College and the University.

MEASURES:

- Number of interdisciplinary research projects, service projects or courses annually.
- Number of faculty and students involved in interdisciplinary research projects, service projects, studios or courses annually.
- Number of students presenting interdisciplinary Capstone projects annually.

4. ***Collaborate with Local Government, Professional Associations and Industry***

OBJECTIVES:

- Engage in collaborative work with local governments in projects that have research potential.
- Collaborate with professional associations and industry in projects that have technical and practical potential.

MEASURES:

- Number and kind of collaborative projects in which the College is involved.
- Number of publications, amount of grants and number of built projects that result from these collaborative projects annually.

5. ***Promote International Exchange***

OBJECTIVES:

- Maintain collaborative exchange with international institutions that have similar cultural and historic backgrounds.
- Seek exchange and collaboration with international institutions that have similar ecological determinants and shared research interests.

MEASURES:

- Number and type of official collaborative international exchange program contracts.
- Number of students and faculty participating in each of the exchange programs.

C. SERVICE AND OUTREACH GOALS

1. ***Support Community Service***

OBJECTIVES:

- Provide effective support to the Community Planning and Design Workshop (CPDW) through dedicated interdisciplinary studios and Capstone projects.
- Effectively support education and research opportunities that involve faculty, students, and staff in projects serving the needs of local and state communities.

MEASURES:

- Number of CPDW projects realized through studio or capstone involvement annually.

- Number of students or faculty involved in CPDW projects annually.
- Number of agencies/clients benefiting from CPDW projects.
- Number of students, faculty or staff involved in non-CPDW service-learning opportunities.
- Number of clients/agencies benefiting from non-CPDW service-learning opportunities.

2. ***Collaborate with Professional and Governmental Organizations***

OBJECTIVES:
- Collaborate with governmental and public agencies in public interest projects.
- Maintain effective exchange with the professional communities through faculty research and consultation, student internships, and technological cooperation.

MEASURES:
- Number of public interest projects realized through collaboration with government or public agencies.
- Number of students completing Internships annually.
- Number of projects involving faculty/professional cooperation.
- Number of projects involving *pro bono* faculty consultation.

3. ***Promote Preservation of Natural and Cultural Resources***

OBJECTIVES:
- Establish interdisciplinary research and learning opportunities by working on projects focused on preservation of the natural and cultural patrimony.

MEASURES:
- Number and nature of architectural or interdisciplinary preservation projects.
- Number of faculty and students involved in preservation research efforts.

4. ***Support International Outreach***

OBJECTIVES:
- Promote international exchange with countries that have cultural and geographical similarities.
- Develop well-structured international programs, particularly with institutions that have shared research and design interests.

MEASURES:
- Number of faculty and students involved in international exchange/service/outreach.
- Number and type of official international service exchange programs.
- Number of students and faculty participating in each of these official exchange programs.

5. ***Engage in Continuing Education***

OBJECTIVES:
- Deploy the educational resources of the school by means of publications, events, and continuing education programs that serve the needs of the professional communities and the public at large.

MEASURES:
- Number, type and distribution of publications.
- Number and type of educational events sponsored by the College.
- Attendance and demographics of attendees at these events.
- Number of continuing education programs offered.
- Attendance and demographics of attendees at continuing education programs.

D. OPERATIONAL GOALS

1. ***Abide by Clear Governance***

OBJECTIVES:

- Write and implement clear governance bylaws that are in accordance with College and University policies.
- Conduct fair and equitable annual evaluations of faculty and supporting staff in collaboration with the pertinent committees.

MEASURES:

- Ratification of bylaws by College faculty and University administration.
- Number of evaluations appealed by faculty or staff.

2. ***Change Faculty Reward Systems***

OBJECTIVES:

- Recognize the correlation between good undergraduate teaching and good research in promotion and tenure.
- Cultivate a "culture of teaching"...to heighten its prestige and emphasize the linkages between teaching and research.
- Recognize and reward any teacher capable of inspiring performance in large classes.

MEASURES:

- Once the definition and norms of "good teaching" and "good research" and the correlation between them have been established, compare the performance of faculty to these correlated norms.

3. ***Promote Operational Economy***

OBJECTIVES:

- Simplify the operation of standing and ad-hoc committees.
- Invest operational and discretionary funds in expenditures that promote the pedagogical growth of the school.

MEASURES:

- Compare the efficacy and efficiency of old and new committee systems by self-evaluation by committee members.
- Review outcomes of courses and studios by faculty and administration for signs of improvement in analytic and synthetic abilities, skill levels and creative output of students.

4. ***Cultivate a Sense of Community***

OBJECTIVES:

- Use collaborative study groups and project teams as a means of building community.
- Support multicultural [arts] programming, major issues forums, and other events to promote the sharing of ideas and experiences.
- Design campus programming such as lectures and the performing arts to touch the interests of as many audiences as possible.

MEASURES:

- Attendance at each of the events
- Satisfaction surveys of faculty and students
- Retention rates of faculty and students

5. ***Maintain Good Housekeeping***

OBJECTIVES:

- Expand facilities to match space standards of peer institutions.
- Renovate existing facilities to improve pedagogical and operational efficiency

MEASURES:
- Compare standards of new facilities to norms and ideals.
- Post-occupancy evaluation of new and renovated facilities after 2 years.

1.5 Program Self-Assessment

Under the leadership of a new Dean and with a new Strategic Plan in place, the College and School have reinvigorated their commitment to interdisciplinary collaboration in all aspects of environmental design education and to preparation of students for critical, reflective professional practice. In the School of Architecture, a strong emphasis on research and experimentation has been facilitated by significant changes in the composition of the faculty, substantial capital investment, and curricular reform and refinement. Finally, we remain committed to a sensibility that is respectful of place while solicitous of dialogue across regional and national lines.

New hires anticipated for next year will allow the school to re-grow after significant losses due to retirements and departures since the last accreditation. The major challenges for the program lie in declining university funding, with the School of Architecture having suffered significant rescissions and/or cuts in every year since 2004. We are facing a painful 10% cut in 2009-10, on top of a 9.5% cut in 2008-09. The reduction of administrative and support staff, the increase in teaching loads, the temporary suspension of many electives in order to deliver our required courses ... these necessary changes have a negative effect on quality of life for both faculty members and students in the School of Architecture.

2. PROGRESS SINCE THE PREVIOUS SITE VISIT

2.1 Summary of Responses to the Team Findings
2.2 Summary of Responses to Changes in the NAAB Conditions

2 Progress since the Previous Site Visit

2.1 Summary of Responses to Team Findings

At the November 2003 meeting of the National Architectural Accrediting Board (NAAB), the Board reviewed the Visiting Team Report to the University of Arizona and the response received from the school. As a result, the professional architectural program Bachelor of Architecture was granted a six-year term of accreditation with the stipulation that a focused evaluation be held in three years' time to look only at Physical Resources and Professional Degrees and Curriculum and the progress that had been made in those areas.

The previous Team Report, dated September 17, 2003 had identified five strengths, six causes of concern, and five deficiencies. The deficiencies and causes of concern are cited in italics below with the School of Architecture response to each team remark following.

Conditions Not Met

Condition 3: Public Information

The program has generally moved from printed promotional and catalog material to on-line electronic sources. The last printed copies of such material (Undergraduate Catalog 1998-99 and Graduate Catalog 2001-02) do not contain the NAAB required information. Current electronic documents do contain the NAAB information, but in a version that is several years old and not consistent with the statement as contained in NAAB 1998 Conditions and Procedures. Evidence is not compelling that all faculty and incoming students are furnished with a copy of the 1998 Guide to Student Performance Criteria.

**To complete reporting on this condition, provide in the next annual report copies of the publication information regarding accredited programs with the correct language from both print and electronic formats.*

The most recent version of the promotional literature and the website have been updated with NAAB required information, using the exact language found in appendix A of the current Conditions. Both website and print materials are included. All faculty members receive a copy of the current Conditions for Accreditation – Section 3.13 Student Performance Criteria annually. All students, including incoming Freshmen, are furnished during the fall semester with a copy of the Conditions for Accreditation – Section 3.13 Student Performance Criteria.

Condition 7: Physical Resources

The current facility is taxed beyond its practicable ability to properly house the current program. Design studio space is undersized by roughly a factor of two, lecture and seminar space is minimal and must be shared with other disciplines, and faculty offices originally designed to house one person now typically house two. There is inadequate studio layout and pin-up space and laboratories are remotely located several blocks away from the main facility. Model building activities frequently occur in an outdoor area adjacent to the building and student project reviews are typically held in corridor space.

In short, the success of the UA SOA program is occurring not because of the facilities, but virtually in spite of them.

**Continue reporting on progress with the new building expansion and future renovation.*

The College has completed construction on two projects to provide better facilities to its students, faculty and staff: a $9.4 million Expansion encompassing 33,020 square feet – virtually doubling the capacity of the current physical resources – completed in August 2007; and a $3.1 million Remodel of the existing Architecture Building completed in August 2007. The Expansion includes Material Laboratories (7,000 square feet for wood, metal, concrete, glass, and ceramics with additional 5,200 square feet of exterior covered labs), Design Studios (15,600 square feet), Faculty & Administrative Offices (4,150 square feet), Class/ Review Rooms (3,600 square feet), and Roof (13,000 square feet of live load-compatible exterior space for additional Energy and Environmental Testing Labs as well as a proposed "green roof" pending future funding). The Expansion also integrates the graduate School of Landscape Architecture, and with it, laboratories and facilities open to the School of Architecture including a wetlands garden and a three-story "green wall" covering the southern façade. The Remodel includes enlarged and enhanced College administration offices, a renovated T.M. Sundt Design Gallery (including new lighting and mechanical systems, roof, and floor), an enlarged computer laboratory, as well as renovated and upgraded design studios and offices.

Condition 11: Professional Degrees and Curriculum

The program requires a minimum of 168 credits for graduation. Of these, 122 credits are in architecture courses, which include the Foundation Studios ARC 101 and 102, in the first year of the program. The remaining 46 credits are in general studies and non-architecture electives.

The required minimum architecture credits in the program are 72.6% of the total credits required. NAAB criteria require that no more than 60% of a student's required post-secondary education be devoted to professional studies. The 72.6 actual percentage means that students have little flexibility to pursue special interests or develop academic concentrations beyond the required architectural courses.

This condition was also "Not Met" at the time of the 1998 Accreditation Visit. At that time 69.5% of the required curriculum was in architectural courses.

**Continue reporting on the implementation of the proposed curriculum revision to allow greater elective choices and to meet the NAAB percentage of professional credits.*

As reported last year, the School of Architecture Curriculum Committee, with approval of the Faculty as a whole, finalized a curricular revision reducing the number of required credit hours in Architecture courses in the B.Arch. program from 122 hours to 102—in response to the condition not met identified above. The ratio of required Architecture credits to total credits is now 102:167 = 0.611 – almost exactly the 60% required by NAAB criteria. The implementation of the revised curriculum became effective in the Fall 2004 and continues today.

This action allows the development of a minor focus within each student's program of study, but does not require it. Students may continue to choose electives offered by the School of Architecture. While this action may have the result of reducing the number of Architecture electives and the frequency with which they are offered, it simultaneously allows the School Director more freedom in granting releases from teaching for development of research agendas, for tenure and promotion activities, and for sabbatical leaves.

Condition 12.28: Technical Documentation

Evidence is lacking that each student, working in teams of six, acquires the ability to produce a complete set of technical documents.

**Continue reporting on how individual students are evaluated in their ability to effectively produce a set of technical documents while working in a group setting. If this process is deemed adequate, provide the next accreditation team visit with evidence of individual ability for this condition.*

As reported last year, the faculty member who teaches ARC 441 – Construction Documents is well aware of this observation, and discussed the matter with the Visiting Team during the Site Visit. The number of students working in a group has been cited incorrectly. The students have traditionally worked in groups of four. Due to the numeric breakdown of the class, there are occasionally two groups of five – never groups of six. There are a series of checks and balances in place that ensure that the students gain exposure to production of the full set. The students are required to update a Planning and Utilization Chart at each of the project deadline benchmarks. The benchmarks are consistent with a traditional Design, Bid, Build Owner-Architect Agreement, occurring at 10%, 35%, 60%, 99%, and 100%. The Utilization chart specifies which students have engaged in specific tasks. The sets are graded at 10%, 35%, 60%, 99%, and 100% via formal submission. The title block, which every drawing is required to have, indicates the individuals who have worked on specific sheets. The instructor, to assess whether or not students are gaining the required knowledge base and skill set at each increment, checks information contained on individual sheets against the Utilization Charts. The students receive a grade for the submission as a whole, and they receive an individual grade at each submission. In addition, at each submission the students fill out a form, which requires them to evaluate their performance as well as the performance of each student in the group. These two elements are utilized as indices in the course exercise to determine whether or not students are performing to requisite levels.

Criterion 12.29 Comprehensive Design

Because of the variable scope and scale of individual studio projects, evidence is lacking that every student meets this criterion. The Capstone Studio, cited as playing a major role in meeting this criterion, allows a student to select a highly theoretical or philosophical problem with no assurance that they have, or will, complete a comprehensive architecture design problem within the 5 year program's duration.

**Continue reporting on the adoption and effectiveness of the three studios (ARC 301, 302, 401) to meet the condition of comprehensive design through simple to increasingly complex projects.*

As reported last year, the Capstone Studio, ARC 452, is no longer the course required to satisfy this criterion. Beginning in the 2004-2005 academic year, the following studios were revised and adjusted to meet Criterion 12.29, Comprehensive Design: ARC 301 – Land Ethic, ARC 302 Tectonics, and ARC 401 – Technical Systems — this allows a gradual development of the criterion in the evolution of projects from simple to complex. In ARC 301, it is done through the complete design of a dwelling that satisfies site and environmental, programmatic and material/constructive requirements. In ARC 302 – Tectonics, it is done through the design of a small public building that satisfies programmatic, material, structural and enclosure/ environmental requirements. In ARC 401 – Technical Systems, it is done through a more complex public building through integration of programmatic requirements with technical, constructive and environmental controls/life safety systems. In ARC 302 and ARC 401 in-depth case studies of internationally commended projects/architects involving investigative project analysis and documentation inform students about the standards and scope expected in their own design work.

Causes of Concern

Condition 5: Human Resources

Each full-time faculty member is required to teach two courses per semester, requiring approximately 60% of their time. The balance of faculty time is spent on research and service. The split between these two activities is not equal for all faculty members, which may hinder opportunities for faculty tenure and promotion.

**Continue reporting on the equitable adjustment of teaching loads for faculty research and promotion and tenure activities.*

As suggested above, the conversion of required electives to free electives has liberalized the curriculum, giving more freedom to students while also giving greater latitude to the faculty to seek teaching releases in pursuit of research and promotion and tenure development activities. Faculty seeking tenure and promotion are typically given one course release every two years.

Career progress is reviewed annually for each tenure track faculty member. The School of Architecture Faculty Status Committee conducts an annual Assessment of Progress Toward Promotion and Tenure or an Interim Promotion and Tenure Review. Reports/ recommendations from these assessments are given to the School Director as input into his/her Annual Review Letter and subsequent meeting with each faculty member. Through this process, any appropriate equity adjustments of teaching loads or other assigned faculty duties may made and many have been made, mostly in the current AY 2008-09.

Condition 8: Information Resources

Although the budget of the Architecture Library is increasing annually, there is a serious concern that physical and fiscal constraints have led to inadequate library hours that limit access to this resource. In addition, new multiple locations of the holdings of the Architecture Library have significantly reduced convenience of this access.

**Continue reporting on progress toward creation of a new library facility for which adequate hours can be maintained and provide space to hold the collections in a single location.*

This is still a cause of concern that will remain effective until the question of the library is properly resolved. Dean Emeritus Richard A. Eribes worked actively on a committee selected by the Provost's office to develop the approach for a university project designated as "The Fine Arts Library", which would integrate the College of Architecture and Landscape Architecture, the College of Fine Arts, and the Center for Creative Photography separate libraries in a unified single facility to be built adjacent to the Architecture building. More recently, planning for this has stalled in the face of significant university budget cuts. Interim operational strategies have included the relocation of the Architecture Library into the Fine Arts Library. This facility is located in the Fine Arts Complex, which is adjacent to the Architecture Building. This interim arrangement offers more space, combined arts and architecture collections, increased staffing, and increased operating hours over the previous arrangement within the Architecture Building. In 2006 the Library hired a new librarian to supervise the Architecture collection. Her name is Paula Wolfe.

Criterion 12.26: Building Economics and Cost Control

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance

level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**To complete reporting on this concern, in the next annual report provide syllabi for the courses identified (Construction Documents and Ethics and Practice) highlighted to show where and how the performance level will be raised from "awareness" to "understanding" of building economics and cost control.*

The discussion of the upgrading of level of this criterion from "Awareness" to "Understanding" began even before the recent Site Visit. The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. The faculty member teaching these courses has revised the pedagogical objectives, methodology, and requirements accordingly.

More specifically, ARC 441 addresses cost control through in class fee structuring exercises and independent quantity exercises developed to understand unit pricing indices. The quantities exercises are linked to the submission benchmarks to demonstrate escalation potential as level of detail increases. Control measures are discussed and implemented in two forums; one, the resolution of the project and documents, two as a primary focus in the lecture content. Lectures establish an understanding of cost control in the context of varying delivery methods, specifically utilizing AIA documents AIA A201, AIA A191, AIA B901, and AIA B801/CMA. ARC 459 utilizes a semester-long project requiring students to commission the fabrication of a finite constructive element to a specific budget. The element is selected from the project completed in ARC 441. The quantity/unit cost increment developed in ARC 441 is used to establish a budget for the element. Interface with the fabricators and limitations set on the fabrication by restricted budgets establish a clear understanding of the relationship between economic constraint and design intent.

Criterion 12.27: Detailed Design Development

There are solid courses in materials and components. Proficiency in communicating configurations and assemblies to satisfy building programs is not fully evident for all students in the single course cited as meeting this criterion. Contributing to this condition is the fact that students are permitted choices in the focus of their investigation which might not include building programs.

**Continue reporting on the three revised courses (Land Ethics, Tectonics and Technical Systems) insofar as they meet the condition of detailed design development. Reporting could be completed by included the syllabi with relevant portions highlighted in the next annual report.*

As already stated in the response to a criterion not met, 12.29 Comprehensive Design, this condition is satisfied progressively in three required studios: in ARC 301, it is done through the complete design of a dwelling that satisfies site/environmental, programmatic and material/constructive requirements; in ARC 302 - Tectonics, it is done through the design of a small public building that satisfies programmatic, material, structural and enclosure/ environmental requirements; and, in ARC 401—Technical Systems, it is done through a more complex public building through integration of programmatic requirements with technical, constructive and environmental controls/life safety systems.

Criterion 12.31: The Legal Context of Architectural Practice

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance

level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the two identified courses (Construction Documents and Ethics and Practice) will meet the increased performance level of "understanding" regarding legal context.*

The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. In both courses the Legal context of Architecture is addressed through the analysis of specific AIA Contracts and Documents. Case studies are utilized to demonstrate salient aspects of all agreements inherently stated and implied. As stated in the response to Criterion 12.26 specific contracts utilized to underscore the legal context in varying scenarios are AIA A201, AIA A191, AIA B901, and AIA B801/CMA. The other AIA documents are identified and their implications in critical practice outlined. Understanding is demonstrated in testing and in completion of Thorough Code Analysis and Instructive notation included with the Construction Documents completed in ARC 441.

Criterion 12.37 Ethics and Professional Judgment

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the identified course (Ethics and Practice) will meet the new performance level of "understanding" regarding ethics and professional judgment in its course content.*

As reported last year, the course designated to meet this upgraded criterion is ARC 459 – Ethics and Practice. Understanding is achieved through evaluation of case studies in critical practice and individual work being fabricated. Utilizing four ethical tenets as a governing index *(teleology, deontology, virtue, and contract theory),* students evaluate the work and methodologies of four different practice typologies - Canonical, Critical Regionalist, Universalist, and Applied Technical Research. Each form of practice and the work generated by the architects representing the typologies provide different complex relationships internally and socially. Each has a divergent economic foundation. By evaluating the practices and work in the context of the four prescribed ethical tenets, the students develop their own ethical indices and professional judgment value scales. The case study evaluation is accomplished in lecture and discussion with testing being utilized as the indicator of understanding. Understanding is comprehensively demonstrated through the critical evaluation of the commissioned fabrication element mentioned in response to criterion 12.31. The students make sequential submissions over the course of the semester, each time evaluating the work, process and social interaction in the context of the ethical tenets. At the completion of the course the students produce a document that indicates the development of critical ethical value and professional judgment.

2.2 Summary of Responses to Changes in the NAAB Conditions

The Changes in the NAAB Conditions are spelled out in two documents: 2004 *NAAB Conditions for Accreditation* and the 2008 *NAAB Procedures for Accreditation.*

The most significant changes to NAAB Conditions have come in the form of the requirement of a Studio Culture Policy, to be ratified by both faculty members and students, and in the consolidation of 37 Student Performance Criteria into 34 to be assessed in terms of two levels of competence (ability and understanding), rather than the prior three.

As detailed in section 3.5 on Studio Culture below, a policy document has bee collaboratively developed and refined by faculty members and students during the period January 2008-February 2009. It is now a strong, thorough document that addresses all aspects of the studio environment, in response to the aspirations of the faculty and student body and in adherence to University of Arizona and College of Architecture and Landscape Architecture policies.

The consolidation of the NAAB Student Performance Criteria has allowed us to see better how individual criteria may be satisfied to different degrees across the whole professional curriculum. All syllabi now include a header listing the criteria deemed to be satisfied by each course and a section that refers to the criteria as a whole, with the link for the NAAB website.

Other, more general changes to the B.Arch program since the last accreditation are summarized below.

2.2.1 Changes to the Mission Statement

While the Mission Statement adopted before the last accreditation has not been formally revised, the School is contemplating changes in its wording that would better convey our commitment to preparation of students for professional practice.

The curriculum is understood as the primary instrument to accomplish the Mission and, in turn, the Mission is the conceptual vector that guides analysis and refinement of the Curriculum. The Mission is based on an understanding of the study of architecture at Arizona grounded in the following binaries: individual and social needs and desires; technical capacity and practical responsibilities; regional character and global trends; and land ethic and aesthetic research.

2.2.2 Changes to the Strategic Plan

Although the School of Architecture has not adopted a new strategic plan of its own, a delay rooted primarily in multiple recent changes of leadership, the Interim Director and several faculty members played an integral role in development of a new College Strategic Plan in Summer 2008. That Strategic Plan, summarized in section 1.2.2.5 above, includes many specific goals and objectives for the School of Architecture. This Strategic Plan for 2008-13 was presented to the faculty in Fall 2008.

2.2.3 Changes to the Curriculum

After implementation of a major restructuring of the B.Arch curriculum during the years 1998-2003, the School has monitored the effectiveness of the new structure and continued to make changes to refine it, in many cases to redress deficiencies and causes of concern cited at the time of the last accreditation.

2.2.4 Faculty

In the past six years, two full-time faculty members have retired and six have resigned to pursue positions elsewhere; these losses have been replaced by only four new full-time hires, resulting in a net loss of four positions. However, searches are underway this year for four tenure-track positions to address the shrinkage of the faculty.

A complete description of the faculty can be found in section 3.6.2, Human Resources.

3. THE THIRTEEN CONDITIONS OF ACCREDITATION

3.1 Program Responses to the NAAB Perspectives
3.2 Program Self-Assessment Procedures
3.3 Public Information
3.4 Social Equity
3.5 Studio Culture
3.6 Human Resources
3.7 Human Resource Development
3.8 Physical Resources
3.9 Information Resources
3.10 Financial Resources
3.11 Administrative Structure
3.12 Professional Degrees and Curriculum
3.13 Student Performance Critera

3 The Thirteen Conditions of Accreditation

3.1 Program Response to the NAAB Perspectives

3.1.1 Architecture Education and the Academic Context

The education of the professional architect requires an institution with resources and commitment of the highest caliber. In National Science Foundation rankings the University of Arizona is in the top fifteen of public institutions nationwide (it was thirteenth in the latest rankings available, for 2005-06) and 20th among all U.S. universities. Several of the very best programs in the country are located at the UA, including departments in the sciences, fine arts, social and behavioral sciences, and the humanities. In addition, the institution has a national reputation for interdisciplinary research. This tradition of excellence permeates the institution and sets an expectation of quality for the School of Architecture as an integral component of the University community.

Over the course of the last ten years, the College has undergone three organizational changes. First, in 1998, it was reorganized from a single discipline unit into a multidisciplinary College with Schools of Architecture, Planning, and Landscape Architecture, respectively, and was renamed the College of Architecture, Planning, and Landscape Architecture (CAPLA). Second, in 2003, the University re-examined its programs under the concept of "Focused Excellence" and targeted several programs for elimination. This resulted in the transfer of the School of Planning to the Graduate College for a year as procedures for closure were initiated; in the end Planning was retained and placed within the Department of Geography and Regional Development in the College of Social and Behavioral Sciences (SBS). Although the School of Landscape Architecture was also under threat, the advocacy of the College and local practitioners achieved its preservation within the College. At the end of the "Focused Excellence" restructuring, the College became the College of Architecture and Landscape Architecture (CALA). Most recently, through the efforts of Dean Janice Cervelli in Fall 2008, CALA has won the re-integration of the discipline of planning, which has returned to our College from SBS. In order not to enlarge the administrative staff at a time of severe budget constraints and University-wide reorganization, Planning did not return to become again an autonomous School but was absorbed into the School of Landscape Architecture, now renamed the School of Landscape Architecture and Planning. The College remains CALA for the moment but discussions are underway about possible name changes.

With the re-consolidation of all environmental planning and design disciplines, the College is poised for new interdisciplinary endeavors among its units and with programs in other Colleges. Curriculum planning has been initiated with a view to identifying opportunities for interdisciplinary collaboration among Architecture, Landscape Architecture, and Planning at the introductory or foundation level, in the history/theory curriculum, and in parts of the studio curriculum. The Director, faculty members, and staff of the School of Architecture have also participated in discussions about collaboration with the School of Art in foundation-level studio and some history/theory courses, with the Eller College of Management in a proposed new Masters degree in Real Estate Development, with other units and Colleges across campus (including the Colleges of Agriculture and Life Sciences, Engineering, Law, Management, and Science) in a new Sustainability initiative modeled on the "Bio-5" Institute for Collaborative BioResearch at the UA.

In addition to the new initiatives described above (all inaugurated within the current 2008-09 academic year), there have been significant relationships with the Southwest Center in the College of Social and Behavioral Sciences (now being disbanded, however) and with the Colleges of Agriculture and Life Science, Engineering, and Public Health continue. A drive toward interdisciplinary collaboration has been a major criterion in the hiring of new faculty, the

programming and design of our recent building addition, and the development of interdisciplinary coursework.

These endeavors build upon a long tradition within the program of encouraging exposure to other fields of knowledge and ways of thinking. School of Architecture faculty members maintain a strong commitment to a broad liberal education. The University's General Education requirements for undergraduates support this commitment. Currently, students take one year of General Education Foundations (Composition and Mathematics courses) as well as two Foundation Studios in Architecture before applying for entry into the professional program. Additionally, the University requires that each College offer University-wide General Education courses. The College offers four such courses, INDV 102: American Design on the Land; TRAD 103: Architecture and Society; TRAD 104: Sonora, A Description of Place in Arid America; and PLN 256: Sustainable Cities and Societies. These courses, intended for non-majors, present the disciplines of the College to a wide audience and are one way of fulfilling our community-wide educational responsibility.

The University of Arizona has been particularly supportive of the accredited undergraduate degree offered by the School of Architecture. Within the context of a Research I Institution, rigorous, high quality undergraduate programs command special status within the University. This has been the case particularly with the B.Arch program. The program has garnered increased publicity and achieved increased visibility within the University context due to its effective combination of intensive instruction, advanced research on the part of both faculty members and students, and significant outreach to local communities. Many programs housed in the College, and to which the School of Architecture provides substantial financial and personnel support, demonstrate its involvement in the larger University research mission. These include the House Energy Doctor Program, the Roy P. Drachman Institute for Land and Regional Development Studies, and the Preservation Studies Program.

The College and the School of Architecture also assume a substantial portion of the outreach responsibility of the University. As a publicly funded, land grant Research I institution, the University of Arizona must pursue the application of knowledge and expertise from its research effort to communities throughout the state of Arizona. The Drachman Institute undertakes approximately 20-30 community projects each year. Its mission is to put knowledge to work on behalf of economically and socially disadvantaged communities. The Workshop is an outstanding mechanism for faculty member and students to assist communities, refine professional skills, develop a sense of social responsibility, and pursue applied research. In addition, the Drachman Design-Build Coalition, a subsidiary of the Drachman Institute run by Architecture faculty members, presents opportunities for design and construction experience focused to date on affordable housing, which when completed is offered to low-income families through local non-profit housing organizations like Habitat for Humanity and Chicanos por la Causa.

Finally, the School of Architecture and the City of Tucson collaborated for five years (2001-06) in a "Downtown Studio" which developed preliminary studies of urban design and architecture for the city's Río Nuevo Multipurpose Facilities District.

3.1.2 Architecture Education and the Students

An effective pedagogical setting for professional architectural education prepares the student for continuing professional and personal growth by arming him/her with the highest degree of curiosity, knowledge, and skill needed to solve environmental problems. We adhere to these goals and strive to instill in our students an attitude of inquiry, reflection, and innovation. Arizona graduates are well prepared to enter practice, to deal with the challenges and contradictions of a rapidly changing, pluralistic world, to draw from their broadly based general

education, and to grow through experience. The aspiration for lifelong learning is a recurring theme throughout the program of study, as is the demonstration of an ability to think critically. The College provides a variety of role models for the lifelong pursuit of knowledge.

The process of learning is stressed throughout the program. The University as well as the School of Architecture and its faculty are dedicated to helping students learn how to learn. Both the size of the program and the impressive physical facilities give students ample opportunity to regularly engage faculty in dialogue, formal and informal. The Academic Advisor and the Assistant Dean provide academic advising to help students successfully plan and complete their studies. This relationship begins with Freshman Orientation and continues through the final degree check. Over the years many students develop intensive relationships with faculty members not only in their coursework but also as Teaching or Research Assistants and discussion leaders, or as employees.

The University offers numerous excellent services to assist students in improving their study skills, time management, exam preparation, reading and writing. Among these are The University Learning Center, The Writing Center, The Freshman Center, and the Integrated Learning Center. The Career Center and ACES provide a variety of career and personal counseling services. In addition, students with learning or physical disabilities are extraordinarily well cared for through the Strategic Alternative Learning Center (SALT) and the Disability Resource Center (DRC), both of which operate efficiently through well-codified intervention procedures. These offices work closely with students and faculty to ensure optimal opportunities for student success.

The School has a long-standing internship program from which many students benefit. Meaningful learning experiences linking theory and practice in tangible ways are carefully crafted in positions throughout the state and increasingly outside of the state. Foreign study programs in Australia, Chile, Denmark, Italy, Mexico, and Spain extend the learning experience beyond our Arizona environs and stimulate long-term interest in living and practicing abroad. The School of Architecture has formal faculty and student exchange agreements with institutions in Mexico, Chile, Jordan, and Spain. International students in both the Undergraduate and Graduate programs are integrated into local student culture and in turn share their traditions, both personal and architectural, with their peers. Invited lecturers, studio critics, and research fellows from around the world provide broad insight into the profession.

The School is committed to a diverse student body. A pilot program for high school students interested in architecture is planned for summer 2009 and it is hoped that this will aid in identification and recruitment of prospective majors. In the latest year for which statistics are available (2008), one third of the professional students identify themselves as belonging to an ethnic minority and 43% of them are women. Those figures fluctuate from year to year but efforts to bring minority students into the program have had mixed success. The most common reason why these students choose to go elsewhere is that they have received larger scholarships than the UA is capable of awarding. For a few years (2005-07), the School had a full-time Recruitment Specialist but after that person left the job for family reasons, the line was not filled and it has now been lost to University budget cuts. The same is true of a .5 FTE Academic Advisor position. Advising is now handled by the Assistant Dean of the College together with the Program Coordinator.

The College's student services are now highlighted on two parts of the CALA website, one geared towards prospective students (http://cala.arizona.edu/propstud/prospectiveS.php), the other towards current students (http://cala.arizona.edu/currentstud/currentS.htm). The list of services and sources of information about all aspects of student life has been expanded over the past several years and contains links to a number of sites critical to the students' educational process and to their transition into the profession.

The program expects that students will be actively engaged in their own education. Student perspective is integrated into the decision-making process at all levels through student participation on virtually all College and School committees and through active student organizations where students are encouraged to demonstrate initiative and leadership. In particular, the UA chapter of the American Institute of Architecture Students has been revived in the last five years and is increasingly active. It hosts discussion forums with the dean of the College, lectures, lunches with visiting speakers, workshops, field trips, social events, and even sponsored the 2008 Fall West Quad Conference. In addition and more informally, smaller groups of students collaborate on initiatives such as sustainability education for local K-12 students.

The School provides students with many opportunities for independent study, research, and special projects. Efforts are made throughout the student's time here, whether in individual courses or at key career decision-making points, to assist him/her in the identification of individual skills, personal strengths, and appropriate areas of endeavor.

3.1.3 Architectural Education and Registration

The School of Architecture at the University of Arizona demonstrates considerable concern for the health, safety, and welfare of the public as a valued part of the profession's contract with society. Graduates of the program demonstrate competence in architectural design, technical systems, life-safety requirements, and awareness of urban and community issues within an historic or social context. This is accomplished through a well-balanced, carefully structured program that becomes increasingly demanding in the coverage of advanced skills and knowledge in the last two years of the curriculum and that is continually evolving to meet the needs of society and in response to changing models of architectural education. During the years around our last accreditation review, the School of Architecture significantly restructured its curriculum to better address these very issues. At that time, and in response the research mission of the University as a whole, the School made a considerable investment in enhancing the research of its faculty and students; more recently, we have reaffirmed the centrality of preparation for registration and professional practice. Coursework is conceived, developed, tested, and refined to ensure that students receive appropriate preparation and that they have the ability to grow with the demands of practice. Licensed faculty members, as well as practitioners serving in the roles of visiting and adjunct faculty, bring to the program their experience with the primary issues faced in professional practice; the School has sought to increase the percentage of its faculty that is licensed by making licensure a requirement for four of the five faculty positions for which we are searching in 2008-09. Moreover, an important upper-division studio (ARC 402, the Visitors Studio) specifically addresses pertinent contemporary issues in practice by inviting visiting distinguished practitioners to take turns teaching during the semester.

Approximately 50% of students, primarily from the B.Arch program (third through fifth year) but including a few from the post-professional M.Arch program, take the internship course (ARC 493) each year. This course facilitates their placement with local practices for up to twelve-fifteen hours/week, at least five of which must be in educational activities. In the context of this course, they are exposed to information about the national Intern Development Program and transition to licensed practice. Arizona state law allows graduates to sit for five of the nine sections of the registration examination upon graduation. The local AIA chapter in sponsoring review seminars, which help graduates and graduate interns prepare for these examinations. Many May graduates remain in Tucson through June to take the seminars. A substantial ratio of graduates from the School of Architecture eventually become registered and in recent years have found work in Arizona and in other states (mostly California, Oregon, and New York) with relative ease.

3.1.4 Architecture Education and the Profession

The School of Architecture embraces the profession as a critical partner in the education of the architect. This fundamental association of education and practice is one of the foundational principles for the creation of CALA and the linkage of the disciplines of Architecture, Landscape Architecture, and now again Planning within it.

The School endeavors to see that its graduates have a clear understanding of their professional and ethical responsibilities. Professionalism of the highest order is instilled throughout the curriculum. The School interacts with the local AIA chapter (the current Dean of the College is an ex-officio member of the chapter's Executive Committee, as two of the past three Deans have been) and with professional firms and our alumni through invitations to teach from time to time as adjunct faculty members and to participate in studio critiques, juries, lectures, and seminars. These activities facilitate student awareness of the relationship between acquired knowledge and professional application. Professionals, meanwhile, are drawn into an ongoing process that challenges their perspectives and contributions to the profession and the public. As a consequence of these linkages, our graduates are recognized as particularly well prepared to enter practice and particularly thoughtful in the realization of their design sensibilities.

The curriculum is structured to engage students at every point with the pressing issues confronting the profession of architecture today. Local and visiting practitioners are actively involved in teaching; a majority of the full-time faculty has critical practice experience; and many faculty members adopt community service projects in their studios. Virtually all students will have had hands-on building experience by the time they graduate; indeed, the Design-Build Studio (ARC 402 and ARC 451), typically focused on affordable housing, is an extremely popular option and almost always oversubscribed. Our clear, well-balanced curriculum offers students opportunities to probe the full range of technical, ethical, social, and environmental issues that confront architects.

Several external professional advisory bodies support the College and the School of Architecture. The local AIA chapter annually participates in the School's Design Excellence Program. This awards program involves the continuum of the discipline from student, to faculty members, to practitioner. Students produce projects as part of the studio process. Faculty members nominate the best projects for award consideration, and AIA members choose the award winners. The College and the AIA chapter share in funding the monetary awards.

The College Alumni Council has also consistently assisted graduates through mentoring and networking. The College's Dean's Advisory Board successfully engaged in a $2 million fundraising effort to supplement university funds for a building expansion, one that has enabled all the units of the College to come together under one roof. One of the fundamental premises for the establishment of CALA is that the professions are becoming increasingly collaborative and interdisciplinary. The organizational structure of the College was designed to manifest this reality while new cross-College curricular planning and the repeated, short-term hire of a "Visiting Professor in Practice" to provide exposure to Integrated Project Delivery are intended to reinforce an ethic of disciplinary integration from a student's first entry into the program through his or her graduation.

The College and the School of Architecture have assisted the University's Department of Campus and Facilities Planning in recommendations for professional representation on the University's Planning and Design Review Advisory Committee (PADRAC). The Dean, the Director of Landscape Architecture, and the Director of the Drachman Institute sit on this committee composed of UA and other local design professionals, including one alumnus of the School of Architecture.

From 2001 through 2006, the School of Architecture coordinated the University's formal agreement with the City of Tucson concerning the Río Nuevo Special District. A "Memorandum of Understanding" committed the College to a ten-year exploration of the potential of this major revitalization, although funding and personnel issues have truncated the endeavor. The School was responsible for identifying the University's intellectual resources and directing them toward innovative development in this downtown area. In this manner, the School helped to promote future professional opportunities for architects in Southern Arizona.

Finally, students and faculty strive to be role models for the professional by volunteering time to community service activities, through design and construction assistance as well as other contributions, thereby enhancing community respect for the entire profession. Our students are also active in AIAS. All of these opportunities foster our effort to produce students who are committed not only to practicing ethically but also to challenging the profession and their future colleagues to do likewise.

3.1.5 Architecture Education and Society

The School of Architecture, CALA, and the University of Arizona have a strong commitment to bringing the faculty and student resources of the School and College to the community. This coordinated effort serves several very important functions:

- It gives the students a real and positive connection to the communities and world around them. It helps them understand the diversity of communities and how valuable the skills they acquire in the School of Architecture are in solving the complex needs of our society and the world beyond. Without a strong outreach program, the connection to community is broken or false.
- In serving the communities of Tucson, Arizona, the Southwest, and Latin America, we bring to the residents of the state and the region an understanding of the skills that our profession represents. This helps establish strong professional connections to the populace as a whole, to local political bodies, and to the political and policy structure at the state and international levels.
- It fulfills the Land Grant Mission of the University of Arizona, which has a responsibility to bring its educational resources to serve the State of Arizona.

The School of Architecture accomplishes this community connection through a variety of means:

- The Roy P. Drachman Institute for Land and Regional Development Studies is the interdisciplinary public service/community outreach arm of CALA. Support funding is provided both by CALA and, for specific projects, by agencies such as the US Department of Housing and Urban Development, the City of Tucson, Habitat for Humanity, and the Urban Land Institute. In partnership with community organizations, students, faculty members, and staff of CALA apply their skills and knowledge in the areas of architecture, urban design, landscape architecture, and planning to community projects dealing with land use, transportation and corridor planning, neighborhood facilities and housing, and neighborhood-based economic development. The program focuses on the needs of lower-income communities, minority communities, and the Indian Nations. The Drachman Institute in fact integrates the three basic elements of the University's mission: teaching, research and service. It has significant pedagogical benefit as an effective venue for real world learning, practical scholarship, and cutting edge research. It also acts as a central intake body for public projects. The activities of the Workshop are delivered by means of several different mechanisms: regular course work, Capstone projects with community outreach components, coordinated outreach activities of individual faculty members, staff and students, and coordinated *pro bono* work by the architecture, planning, and landscape architecture professions. In the past five years, the

Drachman Institute and its predecessor the Community Planning and Design Workshop have completed over 100 community projects involving 50 students and 11 faculty members.

- Within the Drachman Institute, the Drachman Design-Build Coalition (DDBC) operates to promote and facilitate the design and construction of affordable housing for low-income and underserved populations in Arizona. The objectives of the Drachman Design Build Coalition are to provide architectural, landscape architecture, urban design and planning services for low-income populations; to provide quality design and construction for the segment of the population earning below 80% of the median income in Pima County; to establish a standard of design quality that encourages dignity and pride of ownership in dwellers; and to provide the faculty and staff of the College of Architecture and Landscape Architecture with opportunities for continuing education in order to promote personal and professional growth and development as it pertains to service delivery and public policy. After several years of successful student-designed and student-built projects, the Drachman Design-Build Coalition was formally incorporated as a non-profit organization receiving its Articles of Incorporation from the Arizona Corporation Commission in 2004. In 2006, DDBC obtained status as a 501c3 non-profit housing provider. DDBC is currently a licensed, fully bonded and fully insured residential general contactor. In May 2006, DDBC began the design process for two residences to be built in Barrio San Antonio. These residences are energy- and water-efficient homes, built with innovative construction techniques and monitored for energy and water use for one year after occupation. They are demonstration homes with the aim of educating the public as well as non–profit and for-profit builders on potential improvements in construction practices and design decisions. The research and design services involved in this community outreach project are funded by a grant from the City of Tucson entitled "The Civano Demonstration Project". The grant includes funds for the design of two more residences, which will be construction projects for DDBC in 2009 and 2010.
- The Rio Nuevo Multi-Purpose Facilities District (MFD)/Downtown Studio was established in 2001 to develop urban design studies of and alternative architectural proposals for the Rio Nuevo MFD project elements, while providing a meaningful educational experience to graduate and undergraduate students. The architectural studies produced between 2001 and 2006 were used as a resource for the Citizens Advisory Committee, the Rio Nuevo Multipurpose District Board, the Mayor, and the City Council of Tucson. The Rio Nuevo Multipurpose Facilities District provided financial support and public management of the process. This real world project involved a complex array of critical urban design issues and was an important pedagogical setting for students to understand the diverse demands of our profession.
- The Preservation activities of the College and the School of Architecture are a fundamental aspect of our outreach. Faculty and students of the School are extremely active on Historic Review Boards, in community preservation projects, presentations, publications, and community outreach projects.
- At the international level, students and faculty have strong connections to the diverse issues confronting our globe. With a particular Latin American flavor, the School has programs that facilitate and promote strong connections to Chile and Mexico, as well as Australia, Denmark, and Spain.

Students in the School of Architecture have access to a broad set of professional opportunities that expose them to the complex social, political, and economic world in which we live. By promoting service learning in the state and international exchange opportunities beyond Arizona, students get a first-hand understanding of the complexity and diversity of our world and of equity issues in a world of limited natural and economic resources. The School of Architecture seeks, in particular, to foster in its students an understanding of their social and environmental

responsibility. This is one of the things we feel we do best. Future architects must be prepared to participate responsibly in pluralistic cultural settings with finite resources. This can only be accomplished if we maintain a close relationship with the multiple societies that we serve, be they local or global.

3.2 Program Self-Assessment Procedures

3.2.1 Self-Assessment Process

The process for self-assessment is both continual and well developed within the School of Architecture and the College and occurs at many levels.

University Self-Aassessment Process

The University began a process of Academic Program Reviews over twenty years ago. The then College of Architecture, later CAPLA, and now CALA, was last reviewed in 2006. Academic Program Reviews include an internal assessment, review by a campus committee, and an external review. In addition, the University requires from all academic units the preparation of an Annual Report with up-dated mission statement, documentation of progress relative to the same, and a description of strengths and weaknesses of each unit. The Annual Reports are submitted to the Provost in January of each year.

CALA Self-Assessment Process

CALA participates in a University-wide program of "Strategic Planning" requiring the periodic submission of a Strategic Plan for the College and an updated Mission and Scope Statement. The 2008-13 Strategic Plan was developed by a committee of faculty members and administrators in Summer 2008 and was presented to the entire faculty and students for comments and suggestions early in the Fall 2008 semester. Each year, the Dean must submit an annual report outlining, among other things, strengths and weaknesses of the College. In preparing this report, the Dean reviews reports from each unit within the College, e.g., the Schools of Architecture and Landscape Architecture, the Drachman Institute, the Public Relations/Development Officer, the Library, etc. CALA assesses its progress at semi-annual planning retreats.

Due to the multidisciplinary structure of CALA, College committees have responsibilities for College-wide issues and have representation from members of both Schools. Current CALA committees are:

Administrative & Advisory:

Dean's Cabinet

Elected:

Elections Committee
Faculty Status Committee

Appointed:

Computing and Information Technology Committee
Laboratories and Space Committee
Lecture Series Committee
Staff Committee

Ad Hoc:

By Laws Committee
International Studies Committee

School of Architecture Self-Assessment Process
The School of Architecture produces an Annual Report describing its progress relative to its Strategic Plan and Mission Statement, and a comprehensive report on the status of the curriculum, faculty, finances, physical plant and overall description of its accomplishments, strengths and weaknesses. The report is transmitted to CALA's Dean, who then forwards the document to the Provost as a unified CALA Annual Report, as noted above. The faculty and administration of the School of Architecture have two annual retreats following CALA's retreats and intermittent other faculty meetings as issues demand.

The designation of faculty meetings has changed to that of School-wide meetings to include student representatives. Assessment of School's strengths, weaknesses, opportunities, needs, and priorities often occurs during these meetings. Reports from committees are also given. Issues related to the curriculum are brought to the faculty by the Curriculum and Standards Committee for discussion, debate, and approval.

Architecture faculty members participate fully and regularly in committees that continuously assist in the governance and self-assessment process. Standing committees are either elected or appointed. There are seven current standing committees, a substantial reduction from the eleven that existed in 1998. Composition and responsibilities of these committees are provided in Supplemental Information 7 Miscellaneous. Current School of Architecture committees are:

Elected:

Faculty Status Committee
Curriculum and Standards Committee
Graduate Executive Committee

Appointed:

Admissions and Recruitment Committee
Capstone Coordination Committee
Student Affairs Committee
Academic Events Committee

Ad Hoc:

Accreditation Committee
Faculty Search Committee

In the AY 2008-09 in particular, every effort has been made to reduce the number and size of committees, so that faculty members are not overburdened with committee service.

3.2.2 Progress relative to each dimension of the Program's Mission Statement

The study of architecture at Arizona, as stated in the mission of the university, bases its pedagogical practice on an elastic triad: *teaching, research,* and *service.* It is specifically grounded in the following propositions: 1) That the making of architecture is a sensible technical and aesthetic activity that serves the needs of human shelter; 2) That the construction of shelter is an imaginative cultural research that seeks to establish dwelling as a proper human aspiration to a graceful life; 3) That this educational and professional pursuit must be inflected by the identity of the Sonoran Desert, the geography of Arizona and the culture of the Southwest — promoting an intertwined *land ethic ~ aesthetic research* binary; and 4) That in a modern age of increased cultural exchange this education must become a portable global sensibility; however, its practice

must be observant of local traditions, tempered by material circumstances, and expressive of the ethos of *time* and *place*.

The Curriculum is the necessary pedagogical instrument that enables and articulates the accomplishment of the Program Mission. The faculty and the students must be considered as the effective agents in the definition, calibration, operation, and delivery of that instrument. Teaching/learning, research/scholarship, and service/outreach goals provide the basic structure of the Strategic Plan, with additional operational goals. Progress relative to these categories will be examined in the subsequent section, 3.2.3 Progress relative to each dimension of the Program's Strategic Plan.

Interpretation of progress relative to the first proposition entails a definition and articulation of human needs and shelter. The studio sequence provides a clear matrix that structures the response to this complex, yet fundamental question. The *architectural studios* are organized in a progressive thematic sequence that serves as a scaffold for the whole curriculum: foundation, ergonomics, programming, land ethic, tectonics, systems, urban form, research options, and capstone. We are satisfied with the conceptual clarity of the studio sequence, but we still need to improve the overall quality of studio production. Details regarding performance standards are provided in section 3.13 Student Performance Criteria. Details regarding allocation of resources to studio teaching are provided in the subsequent section, 3.2.3 Progress relative to each dimension of the Program's Strategic Plan.

Interpretation of progress relative to the second proposition involves an understanding and conceptual elaboration of the cultural research that uncovers dwelling and human aspirations. The *history and theory* sequence is the primary forum of presentation and discussion of theoretical and factual knowledge, examining architecture as a sensual and intelligent expression of culture: the analysis of functional and aesthetic continuities in buildings, cities, and landscapes and their revisions through time and space. Theoretical interest and discussion are not circumscribed by the contents and pedagogy of the history and theory courses; they are the continuous exchange that supports design decisions in the studio, they are supported strongly by the thematic of the lecture series, and they are self-evident in the discussions, presentations and exhibits of the work visiting critics.

Interpretation of progress relative to the third proposition requires a qualitative measure of our identification with the *genius loci* of the Sonoran Desert, the geography of Arizona and the culture of the Southwest. This identification should not be the superficial adoption of stylistic tendencies; it must be the ethical, technical and poetic analysis of the land and its attributes seen not merely as a resource but as the primary source of our creativity. This has been a unique feature of our program. We have continued to build upon it by establishing special courses and topical studios, by making joint faculty appointments and engaging in collaborative research with other disciplines, and by dedicating substantial time and attention to lectures and academic events addressing this theme. Yet, we are only at the beginning and still have miles to go.

Finally, interpretation of progress relative to the fourth proposition needs an assessment of how well do we prepare our graduates for the practice of architecture not only in Arizona, but also nationally and internationally. This could be obtained from a synthesis of the knowledge and skills provided in the three remaining Curriculum sequences: *technology, communications* and *practice*. Technology is now taught as an integrated comprehensive course that includes several modules of structures, materials and methods, and environmental controls; although the adjustment of sequencing of modules and faculty time has been a difficult one, there is a clear perception of a fundamental improvement in the judgment of both faculty and students. Communications is still a sequence that requires much refinement, particularly in the area of presentation skills and a more intelligent and creative use of the computer in the design process. The practice sequence has improved significantly in recent years, and is now developing in a

fundamentally sound direction in the hands of faculty with extensive practical experience and a hands-on approach in construction laboratories and design/build studios.

3.2.3 Progress relative to each dimension of the Program's Strategic Plan

A. TEACHING AND LEARNING GOALS

1. ***Make Research-based Learning the Standard***
   ACTIONS
   - The restructured curriculum promotes learning based on inquiry beginning with the Freshman Foundation. This is accomplished by means of complementary methods of teaching: didactic instruction (lectures), exercises and supervised demonstration (laboratories), and maieutic proposing and questioning (studios), as described by M.J. Adler in *The Paideia Proposal: An Educational Manifesto.*
   - The pedagogy of the graduate program is focused on methods grounded in questioning, discussion, and research. These methods are inculcated students through the following required courses: ARC 597a Research Methods, ARC 900 Graduate Research Studio, and ARC 909 or 910 – Graduate Project Report or Graduate Thesis.
   - Between 1998 and 2003, eleven tenure-tack or tenured new faculty members were hired. Between 2003 and 2008, two tenure-track new faculty members were hired. One criterion for selection of these teachers was that they all have a proven record or a clear disposition for a research-based pedagogy. The results so far have been quite fruitful in the generation of a positive movement in the intellectual and practical life of the school. The hires since the last accreditation are distributed as follows: one in building technologies and architectural design, one in foundation studios and architectural communication.
   - Since 2003, three Assistant Professors have been granted tenure and promoted to Associate Professor and two Associate Professors have been promoted to Professor, all on the basis of substantial research/creative activity informing strong teaching. Two faculty members have been denied tenure during that period.
   - In AY 2000-01 a Research Architect was hired with .47 FTE teaching responsibilities in Architecture and .53 FTE research and scholarship responsibilities at The Southwest Center (SWC).
   - In AY 2008-09, five faculty searches are underway, four of them for new tenure-track or tenured faculty members: three at the Assistant Professor level and one at the Associate Professor level to replace faculty members who have departed, and a fifth (non-tenure-track) for a Visiting Associate Professor or Professor. Two of the positions are in sustainable building technologies and architectural design, two are in computer modeling and architectural design, and one is in critical practice. The criteria for these searches include a clear agenda of research and/or creative activity and innovative pedagogy.

2. ***Establish Precise, Flexible, and Integrative Curricula***
   ACTIONS:
   - The curriculum of the 5-Year Bachelor of Architecture Program was completely restructured and approved by the faculty almost a decade ago in November 1999. That restructuring has resulted in exemplary clarity but the faculty continues to examine and refine the curriculum, especially in the Foundation and Capstone years.
   - The restructured curriculum, as identified in the Mission Statement, is an ensemble of four subject matters: *technology, history and theory, design communication*, and *critical practice*, all of which must be articulated and integrated as appropriate to each level of the *architectural studio* sequence.

- The total number of credits required to graduate is 167. The total number of elective credits is 68. Electives as a percentage of the total may be construed as an index of flexibility — which is 40.7%.
- The development of graphic and three-dimensional modeling skills is an integral condition of the foundation studio courses. In fact, ARC 101 and ARC102 belong to both the studio and the communications sequences. The linkage of graphic communication courses with studios occurs at other levels as well: between ARC 241 – Perspective and Computer Modeling and ARC 201 – Design I: Composition, and between ARC 341 – Color and Computer Modeling and ARC 302 – Design IV: Tectonics.
- Revisions are underway to seek further integration between ARC 441 – Construction Documents and ARC 459 – Professional Practice and the respective advanced studios.

3. ***Construct an Inquiry-based Freshman Foundation***

ACTIONS:

- The two required foundation studios, ARC 101 – Foundation I and ARC 102 – Foundation II, are aimed at developing visual, haptic, and cognitive understanding. This is fostered by means of freehand drawing, technical drawing, descriptive geometry, and constructive manipulation of materials and objects.
- The Foundation studio instructors are chosen from diverse but compatible backgrounds to ensure a diversity of methods of inquiry and expression. Typically, the Foundation faculty has included architects, industrial designers, and painters/sculptors, although there were more architects than usual in the AY 2008-09 mix.
- The student-teacher allocation in the foundation studios does not exceed a 25:1 ratio, in order to promote individual attention. In the AY 2008-09, the figures for ARC 101 were 170 students and 8 instructors; for ARC 102 there were 103 students and 6 instructors.
- The interdisciplinary mode of inquiry found in freshman Architecture classes is balanced by required University foundation courses (Mathematics, Physics + lab, and English) and general education electives (including those offered by faculty in the School of Architecture: TRAD 103 – Architecture & Society and TRAD 104 – Sonora).

4. ***Remove barriers to Interdisciplinary Education***

ACTIONS:

- An interest in critical regionalism revealing the physiography and culture of the region and integrating scientific, social, and artistic inquiry is awakened in TRAD 104 – Sonora — a successful university-wide General Education (Tier One) course.
- Following the pattern established in the Freshman Foundation, pedagogy in the professional phase of the curriculum is made interdisciplinary by means of a combination of required courses (in studio, technology, history/theory, design communication, and critical practice) and elective courses (General Education Tier I and Tier II, Architecture electives, and free electives).
- The required courses in the history/theory sequence are interdisciplinary in both content and structure. These are ARC 231 – History I, ARC 232 – History II, ARC 332 – History III, and ARC 471s – Theories and Principles of Urban Design. The elective theory/history courses further refine this interdisciplinary perspective; they are ARC 471/571 – Advanced Electives (6 current offerings).
- Lower- and upper-division credit distribution requires architecture students to take 15 credits of General Education Tier I electives and 9 credits of Tier II electives that provide other disciplinary perspectives. For Tier I, they must choose 2 courses each from Traditions and Cultures, Individuals and Societies, and 1 from Natural Sciences

(our Physics requirement satisfies 2nd NATS required of students in other disciplines); for Tier II, 1 course each from Individuals and Societies, Natural Sciences, and Humanities. Three units of Tier II Arts have been waived for Architecture students.

- The overall structure of the studios is a thematic one.
- An interdisciplinary intention is even more explicit in the upper-division studio settings, especially ARC 402/502 – Design VI: Options and ARC 451/551 – Design VII: Research Options. These studios typically incorporate interdisciplinary projects with dedicated studio sections involving faculty and students from Architecture, and Landscape Architecture. (Planning is not yet fully re-integrated since the Planning program just returned to CALA.)
- The capstone, which completes the studio sequence, promotes further interdisciplinary research by means of interdisciplinary projects and interdisciplinary advisory committees. ARC 498 Senior Capstone (Programming & Research) and ARC 452 Design VIII: Capstone Project have consistently involved faculty from other disciplines.
- Faculty searches currently underway seek to identify candidates who will contribute to curricular integration under the major umbrella of sustainability and who will be committed to interdisciplinary curricular collaboration across the College and beyond.

5. Culminate with a Capstone or Thesis Experience

ACTIONS:

- Faculty members typically present their practice and research interests to prospective Capstone students at the end of the fourth year or beginning of the fifth year. These presentations serve as a provocation or catalyst for students' capstone proposals; all full-time faculty members serve as chairs on an average of two capstone committees every year.
- All students advancing to fifth year are required to declare their interests in formal proposals; proposal outlines are reviewed either within the Capstone Preparation course (ARC 498) or, when it has not been offered, by the Capstone Coordination Committee.
- ARC 498 – Senior Capstone Preparation, in the fall, requires definition and refinement of the scope of the project, including architectural program, methods of research, modeling and experimental testing of theoretical and/or practical hypotheses, and selection of an advisory committee. In AY 2006-07 and 2007-08, a supplementary one-credit independent study (ARC 499) with one's Capstone Chair was required of all students. In AY 2008-09, an open elective relating to the student's Capstone interests was substituted for both ARC 498 and ARC 499.
- ARC 452 – Design VIII: Capstone Project, in the spring, requires project development, encouraging demonstration of students' capacity for scholarship, effective research, technical exploration, and aesthetic creativity.

B. RESEARCH AND SCHOLARSHIP GOALS

1. Promote Creativity

ACTIONS:

- The heuristic motto of Enrico Pestalozzi, "not teaching by saying but learning by doing," expresses the fundamental pedagogical intention of the restructured curriculum. Delivery of that curriculum is affected in three consistent pedagogical settings: *classrooms, laboratories,* and *studios.*
- The *classroom* is the forum of presentation and discussion of theoretical and factual knowledge in support of sensible design. The *laboratory* is the playhouse of empirical experimentation with materials, structures, and environmental performance and a place to test physical and virtual design hypotheses. The architectural *studio* is the

theater of imaginative propositions of design that synthesize empirical facts and heuristic theories.

- In addition to the 2 foundation studios, 8 professional phase studios, and 3 graduate studios, methods of empirical demonstration and testing are fundamental means of learning in the technology and practice sequences of the curriculum and are meant to be extended to the communications and theory/history sequences.
- Since 1998, an exhibition of student work entitled "Design Excellence" has been held every spring term, supported by juries and awards from the local AIA chapter, to promote and recognize standards of creative production.
- The following books were published by faculty members since the last accreditation in 2003: Ignacio San Martin, ed., book *Urban Design in Arid Regions: A selection of papers from the Arizona Symposium* (Tucson: University of Arizona Press, 2008); John Messina, *Alamos, Sonora: Architecture and Urbanism in the Dry Tropics* (Tucson: University of Arizona Press, 2008); Laura Hollengreen, ed., *Translatio, or the Transmission of Culture*, Proceedings of the 10th Annual Conference, Arizona Center for Medieval and Renaissance Studies (Turnhout, Belgium: Brepols, 2009); Christopher Domin and Joseph King, book *Paul Rudolph: The Florida Houses*, new edition with additional essay by the authors (Princeton: Princeton Architectural Press, April 2009).

2. ***Integrate Laboratories with Pedagogy***

ACTIONS:

- Students and faculty in the technology sequence are encouraged to test their design proposals by means of the following technical instruments: the Heliodon, the Visual Simulation Laboratory, the Energy Doctor, and Materials Shops.
- Special design studios and many of the courses listed just above (under point 1) that are based on experimental demonstration rely on creative use of technologies. Design/build studios and elective construction labs are regular collaborative options in ARC 402/502 – Design VI: Options, and ARC 451/551 – Design VII: Research Options. Recent projects designed and built in these studios include a rammed earth residence under the auspices of the Drachman Design-Build Coalition. It was funded by La Causa Construction, a subsidiary of Chicanos Por La Causa and completed in March 2006.
- The shop/instrument facilities are housed in a 7,000 net square foot interior space in the CALA building addition.
- Design studios and Building Technology courses throughout the curriculum are based on experimental demonstration and rely on creative use of technologies.

3. ***Engage in Interdisciplinary Work***

ACTIONS:

- The Drachman Institute serves as the primary means of interdisciplinary collaboration with the other two programs in the College. An interdisciplinary studio funded and taught by the Director of the Drachman (or his designate) is a regular component option of ARC 402/502. It is composed of an average of 15 students, including undergraduates from Architecture and graduates from Landscape Architecture.
- Another interdisciplinary studio, co-convened as LAR 611 and ARC 402, is being piloted in Spring 2009
- ARC 497/597v – Affordable Housing & Community Development is an important interdisciplinary course based primarily in Planning (it's a cross-listed course) but taken by many Architecture students.
- The School of Architecture fosters interdisciplinary research and scholarship with other University humanities programs through the position of a Research Architect, with .47FTE teaching responsibilities in Architecture and, through AY 2008-09, a .53FTE research and scholarship responsibilities at The Southwest Center (SWC).

- Some faculty members have formal affiliations with other units on campus, e.g., the Division of Art History within the School of Art and the Arizona Center for Judaic Studies.
- The Capstone Project is a University requirement for graduating seniors in most disciplines. Many fifth-year Architecture seniors have benefited from interdisciplinary Capstone Advisory Committees, which have included members from the following disciplines: Archeology, Astronomy, Computer Sciences, Geology, Hydrology, Material Sciences, Optics, and Physics.
- Collaboration at the departmental level is currently being explored with the School of Art, the School of Natural Resources, and the Departments of Civil Engineering and Aerospace & Mechanical Engineering.

4. ***Collaborate with Local Government, Professional Associations and Industry***
   ACTIONS:
   - The Río Nuevo/Downtown Studio was established, after a "Memorandum of Agreement" was signed between the City of Tucson and the University of Arizona, to develop urban design studies and alternative architectural proposals for the Río Nuevo MFD Project, a Tax Increment Financed, $750 million urban revitalization projected for 10 years. Although the studio was disbanded after five years and the faculty member who ran it has left the university, it provided a meaningful educational experience to graduate and undergraduate students while supplying architectural studies that were used as information and decision-making resources for the Citizens' Advisory Committee, the Mayor, and the City Council of Tucson.
   - Before the last accreditation, a full-time tenured Professor was hired (Fall 2001) to coordinate the Río Nuevo/Downtown Studio and a new Urban Design and Infrastructure graduate concentration area. He did so until his departure in Spring 2009.
   - At present, most collaborative opportunities involving local government occur under the auspices of the Drachman Institute. Most collaborative opportunities involving industry occur under the auspices of the Design and Energy Conservation and Emerging Material Technologies concentration areas in the M.Arch program.
   - Members of the local AIA Chapter contribute to endowed scholarships for Architecture students.

5. ***Promote International Exchange***
   ACTIONS:
   - Multiple programs for international exchange of faculty members and students exist and are described in section 3.7.5, Human Resource Development – Off Campus Programs. Many of these programs are in semi-arid regions similar to Tucson.
   - Since 2002, the Distinguished Visitors Studio, a fourth-year option, has brought eleven teachers and practitioners of international reputation from Australia, Chile, Germany, Norway, and Spain.
   - Since the last accreditation, the School has hosted two visiting scholars: one from Kyungnam University in South Korea in 2003-04 and one from Ain Shams University in Egypt in 2008-09 with probable extension for a second year.

C. SERVICE AND OUTREACH GOALS

1. ***Support Community Service***
   ACTIONS:
   - The Roy P. Drachman Insitute for is the public service and community outreach arm of CALA. Its mission is to put the technical skills and knowledge of the students, faculty members, and staff of CALA into service on behalf of economically and socially distressed communities and individuals throughout Tucson, Pima County,

and the State of Arizona. The CPDW helps fulfill the outreach mission of the University by making the resources of CALA available in the search for effective solutions to the needs of neighborhoods, non-profit corporations, cities, towns, and rural areas.

- In addition to a dedicated studio, ARC 402, taught by its Director or his designate, the Drachman Institute has had regular access to students and faculty working in ARC 498 – Senior Capstone and ARC 452 – Design VIII: Capstone Project. It also has ad-hoc access to students and faculty on a project-by-project basis through ARC 499 - Independent Study and ARC 497/597b – Special Projects in Architecture.
- The Drachman Institute has a prominent, visible home base, including studio space, adjacent to the T.M. Sundt Design Gallery on the first floor of the renovated west CALA building.
- Design/Build projects are also an effective opportunity for faculty and students to provide community service. Design/Build projects are carried out consistently every year through ARC 402/502 – Design VI, and through ARC 451/551 – Design VII: Research Options.

2. ***Collaborate with Professional and Governmental Organizations***

ACTIONS:

- While the Río Nuevo/Downtown Studio operated primarily on a contractual basis with the City of Tucson, its mission was fundamentally concerned with public service.
- ARC 461/561e – House Energy Doctor has been collaborating with local homeowners, energy companies, and developers for a number of years, analyzing houses for energy use and making recommendations for improved building performance.
- Some of the laboratories and the faculty in charge of them are collaborating with industry and local professional practices. For example, the Visualization & Simulation Lab has served as a technical consultant to local architectural practices on specific projects.

3. ***Promote Preservation of Natural and Cultural Resources***

ACTIONS:

- ARC 301 – Design III: A Land Ethic addresses principles of ecology, or conformity with nature, and is focused on a critical regionalism appropriate to the Sonoran Desert, the geography of Arizona, and the culture of the Southwest — promoting an intertwined *land ethic ~ aesthetic research* binary.
- A graduate program in Preservation Studies, involving the two Schools of CALA, was established in AY2000-01. Its purpose is to educate students in the preservation of the built and natural environment as part of a holistic conservation ethic.
- Architecture has supported the program in Preservation Studies through the joint appointment with The Southwest Center (SWC) of a Research Architect. While the part of the appointment sponsored by the Southwest Center will end after AY2008-090, due to budget constraints, the other part, located in the School of Architecture will continue. The current teaching associated with this position includes TRAD 104 – Sonora, a University-wide Tier One course focused on the physiography and culture of the region, and ARC 402/502 – Design VI or ARC 451/551 – Design VII: Research Options.

4. ***Support International Outreach***

ACTIONS:

- A new pilot interdisciplinary studio, co-convened as LAR 611 and ARC 402 in Spring 2009 and taught by a faculty member in Landscape Architecture who is also a

registered architect, has provided students the opportunity to put their design skills to work for a community in Fronteras, Sonora, Mexico.
- A symposium on "Urban Design in Arid Regions" was held in collaboration with the Pontificia Universidad Católica de Chile (PUC), Santiago. The first half took place in Santiago, Chile in May 2003, and the second half in Tucson in January 2005.

5. ***Engage in Continuing Education***
ACTIONS:
- The College's thematic lecture series was established in 1999 to serve as a forum that amplifies the common ground between the arts, humanities, and sciences within the diverse constituencies of the College, the University, and the community at large. The College's AIA liaison, John Messina, is helping the local AIA Chapter to establish a procedure to earn Continuing Education units for attendance at the lectures.
- Since Fall 2003, the College has presented 6 exhibitions of national and international interest in its T.M. Sundt Design Gallery — and 2 related book signings.

D. OPERATIONAL GOALS

1. ***Abide by Clear Governance***
ACTIONS:
- The "Bylaws and Constitution of the General Assembly of the College of Architecture, Planning, and Landscape Architecture of the University of Arizona," were presented to the faculty and approved in September 2002. This document sets forth the basic organization of the General Assembly of the College and the processes through and by which it shall function. The Bylaws were amended in the summer of 2003 to reflect the removal of the School of Planning and the name change to the College of Architecture and Landscape Architecture (CALA). They have yet to be revised again to reflect the re-introduction of Planning, within the School of Landscape Architecture, and other contemplated changes to the College, including a possible change of name.
- The School of Architecture shall adhere to these bylaws in all matters affecting the welfare of students, faculty, administrators, classified staff, and appointed personnel.
- The Faculty Status Committee of the School of Architecture undertaken review of the Promotion & Tenure criteria and process, with the aim of streamlining the description of them and bringing it into greater consistency with the description of College and University criteria and with criteria at other programs in Architecture around the nation. The Faculty Status Committee and the Director of Architecture conduct annual evaluations of all faculty members according to policies established by the University as mandated by the Arizona Board of Regents.

2. ***Change Faculty Reward Systems***
ACTIONS:
- Two recent promotion to Professor cases and three recent promotion to Associate Professor and tenure cases were articulated strongly on P&T criteria that recognize the integration of research and teaching as a valuable attribute and all three were completed successfully.
- Faculty members are encouraged to develop their research interests and promote the relationship between teaching and research in advanced electives; the ARC 461, 471, 481, and 497 series of courses are oriented towards theoretical and practical research.
- University- and School-wide teaching awards have been made to several faculty members in recognition for their teaching excellence. One faculty member won the coveted Five Star Faculty Award in 2005, an award based entirely on student nominations and votes.

- Since 2003, all faculty requests for attendance at regional, national, and international scholarly events have been approved and the majority supported financially.
- Since 2003, all faculty requests for attendance to national and international scholarly events were approved and most were supported financially. These activities are listed in section 3.7.9, Human Resource Development: Faculty Scholarship and Development Activity.

3. ***Promote Operational Economy***
   ACTIONS:
   - Standing committees meet regularly to satisfy University requirements, review pedagogical standards and means of delivery, and maintain a productive exchange among faculty and students. These committees are the following: Faculty Status, Curriculum & Standards, Capstone Coordination, Graduate Executive, Admissions and Recruitment, and Student Affairs. College-wide committees include the Dean's Cabinet, Faculty Status, Laboratories & Space Planning, Computing/Information Technology, and Lecture Series. In Ay 2008-09, every effort has been made to streamline committees in size and operation, in view of higher faculty teaching loads.
   - Ad-Hoc committees are put together for the duration of specific tasks as the need arises. The Faculty Search Committee, of varying composition, has been active for five of the past six years.

4. ***Cultivate a Sense of Community***
   ACTIONS:
   - In every academic year, faculty members and students complete many of the 20-30 public interest projects undertaken by the Drachman Institute.
   - The College lecture series has served as a forum for presentation of theories and practices from several University disciplines; it is also a means of exposing the work and innovations of the arts, humanities, and sciences to the community at large. With the exception of only one semester (Fall 2008), a lecture series has been offered every semester, typically with 5-6 speakers drawn from the best of the University and scholars and practitioners of national and international reputation. The lectures enjoy a regular attendance of 250+ from the College, the University, professional associations, and the public at large.

5. ***Maintain Good Housekeeping***
   ACTIONS:
   - The CALA addition and renovation of the original CALA building has provided more spacious, comfortable studios for Architecture students, suites of new offices to house faculty (most of whom shared offices at the time of the last accreditation), and enviable laboratory/shop facilities.

3.2.4 Faculty, Student and Alumni Assessments of Program's Overall Curriculum and Learning Context

Faculty

Each spring and fall, before classes begin, a faculty retreat is held. This is a working session for faculty and administrators to discuss broad issues of importance to the School of Architecture and the College and to set the course for the coming academic semester. The agenda for these retreats addresses important issues concerning the Program Mission and the Program Strategic Plan, the status of the Curriculum, faculty searches, faculty performance and needs, physical facilities, fiscal planning, announcements of enrichment opportunities, and programmatic changes.

In addition, student progress is assessed during regular meetings, so that any needed course modifications can be instituted. Faculty teams, or committees, follow these discussions with focus sessions on curriculum sequence coordination to implement changes and set pedagogic goals and methods, and course deadlines for each year.

It is the duty of the Curriculum and Standards Committee to monitor both the B.Arch and M.Arch programs. In preparation for accreditation, syllabi and student work for all required professional phase classes have been subjected to scrutiny. In addition, focus sessions involving faculty, students and administrators take place as necessary.

Students

The School of Architecture is very fortunate to be sufficiently small and cohesive for a constant exchange of ideas to take place among students, faculty, and administrators. There is a healthy sense of openness and sharing that allows student input to be integrated into class and studio structure and content in an ongoing informal way. In addition, student input and assessment is sought more formally through their participation in all College committees, faculty searches, and, when very specific evaluative information is being sought, through questionnaires and surveys.

Classroom evaluation of faculty performance is conducted for each class every semester through a standardized questionnaire, which is processed by the University. Students' evaluations of faculty performance are a subject of discussion between the Director and individual faculty members as part of the annual review process. They are also used to improve faculty teaching effectiveness and play a major role in part-time rehiring decisions. The calculation of salary enhancements for tenured/tenure track faculty also takes into account student evaluations of teaching performance.

With the sole exception of the Faculty Status Committee, student representatives sit on every School of Architecture committee, including the Faculty Search Committee as it is reformulated for specific searches. In this way as well as more informally, student opinion is regularly solicited; that opinion is accorded considerable value in School deliberations.

The Office of the Assistant Dean administers a number of questionnaires during the school year, the most comprehensive of which is the Exit Survey. This covers topics of Advising and Mentoring, Career Development Services, Respect & Discrimination, and Satisfaction with different aspects of their Education. Results are used to improve programs and to alert us to potential problems. When it became apparent that our Mentoring program was falling short of our expectations, a second questionnaire was constructed and administered to Faculty to ascertain what steps could be taken to get them more proactively involved in the program.

For seven years, the College sponsored "Connections," a job fair to which between 10 and 20 firms were invited. Based on surveys of students and recruiters about whether their expectations of the Fair were met, the Fair was discontinued in 2005 and the School's emphasis shifted to the development of web-based, interactive job search tools, listserv notifications of job-related opportunities, and skill-building workshops to help prepare students for independent job searches. Students are polled after each workshop to gauge its effectiveness and suggestions for improvement are solicited.

Alumni

A second survey was carried out relative to "Connections". Each firm in attendance was asked about their experiences and satisfaction with the job Fair. Also, since many attendees are UA alumni, they were asked to evaluate the students relative to their expectations for skill development and preparation for practice. If there was consensus about some deficiency, this was communicated to the Director and the Curriculum Committee.

Students who leave the program during or after the pre-professional year are surveyed. The University identifies all students who leave the U of A, regardless of whether they have earned a degree or not. The questionnaire, which was sent via email, inquires about expectations versus the reality of experience, degree of challenge and difficulty, satisfaction with studios and advising/mentoring, and reasons for the decision to leave architecture. The questionnaire may be followed up with telephone calls. (The University identifies all students who leave the UA as Alumni, regardless of whether they have earned a degree or not.)

All questionnaires and results will be made available to the Team during the site visit.

3.2.5 Program Strengths and Future Directions

Under the leadership of a new Dean and with a new Strategic Plan in place, the College and School have reinvigorated their commitment to interdisciplinary collaboration in all aspects of environmental design education and to preparation of students for critical, reflective professional practice. In the School of Architecture, an emphasis on research and experimentation has been facilitated by significant changes in the composition of the faculty, substantial capital investment, and curricular reform and refinement. Finally, we remain committed to a sensibility that is respectful of place while solicitous of dialogue across regional and national lines.

Interdisciplinary collaboration
The College has experienced several attempts at reorganization into a multidisciplinary academic unit. These efforts have been especially challenging. The recent reintroduction of Planning is cause for celebration and the College of Architecture and Landscape Architecture (CALA) goes forward with a sense of enormous promise. The education of architects at the University of Arizona has had a long tradition of preparing its graduates for positions of leadership in professional practice. Professional practice in a world of increasing complexity is by necessity interdisciplinary. Architecture and Landscape Architecture have had a long tradition of academic and professional association. Interdisciplinary studios and cross listing of courses sets the proper pedagogical disposition for experimental collaborative practice. The obvious benefits of working collaboratively are the enrichment of the methodology of research and definition of common projects, and the more holistic theoretical and practical quality of the design proposals.

Faculty and students are also remarkably eager to take advantage of the multiple collaborative opportunities found within the institutional framework of the University of Arizona, which has many of its science programs and some in the humanities ranked among the highest in the nation. Interdisciplinary collaboration with other programs is takes place by means of cross listing of courses, collaborative Capstone projects, joint research and service projects, and exploration of opportunities and degree programs offered jointly with other disciplines.

Two major instances of interdisciplinary collaboration are, however, coming to an end. One is the Downtown/Rio Nuevo Studio establish by a Memorandum of Agreement between the City of Tucson and the University of Arizona; the other is the joint appointment with The Southwest Center (TSC) of a Research Architect, with primary research responsibilities at TSC (51%) and teaching/research responsibilities at the School of Architecture (49%). These collaborations have been cut short by staffing and budget challenges, respectively.

Research and Experimentation
The Architecture Program at the University of Arizona has had a long tradition of being a practice-oriented program that fashioned a curriculum that emerged from the characteristics of place. Its sensitivity to the cultural and environmental history of its desert location has produced graduates prepared to apply the principles of theory and craft of a responsive regional architecture in a variety of settings.

The faculty recruited and promoted since 2003 are energized by a spirit of inquiry that goes beyond the history of the program. The deeper dimensions of the morphologies of this land and its cultures, as well as the environmental and social promise of new technologies have elicited a progressive change in the mental and practical disposition of the faculty.

The interest in research and experimentation are articulated with clarity and firmness in the Teaching and Learning, and Research and Scholarship goals of the School Strategic Plan. They are also a fundamental pedagogical *modus operandi*, recognizing that the delivery of the Curriculum is made effective and distributed in three consistent pedagogical settings: *classrooms, laboratories* and *studios*. The *classroom* is the forum of presentation and discussion of theoretical and factual knowledge in support of sensible design. The *laboratory* is the playhouse of empirical experimentation with materials, structures, environmental performance and testing of virtual and real hypotheses of design. The architectural *studio* is the theater of imaginative propositions of design and synthesis of empirical facts and heuristic theories.

We believe that our home base, the Sonoran Desert, is an incomparable natural and cultural laboratory that provides unique opportunities for an architectural education understood as experimental research addressing land ethic, social needs, technical and environmental factors, and aesthetic sensibility.

Selective International Exchange

We continue to view international exchange as a major strength. It is an inevitable experience in the changing environment of professional practice that is rapidly becoming more global. However, a fundamental caveat that we stress is that any action has local effects, at either its beginning or its end. Thus, we state in the Mission Statement, "... in a modern age of increased cultural exchange this education must become a portable global sensibility; however, its practice must be observant of local traditions, tempered by material circumstances, and expressive of the ethos of *time* and *place*."

This ethos of *time* and *place* has guided us in the pursuit of international partnerships with schools of Architecture that share physiographic, climatic, and/or cultural affinities with us. The relationship with Mexico will continue to be a cornerstone of our international pursuits. We share with it the extraordinary physiography of the Sonoran Desert and the common ethnicities of native desert settlements, in particular the Tohono O'odham Nation. We also share the same past of Spanish exploration and missionary settlements, and the current phenomena of borderlands with its broad spectrum of difficulties and opportunities.

In the last four years, we have pursued active exchanges with several other countries, including Australia, Chile, Norway, and Spain. These are described in section 3.7.5, Human Resource Development – Off Campus Programs.

Environmental Limitations

It may be paradoxical to claim that environmental limitations could be a possible source of strength. The ethical exercise of living in the dessert is that we must learn to share nature's intentions. It is a lesson in economy well inscribed in John C. Van Dyke's *The Desert: Further Studies in Natural Appearances*, "The life of the desert lives by adapting itself to the conditions of the desert...And so it happens that those things that can live in the desert become stamped after a time with a peculiar desert character...The struggle seems to develop in them special characteristics and make them, not different from their kind; but more positive, more insistent."

Disciplines that have achieved international excellence at the University of Arizona are those that have developed clear agendas of research and pedagogy regarding natural phenomena and others that focus on the cultural responses to the characteristics of the region. Such is the case of

astronomy, geology, hydrology, and optics in the natural sciences; and, it is also true of archeology, cultural anthropology, and ethnobotany in the social sciences and humanities.

We believe that the ethical, technical and aesthetic aspects of architectural education and practice can only gain clarity and strength in the crucible of the desert, in a condition of limited natural resources that is quickly becoming the global norm. We will continue looking for examples and seeking association with the disciplines that have profited from their understanding of the *genius loci*, being aware that there may be methodological differences as well as similarities.

The Architecture Program has had a long tradition of being a practice-oriented program that pursued the elusive philosophy of critical regionalism. Its positive regard for the clear limitations of its desert location– the scarcity of water, the abundance of light, and the importance of shade – has produced inventive craftsmen that have demonstrated their capacity for economy and grace in a variety of tasks. Their fame is growing in proportion to universal understanding of the power of limits.

3.3 Public Information

Since 1998, the University of Arizona's catalogue has been available only as a web-based publication at the following URL: http://catalog.arizona.edu/allcats.html

The College is described there as follows:

> The College of Architecture and Landscape Architecture prepares students to participate in the shaping of our built environment through an NAAB accredited five-year program. Organized with the design studio as the element of focus, the program is a meeting place for the arts and sciences. Students investigate both the relationships between human and natural forces and the relationships between materials and technologies.

That University website provides links to a detailed undergraduate program description on the College website (http://architecture.arizona.edu/). There one may find links to an introduction and mission statement, and to the NAAB statement regarding accreditation under the heading of Academic Programs. Under the heading of Admissions, there is an overview of the pre-professional and professional phases of the program and a description of admission requirements for freshmen and transfer students. Links to the five-year architecture curriculum are published here, as well as to information about elective requirements, required computer equipment, course offerings, and financial assistance.

The same information is contained in the brochure that is distributed to prospective undergraduate students and the one given to new undergraduates during orientation. An abbreviated program description is also contained in a brochure that is used for mass distribution at recruitment events on campus and elsewhere in the community (please refer to the appendix). All three of these brochures contain the NAAB statement regarding accreditation, as it appears in Appendix A-2 of the "Conditions and Reporting Requirements" document. All students in the B.Arch. program and all School of Architecture faculty members have received a copy of the *1998 Guide to Student Performance Criteria.* A copy of the handout is included in the appendix.

The University's electronic catalogue also provides a link to the M.Arch. program description on the Graduate College catalogue:

http://grad.arizona.edu/live/programs/description/14

Copies of all printed materials and promotional literature distributed to prospective students and the general public are included in Supplemental Information - section 4.7.

3.4 Social Equity

3.4.1 Faculty and Staff

It is the policy of The University of Arizona to provide equal employment opportunity without regard to race, color, religion, sex, national origin, age, disability, veteran's status, or sexual orientation.

The University of Arizona is also a Federal government contractor and, as such, has certain obligations to take affirmative action to ensure that its policies and practices are, in fact, non-discriminatory.

Therefore, it is our policy to take affirmative action to employ and advance in employment covered veterans, individuals with disabilities, women, and minorities. Where required by law, The University of Arizona has established goals by which we may measure our progress in employing persons based on individual ability and merit and in the numbers reasonably expected based on their availability.

The University of Arizona makes good faith efforts to reach covered veterans, individuals with disabilities, women, and minorities with information about our equal opportunity policy and, specifically, about employment opportunities at the University. This recruitment effort is particularly important for jobs where women or minorities are not currently participating in the number expected by their availability. It is the policy of The University of Arizona to invite all interested persons, both from outside the University and from within the University community, to apply for such opportunities.

As a matter of law and as a matter of University policy, selection for opportunities for hire, promotion, transfer, or training, as well as decisions regarding demotion, termination, lay-off, or other terms and conditions of employment shall occur without regard to race, color, religion, sex, national origin, or other prohibited basis.

The University of Arizona has formally assigned the responsibilities contained in its written Affirmative Action Plans for Women and Minorities and for Employees with Disabilities, Disabled Veterans and Veterans of the Vietnam Era to each vice president, dean, director, department head, manager, and supervisor, and the University does insist that these employees adhere to the commitment made in each Affirmative Action Plan.

- University of Arizona Human Resource Policy

A wide number of internal and external studies have found the University of Arizona wanting in many areas related to diversity. As a result, a number of new initiatives are being adopted that will assist all Colleges in their quest to improve the representation of minorities among student, faculty, and staff.

In combination with faculty/staff groups on campus, the offices of the Vice Provost and Human Resources provide workshops and guidelines for search committees in order to help them attract candidate pools that include qualified women and members of under-represented groups. They team up with the Office of Equal Opportunity and the UA Attorney's Office to develop useful resources and search process protocols. The goal is to distribute written guidelines for search committees specifically aimed at creating a more diverse faculty.

The School of Architecture does not currently have published guidelines for increasing the diversity of those it hires, but it is fully engaged in the University's efforts. In all recent and

current searches, the search committee has made a conscious effort to attract, consider, and interview minority and women candidates, whenever feasible. The School's success in recruiting and hiring Hispanic males has been greater than with other under-represented groups.

A second major effort on campus is implementation of the Action Agenda of The Millennium Project whose aim is *"to enhance the development of an institutional culture... that fosters productivity, creativity and academic excellence. The Project supports the University of Arizona's goal of achieving an enabling academic climate that will allow faculty, staff, and students to be productive and unhindered by any impediments due to consideration of gender or race/ethnicity."*

The Assistant Dean sat on the Millennium Report Oversight Committee until 2004. Each College was directed to establish a College Millenium Committee which was to be charged with reviewing the Millennium Report Action Agenda recommendation; prioritizing the recommendation's goals according to college needs and challenges; specifying goals and actions that require policy changes and publicizing existing policies designed to promote equity; and designating individuals and offices at each level to be responsible for implementation of policy changes or adjustments of college practices. This committee has never materialized within CALA, however; indeed, adoption of the Millenium Report Action Agenda has been uneven across the entire campus.

During fall 2001, a Staff Advisory committee was formed. Members of this committee sit on College committees (e.g., the Building committee, faculty search committees, etc.) in order to provide input and feedback and to serve as a liaison so that staff members are always up-to-date on recent developments within the College.

The University of Arizona is an institution committed to shared governance. All decisions made by committees, with the exception of faculty status/promotion recommendations, must be ratified by the faculty as a whole.

4.2 Students

Historically, the School of Architecture has been viewed as a supportive educational environment for under-represented students. Our commitment to diversity is total and simple: the School of Architecture strives in every way to eliminate bias and ensure equity.

An important opportunity for the School lies in its proximity to Latin America. In a strict sense, Tucson is part of the Latin American community. The School of Architecture has set a goal of becoming the premier U.S. program with ties to Latin America. We strive to create a rich and supportive intellectual environment that will attract a diverse population of students, faculty, and staff who are committed to being engaged citizens of this hemisphere. Our programs are rooted in the multi-layered context of place, culture, history, and identity. It is this local relevance that attracts an increasingly diverse population. We have become known by our actions in work that is often conducted with under-represented and economically distressed peoples and communities.

For two years (2005-07), recruitment efforts on behalf of the School were aided by a full-time Recruitment Specialist. However, that position has been eliminated due to university budget cuts.

Part of the challenge for the School of Architecture is to retain minority students once they have been admitted to the program. Because of the competitive nature of admission to the professional phase and the fact that many resident minority students may not be as well prepared in high school as other applicants, the diversity of students in the professional phase is

considerably less than it is in the freshman class. However, it seems to be growing, with 34% of our professional phase students identifying themselves as minority students. Even so, we are not always able to retain them at the same level of representation as among the pre-professional students. The School has lost its .5 FTE Academic Advisor to budget cuts, which hampers our efforts to provide timely assistance to these students, when necessary.

The percentage of women being admitted and retained has fluctuated significantly in recent years, between 27% and 50% of the class entering the professional program. The current second year class is 31% female.

Advancements in technology are facilitating the successful pursuit of architecture degrees by physically handicapped students. The School of Architecture currently has two quadriplegic students, one each in second- and third-year classes. Although several of our classes are laboratory based and entail working with heavy materials, the fact that most projects are accomplished by teams of students allows our differently abled students to play an active role in the completion of those projects.

Each year, the School administers an Exit Survey to graduating seniors in which it inquires about perceived discrimination on the basis of ethnicity, gender, and sexual preference. Over the past several years, students have reported virtually none.

Each year, the School of Architecture offers approximately $50,000 in scholarship monies to students. Several of these scholarships are reserved for Arizona residents, one is specifically for students of Hispanic origin, and one is for women. The only group that does not have an equal opportunity to share in these financial resources is our small number of international students. Most scholarships are predicated on financial need, which the University assesses from the FAFSA (Free Application for Federal Student Aid). International students are not permitted to file a FAFSA and therefore are not eligible for need-based scholarships. We are currently working with the University of Arizona Foundation to rewrite the template for our scholarships so that it reads, "financial need preferred," which would allow us more flexibility in making our awards.

We are pleased to report that the local AIAS chapter has been revived since our last accreditation and has been operating vigorously and visibly to attract all students and to provide interesting, accessible programming. AIAS officers and other members enjoyed open, untrammeled access to School and College administrators and have been vocal participants in matters of School governance. In addition, there are appointed student representatives on virtually every School committee (with the exception of the Faculty Status Committee).

3.5 Studio Culture

The School of Architecture affirms the studio as the central learning environment of its professional design education. In response to new NAAB directives, the School began the process of drafting a Studio Culture Policy in Spring 2008. For the sake of comparison and to provide a point of departure, faculty members compiled a dossier of such policies from other accredited programs. A draft policy for the University of Arizona School of Architecture was brought forward to Fall 2008 for broad discussion within the Curriculum and Standards Committee, most of whose members are elected to represent the individual curriculum streams. After revision, the document then went to student representatives within the local chapter of AIAS. They provided alternative language in some passages, asked for clarification or further detail in other passages, and drafted proposed additional language of their own. The document returned to faculty representatives for review, at which point student concerns were addressed. The text was reorganized, streamlined, and provided with appendixes to house the texts of related existing university and college policies that are mentioned but not quoted in the body of the text. A final meeting of the Curriculum and Standards Committee with the current President of AIAS allowed all remaining comments to be voiced. The proposed Studio Culture Policy was then presented to faculty members at a faculty meeting for discussion and vote in early March 2009. It was presented simultaneously but separately to students in the professional phase of the B.Arch program in class-year meetings at which votes were taken ratify was taken. Both students and faculty both overwhelmingly approved the policy.

3.6 Human Resources

3.6.1 Students

The University of Arizona is committed to attracting, educating, and graduating a diverse student body. As a Land Grant Institution, its primary responsibility is to Arizona residents. The School of Architecture supports these priorities and attempts to attract the top high school graduates, Community College transfers, and returning adult students from around the state. (We require a minimum SAT score of 1120 and a minimum GPA of 3.0.) Special effort is made to recruit and retain under-represented students. The degree to which we are successful in this task is reflected in the demographics of students who are admitted, through a very competitive process, to the professional phase of our program.

	Class of 2007 Admitted 8/03*	Class 0f 2008 Admitted 8/04*	Class of 2009 Admitted 8/05*	Class of 2010 Admitted 8/06*	Class of 2011 Admitted 8/07*	Class of 2012 Admitted 8/08*
White	35 (67.3%)	35 (72.9%)	37 (70.7%)	34 (70.7%)	40 (66.7%)	40 (65.6%)
Hispanic	7 (17.3%)	12 (25.0%)	8 (15.4%)	7 (14.6%)	11 (18.3%)	10 (16.4%)
Asian American	3 (5.8%)	0	5 (9.6%)	3 (6.3%)	4 (6.7%)	7 (11.5%)
Black	1 (1.9%)	0	1 (1.9%)	0	2 (3.3%)	0
Native American	1 (1.9%)	0	0	1 (2.1%)	0	0
International	3 (5.8%)	1 (2.1%)	1 (1.9%)	3 (6.3%)	3 (5.0%)	4 (6.5%)
Unspecified	-----					
TOTAL	52 (100%)	48 (100%)	52 (100%)	48 (100%)	60 (100%)	61 (100%)
Male	29 (55.8%)	35 (72.9%)	26 (50%)	27 (56.3%)	34 (56.7%)	42 (68.9%)
Female	23 (44.2%)	13 (27.1%)	26 (50%)	21 (43.7%)	26 (43.3%)	19 (31.1%)
Non-resident	14 (27%)	13 (27%)	13 (25%)	12 (25%)	22 (36.7%)	20 (32.8%)

*Admission is to professional phase

The College has long been fortunate to be able to attract qualified applicants from across the country as well. The non-resident student population has grown over the past few years and now comprises approximately 35% of our student body, with representatives from every region of the United States and a number of foreign countries. States contributing the most applicants are Arizona, California, Illinois, New York, and New Jersey. The College continues to attract significant numbers of older, mature students. In an average first-year class of 160, many students have previously completed two or more years of higher education.

3.6.2 Faculty

The faculty of the School of Architecture is a group representing diverse places of origin, educational experiences, professional practice accomplishments, and specialties. This diversity of background, point of view, and experience exemplifies the many roles and opportunities that are possible in a culturally responsible global practice. The faculty is inspired by and responsible to the tripartite mission of the University of Arizona: teaching, research/practice, and community service. As a consequence, many faculty members integrate their teaching with hands-on work via community-based design/build projects and many have received awards for their professional practice. A particular emphasis on the laboratory, empirical twin to the design studio, facilitates a practical and experimental pedagogy.

In AY2008-2009, there are 13 full-time and 15 part-time faculty members. Since the last accreditation visit in Fall 2003, three full-time faculty members and one half-time faculty member have retired and six other full-time faculty members have departed; these losses have been replaced by only four new full-time hires, resulting in a net loss of 5.5 positions. However, searches are underway this year for four tenure-track positions to address the shrinkage of the faculty.

Of the current faculty, most have significant experience in professional practice, and some have extensive backgrounds in practice. Many faculty members have had their projects published and have themselves published articles or books. Nearly all have traveled or studied abroad and some have worked and taught in foreign countries. Most faculty members, including those recently hired, have significant teaching experience. With the exception of one historian, most are registered architects or engineers. Terminal degrees were earned at a representative cross section of institutions of higher learning: Arizona, California -Berkeley, Georgia Tech, Michigan, Pennsylvania, Princeton, and Texas. Three faculty members have the Ph.D. or other doctoral degree.

At the beginning of Spring 2008, the full-time faculty comprised 4 full professors, 2 associate professors, 1 assistant professor, and 2 lecturers. Greater representation of women and greater ethnic diversity continue to be goals for our faculty hires. The current faculty composition, senior and junior, has prepared the School for a period of continuity and growth, tradition and experimentation.

The part-time faculty is composed primarily of practicing professionals, many of whom are alumni of the College. Their teaching responsibilities include studio instruction, specialized courses, guest lectures, and guest reviews of student work. Other local architects help to introduce students to the diversity of work experiences available to them after graduation by opening their offices and construction sites to student field visits, as well as by hosting student interns.

On average, most full-time faculty members divide their time as follows: 60% teaching, 20% research/creative activity, 20% service. This percentage distribution of effort has not always been codified in the past but Dean Cervelli has mandated a new annual Distribution of Effort agreement for all CALA faculty members. Most adjunct faculty members are hired for teaching only, which thus constitutes 100% of their work within the School. In the Foundation Studios (ARC 101 and 102), the maximum faculty-student ratio is 1: 25 but attrition during the Fall semester tends to bring the figure down to 1: 20 by the beginning of the Spring and ARC 102, and it continues to decline during that semester. In the professional phase studios, the ratio was a maximum 1: 12 for many years; however, growth in enrollment—with an entering class of 60 rather than 48—has brought it to a maximum of 1:15, a figure that has already declined to 1:13 for the first entering class of 60.

Procedures for faculty evaluation are outlined in the Program Self-assessment section and include student, peer, and administrative evaluation. Promotion and Tenure is a rigorous process of review by the Faculty Status Committee, the Director of the School, the Dean of the College, a University Committee, and the Provost. Emerging national and international recognition is the standard for tenure and promotion to associate professor. Clearly established national recognition is mandatory for promotion to full professor. New faculty are selected through national searches conducted by specifically appointed committees composed of faculty and students, with an average of three candidates brought to campus for interviews and presentations relating to each position. The Director makes final selections after receiving recommendations from the Search Committee as well as other faculty and students.

Faculty résumés, which include teaching and other responsibilities for each individual, are contained in 4.4, Supplemental Information: Faculty Resumes.

3.6.3 Administration

At the beginning of AY 2003-04, with the (temporary) loss of Planning (described in section 1.2, Institutional Mission, above), the College was restructured from three units plus a research/outreach arm to two units plus a research/outreach arm and renamed College of Architecture and Landscape Architecture (CALA). CALA is composed of two schools, each with its own Director: the School of Architecture and the School of Landscape Architecture. The current Director, Laura H. Hollengreen, occupies the position in an interim capacity only, as described in section 1.3, Program History. With the re-introduction of Planning into the College in Fall 2008, the School of Landscape Architecture has become the School of Landscape Architecture and Planning. Anther component of the College is the Roy P. Drachman Institute for Land and Regional Development Studies, with its own Director.

The College administration is currently structured with a Dean, an Associate Dean, and an Assistant Dean. The current Dean, Janice Cervelli, took office in July 2008.

Each year the faculty and staff of the College elect a Chair who calls and conducts meetings of the General Assembly of the College and serves as a liaison between the administration and the faculty. The Director of the School of Architecture calls faculty meetings of the Architecture faculty.

The Dean of the College has overall responsibility for the College and its programs. The Dean carries out extensive external development including fund raising, represents the College to the University administration through the Provost and the Council of Deans, communicates with other deans on campus, oversees the programs of the College, conducts annual faculty evaluations and salary reviews, and regularly meets with faculty and students. In consultation with the other administrators of the College and with faculty members, the Dean develops the Mission Statement and the Strategic Plan. Past Deans with a disciplinary affiliation in Architecture have also taught in the School of Architecture and one held a joint appointment in the School of Planning.

The Associate Dean, R. Brooks Jeffery, works closely with the faculty and the Dean on interdisciplinary collaboration and joint degree programs, faculty development, College facilities, alumni and public relations, and the College publication program. The Associate Dean also represents the College within the University. After the spring 2002 retirement of the faculty member serving as Associate Dean, the position was vacated due to budgetary rescissions. The administrative functions of the position were shared among other College administrators. The position was reinstated in 2004, but beginning in July 2009 it will be reduced from full-time to half-time.

The Assistant Dean, Susan K. E. Moody, is responsible for many of the day-to-day operations of the five-year B.Arch. program and has partial responsibility for the joint B.Arch/M.Arch. program. The Assistant Dean oversees admissions, transfers, advising, scholarships, summer school, the course catalog, the College brochure, recruitment, and retention. The Assistant Dean also meets regularly with students and faculty and works with the Director and the Curriculum Committee on proposed course or curriculum changes. The Assistant Dean represents the College on numerous University committees. The position will be eliminated at the end of the current fiscal year, due to budget constraints, and the current Assistant Dean is planning to retire.

The Director of the School of Architecture has overall responsibility for the School and its programs and is responsible for annual faculty evaluation. In collaboration with the faculty, the

Director is responsible for academic leadership, development, and refinement of the Program Mission Statement and the Program Strategic Plan, administration of personnel, external relations with professional organizations and the community, curricular innovation and effectiveness, mentorship of students, faculty recruitment and development, budgetary administration and review of salaries, and representation of the School within the College and the University. The Director meets regularly with faculty and students and with the Dean on staffing and other issues related to the School and the College. The Director carries out a personal research and scholarship agenda and teaches two courses per academic year.

The Director of the Graduate Architecture Program had overall responsibility for the graduate program until 2002. This position was phased out after the spring 2002 retirement of the faculty member serving in it. The Director of the School now carries the responsibilities of the position, delegating some administrative functions to the Program Coordinator and the coordinators of the graduate concentration areas (Design and Energy Conservation, Emerging Material Technologies, Urban Design and Infrastructure, and Preservation Studies). The Program Coordinator and concentration area coordinators together with two other elected faculty members comprise a new Graduate Executive Committee that has been in operation since fall 2002, meeting regularly with the Director of Architecture on matters including recruitment, admissions, and the awarding of teaching assistantships, ensuring that students develop acceptable plans of study and research agendas in their respective areas.
As mentioned above, the Roy P. Drachman Institute for Land and Regional Development Studies has a Director, Charles (Corky) M. Poster, who is responsible for managing the operations of that unit.

5.4 Staff and Academic Professionals

We are fortunate to have an excellent, hard working, and dedicated staff. Positions and responsibilities are as follows:

College Staff

The Dean's Executive Assistant supervises other office staff, keeps the Dean's calendar, reviews and interprets college compliance with University of Arizona rules and regulations, responds to upper administration and public requests for information, and reviews and edits correspondence, newsletters, etc.

The Senior Business Manager is responsible for financial planning and management, accounting, and record keeping, and advises the Dean and School Directors on financial matters and compliance with University and government rules and regulations relating to finance.

The Director of Development coordinates fund raising, alumni relations, grant writing, and meetings and other activities of the advisory board. The Director maintains alumni and public relations databases, plans and coordinates special events and ceremonies, assists with lectures and exhibits, promotes the College through public relations efforts, and edits and publishes the College's newsletter and news releases.

The Information Technology Coordinator maintains hardware and software infrastructure in the computer lab, classrooms, and studios, manages the College's local network and servers, web sites, and the interface with the University-wide network, and assists faculty, staff, and students with computer-related problems, questions, and projects.

The Materials Lab Coordinator manages the material fabrication shops, collaborates with faculty and students in fabrication projects, supervises the maintenance, calibration, repair, and fabrication of components and assemblies of research and laboratory equipment, and maintains

regular inventories and requisitions of supplies and equipment.

The half-time Visual Resources Assistant manages acquisition, maintenance, access, circulation and reference services for the slide collection, videotape collection, and Imagen website.

The Administrative Assistant provides secretarial support for faculty and serves as College receptionist.

School of Architecture Staff
The Administrative Assistant/Architecture Director's Assistant keeps the Director's calendar, contributes to the execution of promotion and tenure reviews, annual faculty evaluations, faculty searches, and curriculum revision and updating, takes minutes at faculty meetings, manages the front office, and completes teaching load reports.

The Administrative Assistant/Architecture Graduate Program Coordinator/Academic Advisor keeps graduate admission records and progress reports, maintains graduate student files, assists with recruiting information and publications. In addition, this person provides academic advising and counseling for both the M.Arch and the B. Arch programs and the joint B.Arch/M.Arch program, monitoring students' academic progress, coordinating recruitment, retention, and career placement activities, providing statistical data as needed, and serving on College committees.

Academic Professionals
The Preservation Studies Coordinator administers the College's interdisciplinary Preservation Studies graduate certificate program, including curriculum development, student recruitment/mentorship and fundraising activities. Related teaching responsibilities include up to three lecture courses per year as well as graduate thesis and undergraduate capstone advising. Related curatorial duties include management of the Arizona Architectural Archives.

3.7 Human Resource Development

3.7.1 Policies Regarding Human Resource Development

Detailed information regarding faculty and appointed personnel can be found in the Arizona Board of Regents (ABOR) Manual at

http://www.abor.asu.edu/1_the_regents/policymanual/chap6/index.htm

and the University Handbook for Appointed Personnel (UHAP) at

http://w3.arizona.edu/~uhap/chap3.html

Specific policies pertaining to the College and the School of Architecture can be found in the "Bylaws and Constitution of the General Assembly of the College of Architecture and Landscape Architecture of the University of Arizona."

3.7.2 Guest Lecturers and Visiting Critics

Fall 2003
Richard Shelton, poet, University of Arizona
Howard Werner, sculptor, Scottsdale, Arizona
Artengo-Menis-Pastrana, architects, Tenerife, Spain
Mia Lehrer, landscape architect, Mia Lehrer and Associates
John Patkau, architect, Patkau Architects Inc.

Spring 2004
Steve Badanes, architect, University of Washington
Scott Momaday, writer, University of Arizona
Robert Marino, architect, Columbia University
Iñaki Ábalos, architect, Abalos & Herreras Arquitects, Madrid, Spain
Peter Stutchbury, architect, University of New Castle, Sydney, Australia
Fritz Auer, architect, Auer + Weber – Architekten, Stuttgart, Germany

Fall 2004
Manuel Aires Mateus, architect, Aires Mateus and Associates, Portugal
Dennis Shelden, geometer, Gehry Technologies, Llc
Ofelia Zepeda, poet, University of Arizona
Stanford Anderson, architect, Massachusetts Institute of Technology
Nicholas Goldsmith, architect, FTL Design Engineering Studio

Spring 2005
Rick Joy, architect, Rick Joy Architects
Bryan Mackay-Lyons, architect, Mackay-Lyons Sweetapple Architects, Ltd., Canada
Einar Jarmund, architect, Jarmund/Vogsnaes AS Arkitektr, Oslo, Norway
Peter Testa, architect, Testa – Weiser, Inc.
Jan Söderlund, architect, Helsinki, Finland
Jörg Schlaich, engineer, Stuttgart, Germany

Fall 2005
Raymond Goldstein, physicist, University of Arizona
Alison Hawthorne Deming, poet, University of Arizona
Werner Sobek, architect/engineer, Werner Sobek Stuttgart GmbH & Co. KG
Klaus Daniels, architect, HL Technik, Germany
Glenn Murcutt, architect, Australia

Spring 2006
Richard Healey, philosopher, University of Arizona
Peter Rich, architect, University of Wiswatersrand, South Africa
Florian Musso, architect, Switzerland
René Davids, architect, University of California, Berkeley
Steve Farneth, architect, Architectural Resources Group
Juhani Pallasmaa, architect, Juhani Pallasmaa Architects, Finland
Pablo Allard, architect, Pontificia Universidad Católica de Chile

Fall 2006
Teddy Cruz, architect, Estudio Teddy Cruz
Leo Marmol, architect, Marmol/Radziner Associates
Mike Houck, urban ecologist, Portland State University
Odile Decq., architect, Odile Decq/Benoit Cornette Architects
Ann Moss – Jerry Shapins, landscape architects, Shapins Associates
Jennifer Luce, architect, Luce Et Studio

Spring 2007
Les Wallach, Line and Space, Llc
Rob Paulus, Rob Paulus Architect, ltd.
Peter Testa, Testa – Weiser, Inc.
Luis Ibarra, Ibarrarosano Design Architects
Topher Delaney, Seam Studios

Fall 2007
Suzanne Johnson, filmmaker, founder and executive director, Gnosis, Ltd.
Cara Lee, architect, Lee – Mundwiler Architects
Robert Harris, architect, Lake/Flato Architects
Jonathan Knowles, architect, Briggs Knowles A+D
Jane Weinzapfel, architect, Leers Weinzapfel Associates
Chuck Knight, architect, Perkins + Will

Spring 2008
Rick Joy, architect, Rick Joy Architects
Victoria Ballard Bell, architect, Ballard Bell Architecture
Jack DeBartolo, Jr., Jack DeBartolo III + William Bruder, architects
Edward Allen, architect
Tom Kundig, architect, Olson Sunberg Kundig Allen Architects

Fall 2008
None

Spring 2009
Margaret Griffin, Griffin Enright Architects
Paul Dolinsky, Director, National Park Service's Historic American Landscapes Survey (HALS) Program
John Peterson, Public Architecture
William Menking, Founder, Architects' Newspaper + Commissioner/Co-curator, US Pavilion 2008 Venice Biennale
Mark Wilson, Associate Professor, Urban & Regional Planning/Geography, Michigan State University; Associate Director, School of Planning, Design and Construction
David Lewis, Lewis Tsurumaki Lewis
Allen Eskew, Eskew, Dumez + Ripple

Bill Wenk, Founder, Wenk Associates, Planners – Landscape Architects

3.7.3 Distinguished Visitors' Studio

Spring '04 (Hamman, coordinator)

January 29-February 21	Andrés Cánovas/ Nicolás Maruri	ETSAM, Spain
February 19-March 13	Robert Marino	Columbia Univ.
March 20-April 12	José Rosas	PUC, Chile
April 10-May 1	Peter Stutchbury	Univ. of Newcastle

Spring '05: *Materials* (Vollen, coordinator)

January 17-February 11	Ginés Garrido	ETSAM, Spain
February 14-March 11	Einar Jarmund	Oslo Sch. of Arch. & Design
March 21-April 1	Sebastián Gray	PUC, Chile
April 4-April 29	Jan Söderlund	Technical Univ. of Helsinki

Spring '06: *Urban Landscape Infrastructure* (San Martin, coordinator)

January 26-February 18	Peter Rich	University of Witwatersrand
February 16-March11	Florian Musso	TU/München,
March 19-April 8	Rolf Gerstlauer	Norway
April 6-April 29	Pablo Allard	PUC de Chile

Spring '07: *Urban Form – Sonoran Architecture for the 21st Century* (Medlin, coordinator)

January 22-February 9	Les Wallach	Line and Space, Llc.
February 26-March23	Rob Paulus	Rob Paulus Architects
April 2-April 20	Teresa Rosano/Luis Ibarra	Ibarra Rosano Design Arch.

Spring '08: *What if? Re-envisioning Stone Avenue* (Medlin, coordinator)

January 16-February 13	Madeline Gradillas/Philipp Neher	Rick Joy Architects
February 13-March 14	Nicolas Norero/Claudia Valent	Rick Joy Architects
March 24-April 16	Dale Rush/Matias Zegers	Rick Joy Architects
April 18-May 2	Kimberly Largey/Rick Joy	Rick Joy Architects

Spring '09
None

3.7.4 Public Exhibitions

2003-04
NAAB Exhibition, University of Arizona, School of Architecture, 2003
Eero Saarinen: Between Earth and Sky, 2003
Design Excellence Awards, selected student work juried by AIA committee
Senior Capstone Projects

2004-05
Eladio Dieste: A Principled Builder, 2004
Design Excellence Awards, selected student work juried by AIA committee
Senior Capstone Projects

2005-06
Ralph Erskine: The Box, 2006
Paul Rudolph: The Florida Houses, 2006
Kahn + Judd, 2006
Design Excellence Awards, selected student work juried by AIA committee

Senior Capstone Projects

2006-07
International Programs Student Work: Italy
Frank Lloyd Wright: Organic Campus
A. Richard Williams: Habitat
Design Excellence Awards, selected student work juried by AIA committee
Senior Capstone Projects

2007-08
Go Green Exhibit and Presentations
UA Solar Decathlon Exhibition (Year 1)
Design Excellence Awards, selected student work juried by AIA committee
Senior Capstone Projects
All School Exhibit

2008-09
International Programs Student Work: Italy
UA Solar Decathlon Exhibition (Year 2)

3.7.5 Student Support

Off Campus Programs

La Salle/Mexico City:
The College has for 30 years maintained an exchange program with the Universidad La Salle in Mexico City. This program is structured by reciprocal agreement to exchange a maximum of six fourth-year students from each university in the spring term. The Mexican students take regular lecture courses and are integrated into the design studios and work with Arizona faculty. Courses in Mexico are conducted in Spanish. Students from Arizona must be able to understand Spanish before they may participate. At La Salle, UA students typically take design studio, history, watercolor, graphic design, and architecture electives. Six exchange students from this university have spent a semester at La Salle in the past five years, and three students from Mexico have spent a semester or year at CALA.

Greece and Italy Summer Program:
For the past 19 years, the College has offered a summer study tour of Italy and the Greek isles. Average student participation is 25 students who enroll in two classes, ARC 481/581e – Architecture in the Mediterranean, and ARC 497b – Special Projects in Architecture. Course work includes readings, independent research, papers, an annotated journal, and sketch/watercolor drawings. Students are required to graphically document historic sites, village centers, and other things studied on their study tour. Upon the retirement of Professor Charles Albanese, FAIA, its founder, the program is now under the direction of associate and junior faculty and focuses on Italy.

DIS/Copenhagen:
The Danish International Studies Program is a University accredited international studies program offering courses in several areas. The DIS program offers the opportunity to study Architecture, Interior Architecture, and Urban Design studios in either or both semesters. The summer program is more interdisciplinary with course offerings in architecture, urban design, Interior architecture plus furniture, jewelry, textile and glass design, and Sustainability studies.. Typically two or three fourth-year students from Arizona have enrolled in DIS every year since its introduction to the College in the mid-1980s. Courses offered are: Design Studio; Digital Design Journal; Visual Journal; Urban Design Journal; European Urban Design Theory; 20th C. Danish Design; and Contemporary European Architectural Theory. The semester program includes optional study tours to London, Paris, Greenland, Iceland, Rome, Moscow/St. Petersburg, Istanbul and an immersion Service Learning experience in East Central Europe.. All students are required to enroll in a 6-unit core

Design Studio; in the fall and spring semesters students enroll in additional electives for a total of 12-15 units; in the summer, they are required to enroll in a 3-unit course on Scandinavian Design in addition to the required studio.

ETSAM/Madrid:
In May 2004, Professors Andres Canovas and Nicolas Maruri from Escuela Técnica Superior de Arquitectura de Madrid (ETSAM) taught in the UA Distinguished Visitors' Studio. In Fall 2004, School of Architecture Director Alvaro Malo traveled to Spain to present a lecture at ETSAM. In Spring 2005, Prof. Gines Garrido from ETSAM taught in the UA's Distinguished Visitors' Studio. Eight CALA students have spent a semester at ETSAM since May 2005, and seven ETSAM students have reciprocated.

PUC/Santiago:
In Spring 2004, Professor José Rosas from the Pontificia Universidad Católica de Santiago (PUC) in Chile taught in the UA Distinguished Visitors' Studio. In Spring 2005, the second International Symposium on "Urban Design in Arid Zones", which had begun at PUC in 2003, was continued in Tucson. Professor Pablo Allard from PUC participated. Also in Spring 2005, Professor Sebastian Gray from PUC taught in the UA Distinguished Visitors' Studio, followed by Professor Allard in Spring 2006. This program has had three student exchanges; two inbound, and one outbound.

AHO, Norway
A faculty and student exchange agreement was made in 2005 with the University of Oslo, the Oslo School of Architecture and Design (AHO). In Spring 2006, Professor Rolf Gerstlauer from AHO taught in the UA's Distinguished Visitors' Studio. In exchange, CALA Assistant Professor Dale Clifford spent the Fall 2006 semester at AHO as visiting scholar.

The University of Stuttgart
Professors Jorg Schlaich and Werner Sobek from the University of Stuttgart taught in the Distinguished Visitors' Studio in Spring and Fall of 2005, respectively, and a CALA student visited that university in Fall 2005.

Australia
Three new faculty and student exchange agreements were entered into during the past 5 years: with the University of Technology, Sydney in 2005, the University of Newcastle in 2006, and the University of Sydney in 2007. Professors Peter Stutchbury and Glenn Murcutt visited CALA to teach in the Distinguished Visitors' Studio in Spring 2004 and in Fall 2005, respectively. Seven of our students have visited these and other universities in Australia, and one Australian student spent a semester at CALA.

Other International Programs:
Occasionally, students will join other study abroad programs in Architecture that are offered in fall, spring, or summer sessions. Programs enrolling UA students have in the past several years included Columbia University's New York/Paris program, Syracuse University's program in Florence and Rome, Italy, and Bowling Green's program in Florence (SACI). These programs typically offer courses in design and history and theory, as well as study tours. Our program has been enriched by study abroad visitors from other universities in Colombia, Germany, Israel, and Mexico.

Travel:
Travel to major cities and significant architectural sites, both domestic and foreign, is strongly encouraged. Field trips to nearby sites are common. Occasionally, faculty will take a group of students to a major city further away. Many of our students take a major tour in this country or Europe upon graduation.

3.7.6 Policies, procedures, and criteria for appointment, promotion, tenure and for faculty development opportunities

General Policies and Procedures
Detailed information regarding faculty and appointed personnel can be found in the Arizona Board of Regents (ABOR) Manual at

http://www.abor.asu.edu/1_the_regents/policymanual/chap6/index.htm

and the University Handbook for Appointed Personnel (UHAP) at

http://w3.arizona.edu/~uhap/chap3.html

Specific policies pertaining to the College and the School of Architecture can be found in the "Bylaws and Constitution of the General Assembly of the College of Architecture and Landscape Architecture of the University of Arizona" and the "School of Architecture Bylaws."

Faculty Search
All faculty searches are conducted in compliance with Equality of Opportunity and Affirmative Action policies of the University's Office of Human Resources. Searches for full-time positions are advertised nationally and are conducted by specially appointed Search Committees composed of Architecture faculty members and students. Searches for adjunct positions are advertised locally and are conducted by the Director of Architecture in consultation with the faculty.

Appointment
All faculty appointments are made in conformity with the Arizona Board of Regents (ABOR) Chapter VI Personnel Policies, 6-201 Conditions of Faculty Service. The Director of Architecture, with the advice of pertinent faculty committees, makes decisions regarding appointment offers. Appointments become effective when approved by the President of the University. Letters of offer of appointment always include the following specific information: tenure or non-tenure eligibility, rank, salary, benefits, workloads and teaching responsibilities, research/creative activity expectations, service expectations, and School and University review procedures.

Promotion and Tenure
The criteria for promotion and tenure review are established in UHAP Section 3.11. For tenure-eligible faculty prior to April 2003, the mandatory employment renewal process has occurred in the second, fourth, and sixth (tenure) years, following procedures outlined in UHAP Section 3.12. As of April 2003, the mandatory employment renewal process has occurred in the third and sixth (tenure) years. Faculty members hired before September 1, 2003, had the option of choosing the pre-2003 review cycle—in the second, fourth, and sixth (tenure) years—or the new. Reappointment in rank at the end of three years (or two and four years, earlier) is made without College or University review, but the Faculty Status Committee of the School of Architecture and the Director must formally evaluate tenure-eligible faculty. These evaluations are made in writing, identifying any problem areas, which may preclude the granting of tenure, and are given to the non-tenured faculty member. Decisions not to reappoint, however, must follow from the full review process described in UHAP Subsection 3.12.07.

Promotion and tenure require excellent performance and the promise of continued excellence in teaching, research, and service. Within these general guidelines, College criteria regarding rank specific promotion and tenure are established in the "Bylaws and Constitution of the General Assembly of the College of Architecture and Landscape Architecture of the University of Arizona." Criteria specific to Architecture faculty are found in the "School of Architecture Bylaws".

The Faculty Status Committee of the School initiates all promotion and tenure actions. The Committee is composed of five tenured faculty members elected by the faculty. The Committee advises the Director, who then forwards recommendations to the College Faculty Status Committee, the Dean, and to higher administrative levels.

The Provost appoints a University Standing Committee on Faculty Status composed of at least nine members, including female and minority members and representing diverse disciplinary areas. This Committee advises the Provost in all promotion and tenure considerations. The Provost shall decide whether an individual will be promoted or granted tenure or will not be renewed in his or her position. In the case of non-renewal of a tenure-eligible individual, a terminal contract shall be offered for the next appointment period.

In cases where the Provost has decided not to renew or has denied promotion or tenure to a tenure-eligible faculty member or promotion to a tenured faculty member, the faculty member may appeal the non-renewal or denial to the President. Such appeals must be filed in writing with the Office of the President within 30 days after notice of the Provost's decision. The President's review shall be limited to the record compiled under UHAP Section 3.12.07. The President's decision is final. However, the Committee on Academic Freedom and Tenure may subsequently consider allegations of unlawful discrimination or other unconstitutional actions and may recommend further review or action. The President may then direct that such additional review or action be taken; otherwise, the matter is not subject to further review.

An individual who holds a tenured appointment is assured that the President shall offer an appointment to that individual for each succeeding fiscal or academic year until he or she retires, resigns, is dismissed for just cause, or terminated for budgetary reasons or for educational policy change.

Since 2003, there have been three successful promotion and tenure cases and two successful promotion cases; there have also been two cases of denial of tenure. In 2004, one Associate Professor was promoted to the rank of Professor. In 2006, one Assistant Professor was granted promotion to and tenure at the rank of Associate Professor; one Associate Professor was denied tenure. In 2007, one Assistant Professor was granted promotion to and tenure at the rank of Associate Professor. In 2008, one Associate Professor was promoted to the rank of Professor one, one Assistant Professor was granted promotion to and tenure at the rank of Associate Professor, and one Assistant Professor was denied tenure.

Accessing faculty development opportunities

The University of Arizona is a Research I University ranked nationally 13th for public research universities and 20th for all research universities in terms of total research funding. This testifies to an impressive spectrum of faculty, libraries/archives, and laboratories that are accessible to School of Architecture faculty.

Many long-term collaborative relationships welcoming faculty participation exist between the disciplines of the College and other components of the University of Arizona in the areas of teaching, research/scholarship, and service. Examples of this within the College are a revived interdisciplinary studio, with co-convened sections of LAR 611 and ARC 402, the Master's Program for faculty of Mexican universities, and numerous projects of the Drachman Institute. Within the University of Arizona, the School has established collaborative relationships with a variety of UA components such as the Environmental Research Lab, the College of Agriculture, College of Engineering Labs and the Energy Engineering Program, the Office of Arid Land Studies, the Southwest Center, the College of Public Health, the Center for Middle Eastern Studies, Department of Anthropology, the College of Social and Behavioral Sciences, the Optical Sciences Center, the Science and Technology Research Park, the Department of Resident

Life, Campus Recreation, Parking and Transportation Services, Facilities Design and Construction, the College of Fine Arts, the UA Foundation, and the Center for Computing and Information Technology.

Additional faculty development opportunities are obtained by securing sponsorships and/or grants for a variety of research and community service activities. Recent support includes local, state and national organizations. Many are repeat and/or continuing sponsors.

Another avenue of faculty development is a variety of travel opportunities. Faculty participate in exchange and/or travel programs such as the LaSalle/Mexico City, the Italy Summer Program, DIS/Copenhagen, ETSAM/Madrid, PUC/Santiago, AHO/Norway, the University of Stuttgart, and multiple institutions in Australia, and other international programs. (These programs are described in Section 3.6.5 Student Support above.)

Faculty also travel to participate in conferences, seminars, and workshops, and to give lectures. These activities are supported by stipends obtained by faculty from the event sponsors, UA International Foreign Travel grants and/or a School of Architecture travel budget administered by the Director.

3.7.7 Facilitation of faculty research/scholarship/creative activity

Individual faculty development benefits from a UA mandated Annual Review for all faculty members. Each faculty member prepares an information packet outlining his or her accomplishments for the year in the areas of Teaching, Design/Research/ Scholarship and Service. Substantial evidence of how faculty members remain current in their knowledge is part of that annual packet. Feedback often with specific suggestions for development opportunities is provided by peer reviewers, the Faculty Status Committee and in a meeting with the School Director. The Policy and Procedures for Annual Performance Reviews are outlined in Article XII of the Bylaws of the School of Architecture.

Annual Review
Faculty members of The University of Arizona are evaluated with respect to all personnel matters on the basis of excellence in performance. The annual performance review is intended to guide and support faculty members in the pursuit of excellence. Annual performance reviews follow specific procedures outlined in UHAP Section 3.10. They are intended to accomplish the following objectives:

1. To involve faculty members in the design and evaluation of the objectives and goals of their academic programs and in the identification of performance expectations central to their own personal and professional growth;
2. To assess actual performance and accomplishments in the areas of teaching, research, and professional service through the use of peer review;
3. To promote the effectiveness of faculty members through an articulation of the types of contributions they might make that enhance the University;
4. To provide a written record of faculty performance to support personnel decisions;
5. To recognize and maximize the special talents, capabilities, and achievements of faculty members;
6. To correct unsatisfactory ratings in one or more areas of responsibility through specific improvement plans designed to correct the deficiencies in a timely manner;
7. For tenured faculty members, to fulfill the directives of ABOR-PM 6-201(H), Post-tenure Review.

The annual review includes an evaluation by both a peer review committee from within the unit and the immediate administrative head. In the School of Architecture, these responsibilities have been assigned to the Faculty Status Committee and the Director, respectively.

Each year, the Director conducts evaluations of individual faculty members. Before their annual evaluation meeting with the Director, faculty members conduct a self-evaluation in three categories: teaching, design/research/scholarship, and service. They also receive evaluations from peers and students. These are collected in a packet that is reviewed by the Faculty Status Committee and forwarded to the Director with summary evaluations. A follow-up meeting of each faculty member with the Director is intended to support individual faculty in achieving excellence in their performance determining any necessary adjustments. When required, procedures are included in the evaluation that could lead to dismissal of faculty members failing to demonstrate progress toward performance goals.

In addition, untenured tenure track faculty members are offered the option of working with a tenured faculty as a Mentor for their promotion and tenure process. This provides an avenue for newer faculty to be counseled in a variety of matters including guidance in accessing personal development opportunities. Such mentoring along with discussions with the School Faculty Status Committee and the School Director help prepare untenured faculty for Promotion and/or Tenure Reviews. Procedures for the appointment of tenured faculty as Mentors for faculty seeking tenure and/or promotion are outlined in article XI-10 of the Bylaws of the School of Architecture. Promotion Policies and Procedures are outlined in the University Handbook for Appointed Personnel (UHAP), the College's Policies and Procedures Handbook Article I and Article XI Promotion Policies and Procedures for Academic Appointments of the Bylaws of the School of Architecture.

Sabbatical Leave and Unpaid Leave

The University has an established policy for sabbatical leaves. After six years, faculty members may apply for a one-semester or full-year sabbatical leave. Faculty members taking a one-semester sabbatical receive full salary. Faculty members taking a full-year sabbatical receive sixty percent of their salary. Six faculty members have received one-semester sabbatical leaves in the period 2003-09: one in Fall 2003, one in Fall 2004, one in Fall 2006, one in Spring 2007, one in Fall 2007, one in Spring 2008. In addition, three faculty members have received full-year sabbatical leaves in that period: two in 2007-08, one in 2008-09. The University also has a policy for unpaid leaves of absence for research and academic or professional development. One faculty member was on leave in fall 1998, taking a Visiting Scholar position at the University of Minnesota.

Temporary Alternative Duty Assignment (TADA)

The University has a specific policy granting Temporary Alternative Duty Assignment (TADA) for health or family reasons. This releases the individual entirely from teaching responsibilities for a given semester. Compensatory research and service responsibilities are negotiated by the faculty member in question and the School Director.

3.7.8 Faculty Research

Funded research activities are distributed across a broad spectrum of topics involving the majority of the faculty. The projects reported below are a record of those activities since the last accreditation visit.

Academic Year	Project (Sponsor)	Grant Amount	Faculty
2008-09	On-line Distance: Deliverable Curriculum and Certificate in Energy Conservation (TRIFF) – **pending approval**	199,919	Chalfoun
2008-09	Roth Traveling Studio: Performing a Traveling Studio with 10 U.S. and 10 Saudia Arabia Students – **pending approval**	28,500	Chalfoun
2008-09	U.S. Department of Energy: Solar Energy Efficient Dwelling – **pending approval** (10%)	100,000	Domin, Malo
Sub-Total (pending approval)		328,419	
2008-09	Petrified Forest National Park "Energy Audit and Developing Energy Plan"	30,000	Chalfoun
2008-09	Starr Pass Sustainable Residential Community Design and Development – Sam Engineering	10,000	Chalfoun
2008-09	Petrified Forest National Park –"Extended Energy Analysis, Energy Audit"	30,500	Chalfoun
2008-09	Arizona Rise: Solar Energy Efficient Dwelling (20%)	100,000	Domin
2008-09	Solar Energy Efficient Dwelling – University of Phoenix (20%)	120,000	Domin
2008/09	Casa Grande Ruins National Park (NPS)	5,000	Jeffery

2008/09	Saguaro National Park NPS	7,652	Jeffery
2008/09	Pine Creek Historic NPS	11,500	Jeffery
2008/09	Casa Grande Ruins NPS	20,000	Jeffery
2007/08	Tumacacori Pecos, NM NPS	7,000	Jeffery
2007/08	"Medieval Jewish Space, Real and represented: Leeds, England – travel research grant	600	Hollengreen
2006/07	Hermit's Rest NPS	61,400	Jeffery
2006/07	IMR Parks NPS	30,000	Jeffery
2006/07	Dos Lomitas NPS	10,000	Jeffery
2006/07	Mission Parks NPS	20,000	Jeffery
2006/07	Superintendent's House NPS	56,000	Jeffery
2006/07	Speaker Series	4,019	Jeffery
2006/07	NEH Summer Institute: "Representations the 'Other': Jews in Medieval Christendon Oxford, England – travel research grant	3,600	Hollengreen
2006/07	Pima county General Obligation Bonds Infrastructure for Affordable Housing Sa Antonio Barrio	158,000	Hardin
2006/07	Tucson Medical Center, "Sustainability, LEED, and Energy Consultancy Services for Rincon Community Hospital, 4 year project	520,494	Chalfoun
2006/07	UA School of Dance & School of Architecture Collaborative grant for material and production costs for sets and costumes	3,000	Weinstein

2006/07	University of Az. Economic Developmer Foundation – Studies at the UA BioSciences Park, Kino Parkway and 36th Street	5,000	San Martin
2005/06	UAZCP Log Cabins NPS	6,000	Jeffery
2005/06	Four Bldgs. Village NPS	80,579	Jeffery
2005/06	El Malpais NPS	15,115	Jeffery
2005/06	Walnut Canyon NPS	32,696	Jeffery
2005/06	Log Restrooms NPS	6,000	Jeffery
2005/06	UAZCP Cultural Landscape Reports NPS	100,000	Jeffery
2005/06	Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA), Tucson Water, U.S. Bureau of Reclamation and Pima County	67,500	Brittain
2005/06	City of Tucson, Rio Nuevo Project	29,600	San Martin
2005/06	Metro Energy Commission (MEC) Sustainable Lighting Committee	2,000	Chalfoun
2005/06	"Paper Shells" and "Brainching" - UA Foreign Travel grant: Jarata, Poland	800	Vollen
2005/06	Rose Neighborhood Pedestrian Bridge, Tucson, AZ. design for bridge with Drachman Institute	300,000	Trumble, Clifford
2005/06	Research, Analyze, Synthesize: Goals Outcome of CIVANO Water Conservation	2,000	Brittain
2005/06	UA Foreign Travel grant, Bucharest, Romania	600	Clifford

2005/06	International Association of Space and Shell Structures faculty Small Grant: For Acoustics Sound Gap Materials	7,800	Clifford
2004/05	DS-CESU Smith House	9,000	Jeffery
2004/05	UAS12 Bryce Canyon NPS	25,000	Jeffery
2004/05	Bates Well Ranch NPS	14,500	Jeffery
2004/05	Chiricahua Ft. Bowie NPS	30,000	Jeffery
2004/05	HUD-COPC Community Outreach Partnership Center, Energy Analysis of Housing Prototypes	35,000	Chalfoun
2004/05	Drachman Design Build Coalition – Residence design and construction documents for rammed earth and steel residence: Chicanos Por La Causa	155,000	Folan, Hardin
2004/05	UA VP Research – Sustainable Lighting Committee	25,000	Chalfoun
2004/05	Foreign Travel grant, Santorini, Greece	700	Chalfoun
2004/05	UA Foreign Travel Grant – Dublin, Ireland	700	Chalfoun
2004/05	Masonry Laboratory Project Guild members Young Block, Inc., Southwest Concreate Accessories, Sun Valley Masonry	1,500	Hardin
2004/05	Master plan of Highland Vista/Cinco Via Neighborhood schematic design and programing	160,000	Vollen
2004/05	City of Tucson, Rio Nuevo: multi-purpose	29,600	San Martin
2004/05	Pulte Homes grant to House energy Doctor	20,000	Chalfoun

2004/05	Envelope System Research Apparatus (ESRA)	25,000	Chalfoun
2004/05	Sustainable Lighting Committee – Observatory Community	15,400	Chalfoun
2004/05	Richard A. Harvill Foundation Award – symposium "The Role of Higher Education in Transforming Communities: Urban Design in Arid Zones	48,000	San Martin
2003/04	EPA Water Quality grant: "Demonstration of the Sustainablity of Harvested Rainwater in Arid Lands"	57,609	Brittain
2003/04	PLEA International Conference – Santiago, Chile paper presentation	1,000	Hardin
2003/04	UA VP Research and Graduate Studies: "Contemporary Strategies for Building ir Hot Arid Lands – Part 1: Australia"	5,925	Nequette
TOTAL – (Excluding Pending)		2,523,389	

3.7.9 Faculty Scholarship and Development Activities

This section documents faculty publications, as well as travel to attend professional meetings, conferences, make presentations, present refereed papers, and moderate sessions at local, regional and national meetings, including meetings of the Association of Collegiate Schools of Architecture.

AY 2003-2004

- John Messina, presentation "Accommodation and Conflict on the Mississippi: Preservation Dilemmas in the New Orleans French Quarter submitted to the International Colloquium for Vernacular, Hispanic, Historical, American, and Folklore Studies, Puebla, Mexico, October 2003.

- Laura Hollengreen and Christopher Domin, peer reviewed paper "Mind and Body at Work in the World," paper co-authored with Christopher Domin, in *Finishing School: Inquiries into the Completion of an Architectural Education, Proceedings of the ACSA Southeast Regional Meeting, 2003.*

- Laura Hollengreen, chaired session at "Finishing School: Inquiries into the Completion of an Architectural Education," ACSA Southeast Regional Meeting, Tampa, FL, November 2003.

- John Messina with Lauri Macmillan Johnson, peer reviewed article "A Surreal Garden in Alamos, Mexico," in *Journal of the Southwest* 5/1-2 (2003), pp. 251-261.

- Richard Brittain, co-author of *The Desert House Water Conservation Project Summary Report 1994-2001*, submitted to City of Phoenix Water Services Department, 2003.

- Laura Hollengreen, "From Medieval Sacred Place to Modern Secular Space: Changing Perspectives on the Cathedral and Town of Chartres," in *Architecture as Experience: Radical Change in Spatial Practice*, ed. Andrew Ballantyne and Dana Arnold (London and New York: Routledge, 2004).

- Laura Hollengreen, organized and chaired a session sponsored by the University of Arizona Medieval, Renaissance, and Reformation Committee at "Translatio or Transmission of Culture," conference sponsored by the Arizona Center for Medieval and Renaissance Studies Studies, Arizona State University, Tempe, February 2004.

- Laura Hollengreen, "Battles at Home and Abroad: The Gothic Illumination of the Morgan Crusader Bible," Early Book Lecture Series, Special Collections, Main Library, University of Arizona, Tucson, March 2004.

- Laura Hollengreen, invited lecture "The Politics and Poetics of Inheritance and Disinheritance: St. Louis, the Jews, and the Shaping of Old Testament Narrative in the Morgan Picture Book," "Between the Picture and the Word: *The Book of Kings* (Morgan 638) in Focus," symposium sponsored by the Index of Christian Art, Princeton University, Princeton, March 2004.

- Laura Hollengreen, session organized and chaired at "Archipelagos: Outposts of the Americas," Annual Meeting, Association of Collegiate Schools of Architecture, Florida Atlantic University, Miami, April 2004.

- Laura Hollengreen, peer reviewed presentation "The Politics and Poetics of Inheritance and Disinheritance: St. Louis, the Jews, and the Shaping of Old Testament Narrative in the Morgan Picture Book [shorter version]," 39th International Congress on Medieval Studies, Western Michigan University, Kalamazoo, May 2004.

- Laura Hollengreen, organized and chaired two sessions at the 39th International Congress on Medieval Studies, Western Michigan University, Kalamazoo, May 2004.

AY 2004-2005

- Laura Hollengreen, peer reviewed presentation "Penitential Sequences in Liturgy and Imagery: The Spaces and Stained Glass of Chartres Cathedral," International Medieval Congress, University of Leeds, Leeds, England, July 2004.

- John Messina, invited lecture at Programa de Arquitectura, La Universidad de Sonora, October 2004.

- John Messina, invited lecture at Tucson Museum of Modern Art, November 2004.

- John Messina, book review "The Hacienda in Mexico," in *Journal of Arizona History* 46 (2005).

- John Messina, invited presentation at "Building within Historic Contexts: Opportunities Lost or Gained," Arizona Preservation Conference, Tucson, AZ, June 2005.

- Laura Hollengreen, session chaired at conference, "The Role of Higher Education in Transforming Communities: Urban Design in Arid Regions," held at the University of Arizona, January 2005.

- Laura Hollengreen, invited public lecture at Art Department, Reed College, Portland, OR, March 2005.

- Laura Hollengreen, invited public lecture at Art Museum, University of Arizona, April 2005.

- Dale Clifford and Shane Smith, peer reviewed publication "Intelligent Building Technologies: Operable Envelope Design," SB05 Tokyo, 2005.

- Dale Clifford, peer reviewed publication "Adaptive Architecture: Intelligent and Responsive Systems," *Proceedings of the Tenth International Conference on Civil, Structural and Environmental Engineering Computing*, Rome, Italy, 2005.

- Dale Clifford and Jason Vollen, peer reviewed publication "Digital Building Technology: Composite Paper Shells," SSTA, Poland, 2005.

- Dale Clifford and Jason Vollen, peer reviewed publication "Parametric Shells: Experimental Methods of Form Generation", SSTA, Poland, 2005.

AY 2005-2006

- John Messina, article "La Casa Alamense: the Mexican Hacienda as Urban Dwelling," *Perspectives in Vernacular Architecture* 12 (2005), 11-31.

- John Messina, article "Architecture and Urbanism of the Pimería Alta," *Guide for the 25th Vernacular Architecture Forum Conference* (2005), 27-41, 109-115, and 127-131.

- Laura Hollengreen, peer reviewed article "The Politics and Poetics of Possession: Saint Louis, the Jews, and Old Testament Violence," in *Between the Picture and the Word: The Book of Kings (Morgan 638) in Focus*, ed. Colum Hourihane (University Park, PA, 2005), 51-71.

- Laura Hollengreen, peer reviewed presentation at an international colloquium jointly sponsored by Brigham Young University and the Université Catholique de l'Ouest, Angers, France, July 2005.

- Laura Hollengreen, presentation, Work-in-Progress Symposium, University of Arizona Medieval, Renaissance, and Reformation Committee, September 2005.

- Laura Hollengreen, peer reviewed presentation, 2005 Convivium Conference, Siena Center for Medieval and Early Modern Studies, Siena College, Albany, NY, October 2005.

- Laura Hollengreen, invited public lecture, "Embedded and Embodied: Monumental Media and a History of Viewing at the Gothic Cathedral of Chartres," Archeological Institute of America, Tucson Society, University of Arizona, March 2006.

- Laura Hollengreen and R. Brooks Jeffery, eds., *La Frontera: Cross-Cultural Vernacular Landscapes*. Field Guide for a the 25th Anniversary Conference, Vernacular Architecture Forum, 2005.

- Laura Hollengreen, invited public lecture, "The Cathedral and Town of Chartres: Foundation Legends, Urban Patterns, and Monumental Media," Alliance Française de Tucson, Tucson, AZ, January 2006.

- Laura Hollengreen, organized/chaired two History/Theory sessions at "Getting Real: Design Ethos Now", Annual Meeting, Association of Collegiate Schools of Architecture, Salt Lake City, March-April 2006.

- Laura Hollengreen, presentation "Fortitude and Infirmity in Images of the Aged at Chartres Cathedral," 4th International Symposium sponsored by the University of Arizona, April 2006.

- Laura Hollengreen, peer reviewed presentation "Revisiting the Patronage and Production of the Morgan Old Testament Picture Book," 41st International Congress on Medieval Studies, Western Michigan University, May 2006.

- Laura Hollengreen, chaired session "Ecclesiastical Architecture," 41st International Congress on Medieval Studies, Western Michigan University, May 2006.

- Richard Brittain, co-author of presentation at "Looking Ahead: Managing Stormwater and Harvesting Rainwater for Conservation" Conference, Tucson, Arizona, 2006.

AY 2006-2007

- Dennis Doxtater, attended World Urban Forum, Vancouver, BC, Canada 2006.

- Laura Hollengreen, organizer and moderator of interdisciplinary round table discussion for University of Arizona Medieval, Renaissance, and Reformation Committee, Fall 2006.

- Dennis Doxtater, peer reviewed presentation, "A report on Geopatterns Sofware: Describing and Analyzing Large-Scale Geometry between Anasazi and Natural Sites in the Southwest United States," Computer Applications and Quantitative Methods in Archaealogy Conference, Fargo, ND, 2006.

- Laura Hollengreen, organized and chaired session at 13th Annual Conference, Arizona Center for Medieval and Renaissance Studies, Arizona State University, February 2007.

- Laura Hollengreen, invited public lecture, "Fit for a Queen: The Hours of Jeanne d'Evreux," Early Book Lecture Series, Special Collections, Main Library, University of Arizona, February 2007.

- Laura Hollengreen, peer reviewed presentation "Reinhabiting Jewish Space," 41st Annual Conference, Medieval Academic of the Pacific, Los Angeles, CA, March 2007.

- John Folan and Mary Hardin, peer reviewed article, "DDBC Residence One" in *FRESH AIR*, Proceedings of the ACSA 95th Annual Meeting, Philadelphia, PA, March 2007.

- Beth Weinstein, peer reviewed article in *FRESH AIR*, Proceedings of the ACSA 95th Annual Meeting, Philadelphia, PA, March 2007.

- Nader Chalfoun, attended conference 2nd Urban Heat Island Symposium, University of Arizona, May 2007.

AY 2007-2008

- Beth Weinstein, guest professor, Architecture Drawing Class at Parsons School of Design, New York, NY, Summer 2007.

- Beth Weinstein, guest critic, SCI-ARC Graduate Representation Course, Parsons School of Design, New York, NY, 2007.

- Beth Weinstein, guest professor, Introduction to Architecture Studio, Columbia University, New York, 2007.

- Laura Hollengreen, peer reviewed presentation " Reinhabiting Jewish Space, Real and Represented." 14th International Medieval Congress, University of Leeds, England, July 2007.

- Laura Hollengreen, organized and chaired three sessions at 14th International Medieval Congress, University of Leeds, England, July 2007.

- Nader Chalfoun, attended Sustainability Town Hall Meeting, Arizona State University, September 2007.

- Beth Weinstein, attended "Glass in Engineering + Architecture", Columbia University GSAPP, September 2007.

- John Folan, "Ladrillo de Cristal Reciclado", editor solicited, peer reviewed journal article published in *Pasajes Construcción, Materiales* 31 (2007), 38-39.

- Nader Chalfoun, attended US Green Building Council Annual Green Build Conference, Chicago, IL, November 2007.

- Nader Chalfoun, attended "Climate Change and the Role of Higher Education," Arizona State University, November 2007.

- Ignacio San Martín, Keynote speaker at international congress "Las Nuevas Escalas del Territorio Sustentable," San Sebastian, Spain, November 2007.

- Ignacio San Martín, speaker at international symposium, "Taller en Resiliencia: Panoramas e inovaciones en la enseñanza del taller," School of Architecture, Universad Católica de Chile, December 2007.

- Nader Chalfoun, publication "Tucson Medical Center Rincon Community Hospital in CIVANO, Design Schemes and Energy Analysis," 2007.

- Richard Brittain, public lecture published in *Exploring the Built Environment, Essays on the Presentations of Diwan Al-Mimar and Affiliated Public Lectures*, ed. Mohammad al-Assad and Majd Musa, (Amman, Jordan: Center for the Study of the Built Environment, 2007).

- Ignacio San Martín, article "Re-thinking Urban Futures: Toward a Livability Agenda?" *Ciudades* (The University of Valladolid School of Architecture), 2007.

- Álvaro Malo, studio reviewer, College of Design, North Carolina State University, Raleigh, NC, February 2008.

- John Messina, invited lecture "Southwest Regionalism," Community Design Academy, Sonoran Institute, February 2008.

- Beth Weinstein, peer reviewed article in *Visionaries at the Margins, Proceedings of the ACSA 2008 Annual Conference*, March 2008.

- Mary Hardin, peer reviewed article with John Folan, "DDBC Residence 1," in *arkitectur.aktuell* 336 (2008).

- Laura Hollengreen, peer reviewed presentation "Presence, Absence, and Aura: Possibilities of the Empty Vitrine and Other Display Strategies in the Wake of Repatriation Legislation," at "LOCATION: The Museum, the Academy and the Studio", Annual Conference of the Association of Art Historians, London, England, April 2008.

- Laura Hollengreen, peer reviewed presentation "The Senses in Spatial Extension/Space in Sensual Intension: The Case of Jewish-Christian Interaction in Northern Europe," 43rd International Congress on Medieval Studies, Western Michigan University, May 2008.

- Laura Hollengreen, invited public lecture, "A Spatial Perspective on Medieval Christian-Jewish Relations in Northern Europe," International Medieval Society, Paris, France, May 2008.

- Álvaro Malo, studio reviewer at GSAP, Columbia University, New York, NY, May 2008.

- Christopher Domin, participation in final and interim review juries for graduate and undergraduate students at Arizona State University, May 2008.

- Christopher Domin, attended conference on BIM + Sustainability Design Symposium, USC School of Architecture, June 2008.

AY 2008-2009

- Nader Chalfoun, presentation "Integrating Logic and Intuition for an Energy Efficient Single Family Residence in Tubac, Arizona" at 2008 ACEEE Summer Study on Energy Efficiency in Buildings, Asilomar Center, Pacific Grove, CA, August 2008.

- Nader Chalfoun, presentation/publication "Thermal Comfort Assessment of a Proposed Green Roof Design on Top of the College of Architecture and Landscape Architecture in Tucson, Arizona," IBPSA-USA SimBuild 2008, University of California at Berkeley, August 2008.

- Tom Powers, attended "Building Information Modeling – Integrating BIM & Best Practices", Phoenix, AZ, August 2008.

- Álvaro Malo, guest lecture, "Architecture and Engineering: twin ecologies", Department of Civil Engineering & Mechanics, College of Engineering, The University of Arizona, September 2008.

- Álvaro Malo, symposium presentation "Architecture and Engineering: Asymptotic Paths", at School of Design, University of Pennsylvania, Philadelphia, PA, October 2008.

- Mary Hardin, invited lecture at AIA Phoenix and Association Community Design Conference, October 2008.

- Álvaro Malo, guest critic at Fakultät für Architektur, TUM Munich, Germany, October 2008.

- Nader Chalfoun, guest speaker, ASHRAE Annual Meeting, Tucson, AZ, October 2008.

- Nader Chalfoun, invited speaker, Carbon Neutral Studio, Higher Education Summit, USGBC, Boston, MA November 2008.

- Nader Chalfoun, invited speaker, "Energy Conservation Strategies," Pima County Green Building Program, Development Services Department, November 2008.

- Nader Chalfoun, keynote speaker, seminar on "Sustainable Construction and Design in Arizona," The Lorman Education Institute, Tucson, AZ, November 2008.

- Nader Chalfoun, article, "Examination of Visual Comfort in Transition Spaces," *Journal of Architecture Science Review* 50/4 92008): 349-356.

- Nader Chalfoun, publication, "Monitoring the Effect of Green Roofs on Urban Heat Island and Thermal Comfort", the International Conference on Climate Change Impacts and Responses," Pune, India, 2008.

- Nader Chalfoun, publication, "Puerto Lobos: A Sustainable Community Development in Sonora, Mexico," Annual Green Build Summit, USGBC, Boston, 2008.

- Nader Chalfoun, presentation, "Sustainable Construction and Design in Arizona," Lorham Education Institute, Tucson, AZ, November 2008.

- Álvaro Malo, symposium presentation "Perspe ctives: On Glass", Interdisciplinary Symposium with Material Sciences and Engineering, University of Arizona, Tucson, AZ, November 2008.

- Tom Powers, director and coordinator of symposium "Plug-n Power Up...Collaborative Digital Design", The University of Arizona, November 2008.

- Anne-Marie Nequette, presentation "Preservation of Modern Architecture in Tucson," AIA Southern Arizona, November 2008.

- Ignacio San Martín, editor, book *Urban Design in Arid Regions: A selection of papers from the Arizona Symposium* (Tucson: University of Arizona Press, 2008).

- Ignacio San Martín, chapter in book *Urban Design in Arid Regions: A selection of papers from t he Arizona Symposium*. ed. Ignacio San Martín (Tucson: University of Arizona Press, 2008).

- John Messina, book *Álamos, Sonora: Architecture and Urbanism in the Dry Tropics* (Tucson: University of Arizona Press, 2008).

- Anne-Marie Nequette, invited lecture for University of Arizona Honors College Speakers Series, 2008.

- Mary Hardin, book chapter in *O Lugar do Projeto*, Contra Capa Livraria Ltda., Rio de Janeiro, 2007 (available 2008).

- Mary Hardin, book project with John Folan, "Publication of DDBC Residence 1" in *Earthen Architecture*. ed. Ron Rael (Princeton: Princeton Architectural Press, 2008).

- Mary Hardin, book project with John Folan, "Publication of DDBC Residence 1" in *Integrated Design in Contemporary Architecture*. ed. Kyle Moe, (Princeton: Princeton Architectural Press, 2008).

- Dennis Doxtater, chapter in *Monitoring, Simulation, and Management of Visitor Landscapes*. R. Gimblett and H. Skove-Peterson, eds (Tucson: University of Arizona Press, 2008).

- Anne Marie Nequette, invited lecture for Tucson Museum of Art, Contemporary Art Society, 2008.

- Laura Hollengreen, chaired session at 15th Annual Conference, Arizona Center for Medieval and Renaissance Studies, Arizona State University, February 2009.

- Laura Hollengreen, co-organized and co-chaired session with Gerald Guest at 97th Annual Conference, College Art Association, Los Angeles, CA, February 2009.

- Laura Hollengreen, editor, book *Translatio, or the Transmission of Culture*. Proceedings of the 10th Annual Conference, Arizona Center for Medieval and Renaissance Studies (Turnhout, Belgium: Brepols, 2009).

- Mary Hardin, peer reviewed article "Value Created Through Operative Practice", *Proceedings of the 97th Annual ACSA Meeting*, Portland, OR, March 2009.

- John Messina, peer reviewed paper accepted for presentation at Coloquio Internacional, El Colegio de Sonora and Universidad Autónoma de Madrid, Hermosillo, Mexico April 2009.

- Dennis Doxtater, article "Minoan Palaces in a Georitual Framework of Natural Features on Crete: Rethinking Scully's Relationship between Religious Architecture and the Sacred Landscape," *Landscape Journal* 28:1 (2009).

- Dennis Doxtater, report on Geopatterns Software in *Digital Discovery: Exploring New Frontiers in Human Heritage*, Proceedings of the 34th Conference of Computer Applications and Quantative Methods in Archaelogy (Budapest: Archaeolingua).

- Christopher Domin and Joseph King, book *Paul Rudolph: The Florida Houses*, new edition with additional essay by the authors (Princeton: Princeton Architectural Press, April 2009).

- Beth Weinstein, peer reviewed article "Flamand and his Architectural Entourage," *Journal of Architectural Education* 64/1.

Faculty Books published (also listed above)

- Ignacio San Martín, editor, book *Urban Design in Arid Regions: A selection of papers from the Arizona Symposium* (Tucson: University of Arizona Press, 2008).

- John Messina, book *Álamos, Sonora: Architecture and Urbanism in the Dry Tropics* (Tucson: University of Arizona Press, 2008).

- Laura Hollengreen, editor, book *Translatio, or the Transmission of Culture*. Proceedings of the 10th Annual Conference, Arizona Center for Medieval and Renaissance Studies (Turnhout, Belgium: Brepols, 2009).

- Christopher Domin and Joseph King, book *Paul Rudolph: The Florida Houses*, new edition with additional essay by the authors (Princeton: Princeton Architectural Press, April 2009).

3.8 Physical Resources

3.8.1 Original CALA Building

The School of Architecture, together with other units of the College of Architecture and Landscape Architecture, is housed in two buildings. The older, west building was constructed in 1965, expanded in 1970, and expanded again in 1979. The three-story structure has a central roofed Centrum called the T.M. Sundt Design Gallery that provides 2,800 square feet of exhibition space to the University, Tucson, and Arizona communities over the course of the year. Second- and third-year professional phase design studios in the building provide for approximately 120 workstations. Before the last accreditation visit, all workstations were replaced by a durable steel system that provides computer and power hookups, secure storage, and open shelving. In addition, each studio was supplied with large tables that serve the purposes of project layout, storage, and fabrication, as well as group seminars. The Foundation Studio has also been rebuilt to include 50 workstations, portfolio storage for 120 students, a central layout table, and generous tackable surface for exhibits and critiques. Other facilities housed in the building include the College's Administration, Dinsmore Conference Room, ARCHON Seminar Room, Computer Laboratory (operated by the UA Library), second- and third-year studios, and faculty and staff offices. The lecture hall, Arch 103, is an 88-seat audio/visual facility with computer projection and laptop hook-ups at every seat.

3.8.2 CALA Addition

In 2001, the Arizona Board of Regents (ABOR) approved a $7 million building addition to bring Architecture, Planning, and Landscape Architecture together under one roof. After the removal of Planning from the College, University approval was given to re-program the building addition to the needs of the School of Architecture and the School of Landscape Architecture. The expansion, costing $9.3 million in the end, features a 7,000 square foot state-of-the-art wood, metals, glass, concrete, and design/build laboratories, as well as a demonstration garden. Experimental construction, assembly, and demonstration has become much more feasible. In addition, the University devoted approximately $3 million renovation of the original building. The combined total of the new and the renovated buildings have brought the space allocation to a level approximately comparable to that of peer institutions: i.e., studio space has increased to an average of 60 square feet per student. Unfortunately, however, most of the budget to monitor and maintain these facilities was removed through the value engineering process.

3.8.3 Other CALA Buildings

In addition to the CALA buildings, the University provides the school with a historic house, the Smith House, directly across the street from the CALA facility; it houses the Center for Preservation Studies program. Listed on the National Register of Historic Places, the house now contains offices, student workstations, a conference room, and a library. In addition to its presence in the CALA facility, the Drachman Institute occupies office space in a nearby, off-campus, historic structure.

3.8.4 Special Laboratories

Material Laboratories & Shops
The 7,000 square foot state-of-the-art laboratories are dedicated to building, testing, and learning to use a variety of materials, including ceramics, concrete, glass, metal, wood, and synthetics. The Digital Fabrication Laboratory offers services such as 3D printing, laser cutting, and more.

Funds for the incremental purchase of equipment have disappeared due to severe budget cuts, whereas in the years 2000–2005, the School of Architecture began a concerted effort to purchase

material fabrication, 3D prototyping, and material testing equipment that totaled $120,000. In addition to capital funds for the purchase and cyclical replacement of state-of-the-art equipment, operations and personnel funding has also been necessary to maintain these labs so that they remain integral parts of the design education we offer. Our well-regarded facilities create opportunities for university-industry research on campus, strengthen our ability to recruit quality students, and advance our national and international position in materials technology research.

The photography and Visual Simulation Laboratory has been incorporated into the renovated CALA facility, including a heliodon currently under construction. Additional purchases of equipment ($4,500) and a dedicated .25FTE faculty line have improved the use of photography for instructional, research, and archiving needs.

Computer Laboratories

The goal of the College's network operation is to provide the fastest, easiest to use, and most reliable network possible to students, faculty, and staff. The network is presently using a 1-gigabit backbone. Data jacks have been installed in every classroom and lecture room, as well as in faculty and administrative offices. All students have network connectivity through their studio workstations and required laptops. Networking uptime has maintained over a 97% rating with most downtime-scheduled maintenance for file servers and printers.

Information technology support, financially supported and administered at the college level, is a constant struggle. The challenges of quality support, dwindling resources, and increased faculty and student demands prompted the College to contract the University Information Technology Services (UITS) to facilitate a comprehensive assessment of Information Technology within the College. The assessment, conducted by a team comprised of UITS staff and IT professionals from other University units, will be published before the end of the Spring 2009 semester and will be available for review upon request.

The local area network (LAN) is controlled by College servers. It allows students to log on and gain access to College resources including printers and scanners. It also allows users to work together, sharing data that is stored in a central location. The LAN is based on Microsoft Windows Server 2003; the network also has over a dozen Apple Macintosh machines using the same resources.

The college's web site (http://cala.arizona.edu) is also running from our LAN [hosting is being transferred to UITS but content is still managed by CALA] for information updates that may be relayed to the Internet instantly. The web site is used as an educational tool and for outreach to prospective students and alumni. Program information, course listings, faculty information, events, and student work can all be found online. The College has taken steps to move selected course materials online, providing syllabi, assignments, and schedules, as well as course images through Imagen: An Online Multi-Media Database.

The Frank Mascia Computer Classroom (Architecture 205) contains twelve student workstations and is available for instructional purposes only as a shared facility between CALA and the UA Libraries. Use of the classroom is scheduled through the CALA main office (621-6751 or cala@u.arizona.edu) and first priority is given to regularly scheduled CALA classes. The lab workstations are equipped with the following software applications: AutoCAD 2008, Revit 2008, MS Office Suite, ArcGIS 9.2, ArcInfo, Energy 10, and Sketchup 6. A list of additional software applications provided by the university in its computer labs is available at http://www.library.arizona.edu/ic/infocommons-software-alpha.html.

The PCs in the main computer lab include (4) Intel Pentium Core2Duo 2.66GHz processor PCs with 3.25GB RAM running Windows XP Professional SP3 and (12) Intel Pentium D 3GHz processors running Windows Vista SP1.

The Architecture Graduate lab has (2)Core2Duo and (2)Core2Quad PCs running Windows XP Pro SP3 and (1) 11"x17" flatbed scanner and one large format printer (plotter).

The Landscape Architecture Graduate lab has 3 older PCs - [2 Intel Xeon 1.5GHz/512MB RAM and 1 Pentium 4 1.8 Ghz/512 MB RAM. Also, one 11"x17" flatbed scanner, one 36" sheet feed scanner and one 42" plotter.

The Planning Graduate lab has (4) Intel P4 3GHz processor PCs with 512MB RAM and one Intel Core2Duo PC with 2.66GHz processor and 3.25 MB RAM.

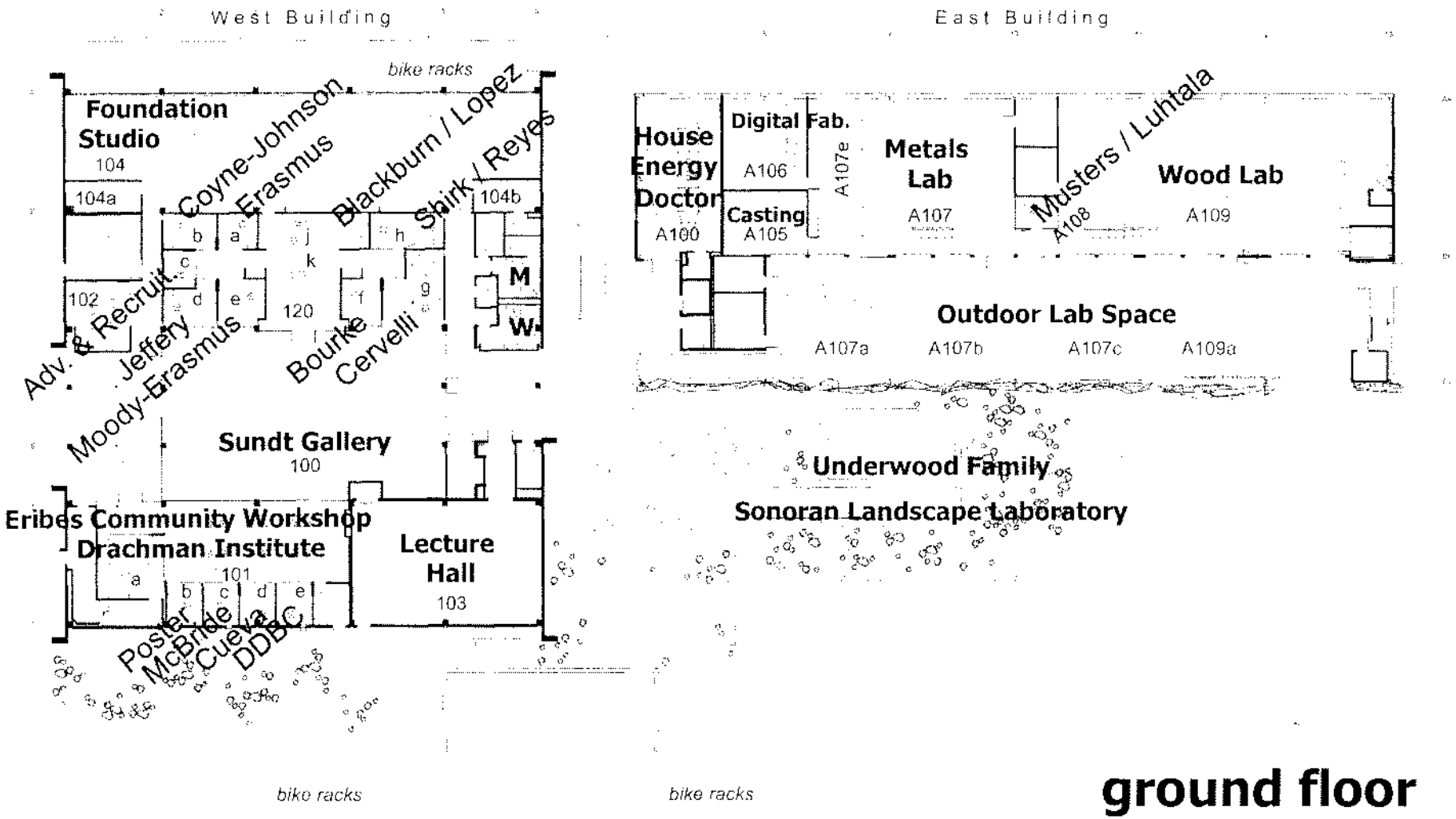
Undergraduate wide-format printing (plotting) in The School of Architecture is managed by the School's AIAS chapter. Students in the graduate Architecture, Planning and Landscape Architecture programs have separate plotting equipment and pay for paper used in their plotting jobs, but otherwise have unrestricted access to the wide-format printing equipment located in their respective Graduate Labs on the third floor of the east building.

A small inventory of support devices is available to students and faculty for checkout, including high-resolution LCD projectors, digital cameras, and laptop computers.

Plans for future network development include migration to Windows 2008 for better network management and deployment of a group of workstations exclusively devoted to rendering 3-dimensional images and short animations.

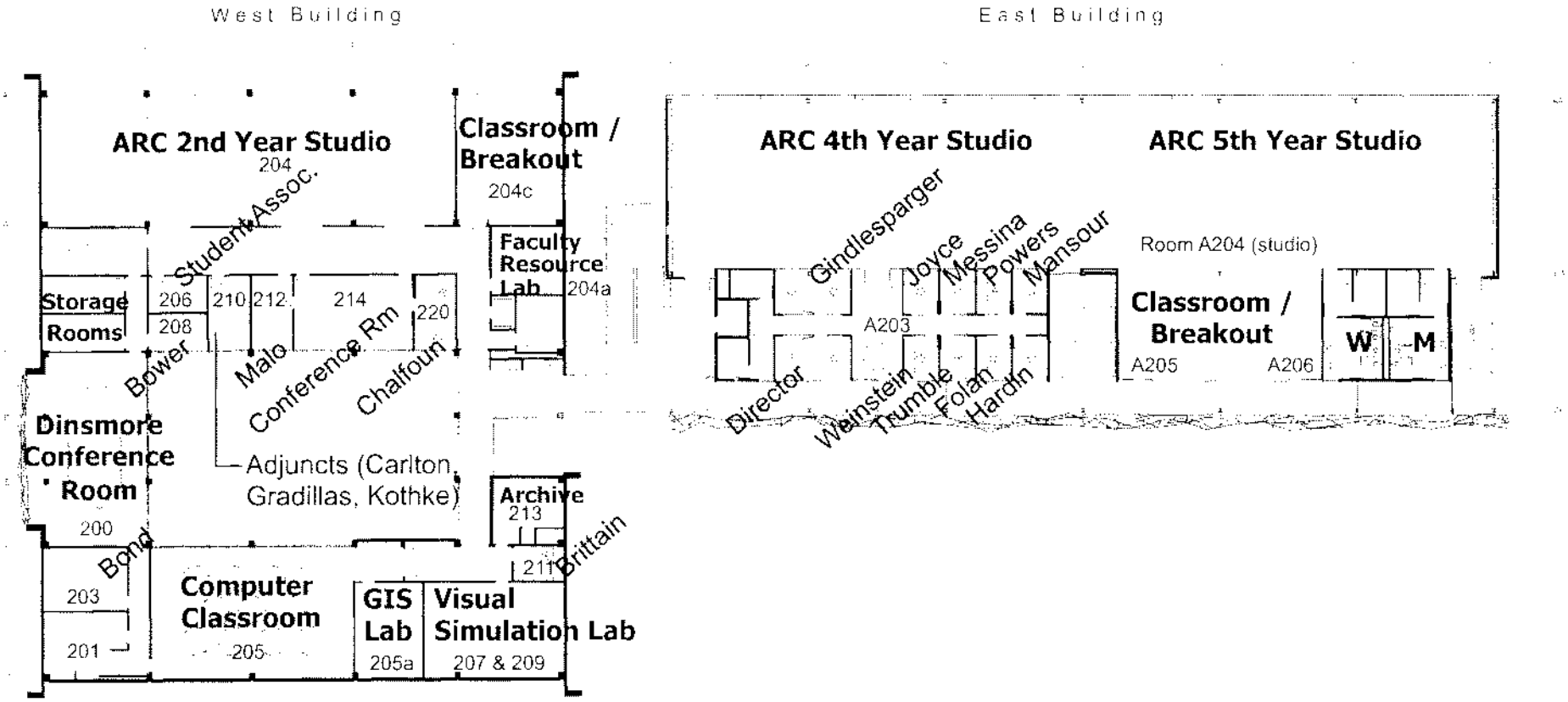
University computer venues include the Multimedia Learning Lab (MML), the flagship multimedia location on the campus with hardware and software for creating 3D animations, virtual realities, complex websites, digital video movies, graphic designs, and digital audio compositions. The Office of Student Computing Resources (OSCR), part of University Information Technology Services (UITS), provides the University community with a wealth of computing resources, including open-access computer labs, technology help desks, and multi-media resources that are located throughout the campus.

College of Architecture & Landscape Architecture
Spring 2009



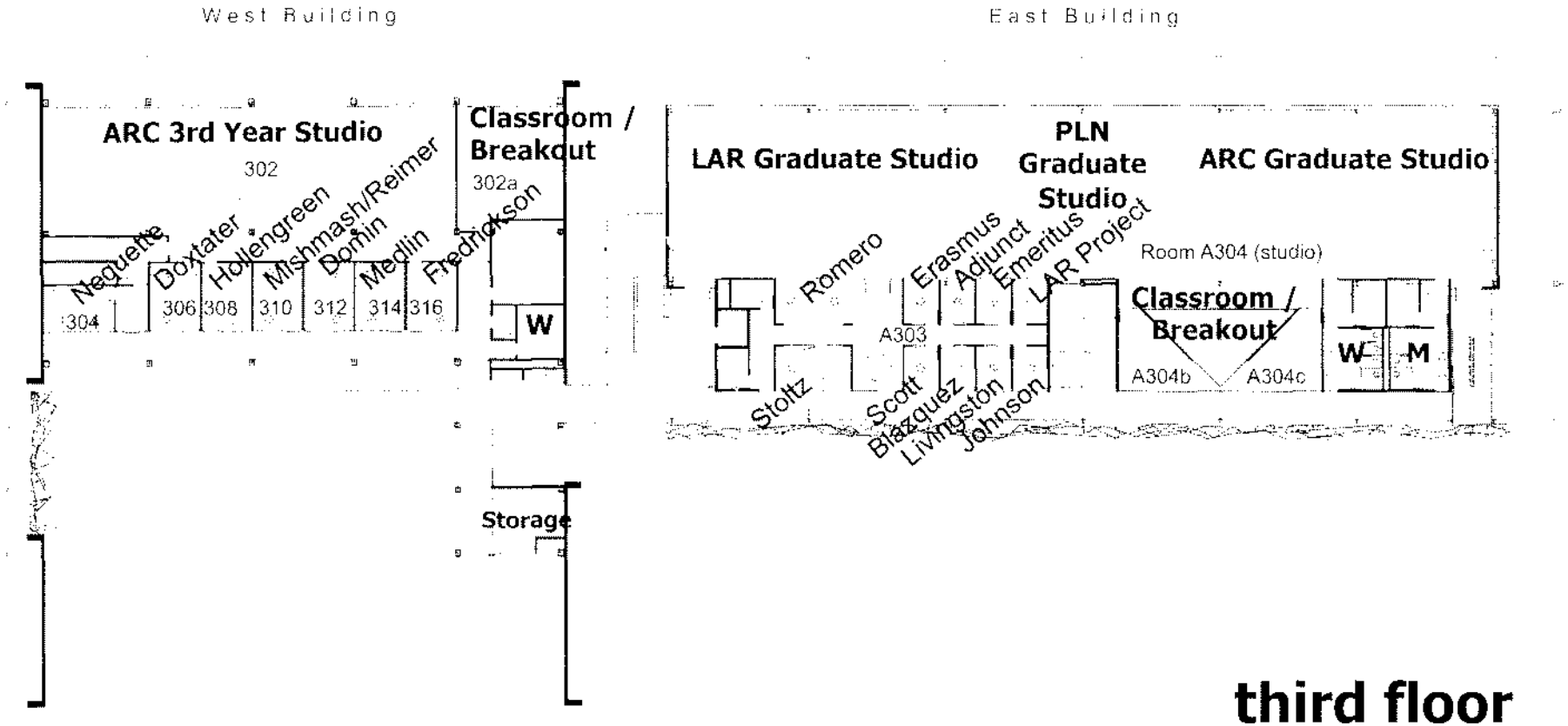
ground floor

College of Architecture & Landscape Architecture
Spring 2009



second floor

College of Architecture & Landscape Architecture
Spring 2009



third floor

College of Architecture & Landscape Architecture
Spring 2009

West Building

East Building

fourth floor

3.9 Information Resources

3.9.1 Library Collections

Context: The Architecture Library was founded in 1965 to serve the predominantly undergraduate, design-oriented population of the College. Transferred from the College of Architecture in 1993, the Architecture Library is now a branch of the University's Main Library. The evolving composition of the collections reflects changes in the Architecture program and curriculum as well as changes in society more generally. The Library continues to collect heavily in the areas of desert architecture, construction systems, and Latin American architecture. 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. The Architecture Library supports 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.

Funding: The library has more than one approval plan in place for purchasing monographs, which generally fulfill the needs of the undergraduate students and faculty teaching and research. Additional funds are used to purchase materials falling outside of the approval plans from foreign publishers and small presses.

Subject Coverage: The Architecture Library's holdings center on the built work of all time periods, styles, and geographical locations, as well as materials regarding professional practice. Materials relating to the history, theory, and criticism of architecture are also an important part of the collection as well as monographs on new and established architects. Holdings include some materials related to construction, engineering, landscape architecture, and planning, but comprehensive collections of these materials are housed in other libraries on campus. In addition to current periodicals and the normal circulating collections, the library contains reference and reserve sections and maintains a collection of theses prepared by graduates of the College for consultation by students and faculty. Videos and DVDs are purchased to cover all aspects of architecture history, design, and professional practice. These are streamed for online access.

Levels of Coverage: Using the American Library Association's Guidelines for Collection Development, the collection focus is at the initial study level. The collection is adequate to support research in the areas of practice, history, theory, and criticism of architecture. An expansion of coverage has occurred in the last three years to include sustainability, design, emerging materials, preservation, and community urban design. The Main Library also has a collection of architectural materials; however, that collection has remained relatively static since the transfer of the Architecture Library into the University system.

Number of Volumes: The Library possesses approximately 19,000 volumes, currently subscribes to approximately 110 periodicals, and purchases approximately 500 new books each fiscal year.

Serials: The serials collection is comprised of over 231 titles. Approximately 110 of those are current. The collection emphasis is on English language and design-oriented titles, although most major Western European titles are included. The Library subscribes to all the indices listed in the 1998 Conditions and Procedures and possesses 65% of the serial titles listed in those indices. This total includes those titles available throughout the University Library system.

Visual Resources and Other Non-Book Resources. The Visual Resource Collection, including slides, videotapes, and Imagen, the Online Multimedia Database, housed outside the Architecture Library and is administered and funded directly by the College, not the University Library. It is staffed by a permanent, half-time curatorial assistant who is supervised by a professional (M.L.S)

curator who shares time between curatorial, administrative, and teaching responsibilities. The Slide Collection contains approximately 40,000 slides with another 15,000 slides that are as yet unaccessioned due to space constraints. Use of the slide collection is restricted to College faculty and graduate teaching assistants with lecturing duties. In order to maintain priority use for teaching faculty members, students are allowed to use slides only under the supervision of a faculty member and then at the discretion of the Visual Resources. Currently, all the visual resources required for course study in the Architecture program are accessible through Imagen (http://www.imagen.arizona.edu/). Space has always been a problem for the growing Visual Resource Collection and it has moved three times in its history. Current plans are to incorporate the Visual Resources Collection into the proposed Libratory, a regional Fine Arts Library now in development. The operations budget for the Visual Resources Collection has increased slightly in recent years to accommodate the increased costs of operating the online visual database, Imagen. Grant-funded projects have allowed a great expansion of the collection without the use of funds in the operations budget. The videotape collection contains approximately 250 videos and is open to faculty and students within the College. The Architecture Library also has a small but growing collection of videos that circulate.

The Library subscribes to ArtStor, a commercial database of nearly a million images online. These include famous historical landmarks as well as images and architectural plans of historical sites past and present. Images from the basic textbooks are included as well as images from major museum collections and private collections (http://www.artstor.org.ezproxy1.library.arizona.edu/index.shtml).

In addition to the Visual Resources Collection, the College administers the Arizona Architectural Archives that is located in an off-campus university archives facility. The Archives were formally established in 1982 and include over 75,000 architectural drawings, photographs, and office records representing the works of various southern Arizona architects dating back to the turn of the 20th century. Notable collections include the works of Henry O. Jaastad, Roy Place, Josias Joesler, William Wilde, Nicholas Sakellar, and Judith Chafee. The Archives, administered by the College's Curator, currently operates without state support and relies on donations to maintain its program of reference referrals, public service, and scholarly research. In the future, the Archives will likely also be housed in the proposed Libratory.

The library has digitized the Joesler plans as part of a program to provide better access to local architects plans and drawings. The images will be available on the library and architecture web pages by July first of this year. Additional plans will be added over time. The Joesler plans will also be added to the commercial database ArtStor which holds nearly 1 million images. This will be part of an collaboration with ArtStor, the Association of Architectural Historians and the University of Arizona Library.

Imagen is the College's online image database containing over 35,000 images of architectural and art objects spanning 50,000 years of human cultural history. The database offers descriptive as well as visual information. Hundreds of new images are added to the database each year. The IMAGEN database is intended to support the teaching, learning, and research needs of the Schools of Architecture, Landscape Architecture, and Art and contains images bearing strict copyright limitations. Access to it is therefore restricted to the faculty, staff, and students affiliated with these schools.

Access: Cataloguing of the print collection is based on the national standards listed in the 1998 Conditions and Procedures and is handled by members of the Technical Services Team at the Main Library. Many materials arrive from vendors already catalogued and shelf-ready. Cataloguing of materials is generally handled in a timely manner. Materials that are not immediately catalogued are accessible, however, at the Main Library. Online access of material is preferred by the library to provide easier access for students and faculty. Serials available

online are subscribed to in preference to print format. The library also has purchased approximately 1164 E-Books on architecture and growing for better access to subject materials. The E-Book collection is an area of growth for the future.

Conservation and Preservation: General mending and binding of print materials is handled at the Main Library; those materials requiring stronger or more extensive binding are sent to a commercial bindery.

Policy Statements: The Library's collection development policy is consonant with the curriculum of the College and is updated regularly to reflect changes. It is available for review at http://library.arizona.edu/branches/architecture/CDpolicy.htm.

3.9.2 Library Services

Reference: The Architecture Librarian is available to provide reference service during posted office hours as well as by appointment and via email. During evenings and weekends, the Library is staffed by student workers who are supervised by a member of the Materials Access Team. An open reference and reserve collection is maintained and students are encouraged to consult the librarian with questions. Through SABIO (http://www.library.arizona.edu/), the online information gateway maintained by the University Library, students have access to the Avery Index to Architectural Periodicals, The Architectural Index, Arizona Digital Sanborn Maps, and the Art Index as well as a variety of interdisciplinary databases including Academic Search Elite (Ebscohost), ArticleFirst, Lexis-Nexis, Expanded Academic Index, PAIS and ABI Inform. In addition, the Architecture Library maintains a home page that announces developments within the Library and includes links to disciplinary specific Internet information resources and offers research help (http://library.arizona.edu/branches/architecture/archpage.htm).

Bibliographic Instruction: The Librarian provides instruction in the use of library resources and information literacy at the request of the faculty or on a one-on-one basis to students who request it. Instruction sessions are usually directly related to a course assignment that requires the students to apply library research skills. However, information literacy and lifelong learning skills are also stressed in bibliographic instruction. Computer labs in the Main Library and the Science and Engineering Library are the setting for most of these sessions, allowing students to engage in active learning in the acquisition of information literacy skills. The library has recently provided a computer lab in the architecture department for bibliographic instruction and classroom use. In addition, the University's new Information Commons, near the Main Library, has an electronic classroom that seats 50..

Access to Collections: If library users cannot find the materials they need in the Architecture Library, they are encouraged to consult the Main and Science and Engineering Libraries or use the Interlibrary Loan service, which may now be accessed electronically through SABIO. The library also provides a service of document delivery for items in the Main or Science libraries. Documents or some parts of monographs are scanned and sent to students and faculty emails. This is a free service as is interlibrary loan.

Circulation: All polices related to circulation are available for review at http://library.arizona.edu/aboutlib/borrow.html.

Convenience: The Library is open 9:00-9:00 Mondays-Thursdays; 9:00-5:00 Fridays; 12:00-4:00 Saturdays; and 1:00-9:00 Sundays. The Library is open to all students, faculty, staff, and interested persons. Borrowing privileges are available to students, faculty, and staff of the University and those who have purchased a community user card available from the Main Library. The Library operates a reserve system by which faculty place books and reference

materials on reserve for their classes (http://www.library.arizona.edu/libresources/reserves.html). Physical reserves are on open shelves and are accessible at any hour the Library is open. These reserve materials circulate for periods from a few hours to a few days, depending on the wishes of the faculty member who placed them on reserve. Alternatively, a faculty member may place materials on electronic reserve; they are then accessible at any hour of the day or night but only to students enrolled within a specific class in a given semester and provided with a password by the instructor.

Current Awareness: The Librarian creates and updates a bulletin board outside the Architecture Library to publicize new books in the collection, which are prominently displayed in the Library. The librarian teaches students and faculty about current awareness services and maintains the architecture research subject pages. New book lists are sent out to all in the School of Architecture every five weeks.

Cooperative Agreements: For full information about the University of Arizona Library's interlibrary loan services, please see http://library.arizona.edu/library/teams/ill/illhome.html.

3.9.3 Library Staff

Structure: The Architecture Library is staffed by a professional librarian, a library specialist, and student workers. The University Library is a team-based organization. Although the librarian and library specialist are members of different teams, they work together closely to ensure the smooth operation of the Library. The library collects reference, circulation, book use, and request data that is analyzed every three months. This data is used to evaluate the collection and services.

Numbers: Fifteen employees work in the Architecture Library, including the librarian, library specialist, and student workers.

Professional Status: The Librarian position requires an M.L.S and is a continuing status (i.e. tenure-track) position within the University. The position of library specialist is classified staff position. There are written job descriptions for each of these positions. The librarian is evaluated by members of the Promotion and Continuing Status Committee within the University Library, which gathers input from the librarian's colleagues within the Library and the College. Ultimate responsibility for evaluation, however, lies with the Dean of the Libraries. The librarian attends faculty meetings and retreats, and participates on faculty committees when appropriate, in order to be informed about developments in the College that affect the library or in which the library can assist. Through the University Library, the librarian is eligible to receive partial compensation to attend up to three professional conferences each year. In addition, the library regularly provides training updates for employees in the areas of teaching proficiency, information literacy, computer skills, and customer interaction skills.

Support Staff: During business hours, a member of the Materials Access Team is available on site or nearby to supervise student employees who operate the circulation desk. A member of the Materials Access Team has an office assignment in the Architecture Library and provides reference assistance to patrons.

Professional Development: The Librarian is an active member of ARLIS/NA and its local chapter, as well as a member of the Association of Architecture School Librarians, and routinely attends conferences and workshops sponsored by these organizations. In addition, the librarian strives to make peer connections with like libraries throughout the area.

Salaries: Library staff salaries are commensurate with those of others with comparable training and experience in the University Library and campus system.

3.9.4 Library Facilities

Space: The location of the Library near the College of Architecture and Landscape Architecture (CALA) is ideal for students and faculty. The collection housed in the Fine Arts Library in the Music Building, part of the Fine Arts Complex and a very short walk from CALA buildings. Some older material has been transferred to the Main library.

The University has begun long-term planning for the creation of a new Fine Arts library that will integrate the collections representing CALA, the College of Fine Arts, the Center for Creative Photography, the University of Arizona Museum of Art, and the University Library system. This new facility will highlight emerging technologies that current campus library facilities cannot support. The new facility will support the needs of students, faculty, research scholars, professionals, and community users, and will include state of the art network connectivity, high quality digitization tools, large capacity and rapid retrieval storage systems, technologically sophisticated presentation spaces, group study areas and viewing rooms, and ready access to library resources such as archives, books, and audio/visual media (such as recordings, videotapes, and films). Preliminary programming for the Libratory was incorporated into the design program for the new CALA addition, ensuring the proximity of CALA's students to the Libratory.

Equipment: The Library provides two coin-operated photocopier, a color photocopier, a microfiche reader, a cassette player/recorder, a desktop electronic magnification system, and slide viewing capabilities. There are 15 computer terminals offering access to SABIO, proprietary databases such as the Avery Index to Architectural Periodicals, and the Internet. The terminals are equipped with CD-ROM drives and DVD drives to enable students to use materials in that format.

Furnishings: There are 8 tables in the reading area at which students may work. Collaboration is encouraged. The library is not considered a quiet area, although consideration for others is encouraged. There are two study rooms for group study available on a first come basis. New furniture, tables and carrels, plus soft lounge chairs were purchased last year.

Security: The Library has a 3M security system for its own materials. There is always a staff member at the desk. The Library has no fire warning or prevention system. At this time there is a written evacuation plan in case of fire; there are no other disaster plans or written emergency procedures.

3.9.5 Library Budget/Administration/Operations

Funds: The funds received by the Library are sufficient to maintain current operations and collections development but they are insufficient for retrospective collection development. Although as more journals are put online the library purchases back files for historical study. The budget is allocated by the University Library's Information Resources Development and Preservation Council, based on a number of factors including number of students and faculty, average price of materials in the world market, and circulation of the collection. The amount budgeted for materials in Architecture has remained relatively static over the last couple of years. A small portion is derived from gifts from alumni. In 2007-2008, the allocated budget was $30,000. This amount includes a serials cap of 40.3%, which means that no more than $10,785 may be spent on serial subscriptions.

Evidence of Planning: The University Library is engaged in an ongoing process of strategic planning for the future. Concrete goals and objectives are developed in which the Architecture Library participates when appropriate. The library collects data on use: circulation, reference needs, faculty requests, new and changing programs within the department, professional changes like

emerging technology and materials. This data is analyzed and the services and allocated budget are adjusted accordingly. The budget has been increased slightly in the last three years.

Intrainstitutional Relationships: In order to develop regional partnerships, the Librarian has spent a day with the librarians and archivists of Taliesin West and another with the head of the Architecture and Design Library at Arizona State University. The librarian will continue to pursue appropriate relationships of this nature.

Efficiency of Operations and Services: The Librarian works with various teams within the University Library to ensure that maintenance and upgrades to computers and facilities are undertaken as necessary.

Participation of Faculty and Students: The University Library formally provides an electronic "report card" form in order to solicit input from its customers. The librarian informally solicits student and faculty input

3.9.6 Library Statistics Report

Library Collection Expenditures

Expenditures	Number of Volumes or Linear Feet	Budget Year Before Last	Budget Last Year	Budget This Year
Books classed in LC-NA or Dewey 720s Other Books	20,620 17,744 (UA)	13,500*	19,000*	30,000*
Periodical Subscriptions—current	101 74 (UA)	4,986*	5,006*	5,206*
Other Serial Subscriptions—total	200 127 (UA)	339*	339*	339*
Microfilm Reels	0			
Microfiche	0			
Slides (not in Library)	55,000	5,000	7,300	7,300
Videos	162	500	1,300	2,000
CD-ROMS	0			
Photo-CDs	0			
Digital Image Files	25,000			
Other Electronic Publications				
Drawings (not in Library)	75,000	0	0	0
Photographs	0	0	0	0
Other (specify)	0	0	0	0
TOTAL		24,325*	32,839*	44,546*

*NB: University Library budget figures for print materials are not broken down according to the two different College disciplines and so figures provided above for architecture purchases alone are estimates.

Library Staff (Full-time Equivalents)

Types of Positions	FTEs Year Before Last	FTEs Last Year	FTEs This Year
Librarians/VR Professionals	1	1	1
Paraprofessionals	.5	.5	.5
Clerks	0	0	0
Student Assistants	1.75	1.75	1.75
Volunteers	0	0	0
Other (specify)	0	0	0
TOTAL	3.25	3.25	3.25

3.10 Financial Resources

3.10.1 The College Context

Despite recent economic woes, the School of Architecture has continued to move forward in its drive for excellence. Several challenges facing the college, however, continue to impact the School of Architecture. First, in fiscal year 2003/04, the Planning department was eliminated from our former College of Architecture, Planning, and Landscape Architecture (CAPLA). This resulted in a loss of approximately $540,000 in college budget, and it eliminated the college's funding for the Director of Drachman Institute, the community service arm of our college that offers significant opportunities for integrative learning to our architecture, landscape architecture and planning students. The college strategically moved a 0.5 FTE faculty line from the School of Architecture plus a 0.5 FTE administrative line from college administration to fill this void. Although this move has resulted in many positive outcomes, it provides a typical example of the college's dilemma in filling critical needs with thinning resources. Ironically, since the fall of 2008, the Planning department has returned to our college. Due to budget cuts, however, the director position for Planning has been eliminated, the administrative assistant position has been reduced to 0.5 FTE, and several faculty lines will need to be restored. In the long run, however, the return of the Planning department into our college will strengthen the School of Architecture as well as our other departments.

In addition, our College has recently faced discussions of reorganization/merger with other colleges on campus. To date, mergers have already begun at the University of Arizona for the College of Social and Behavior Sciences, the College of Science, the College of Humanities, and the College of Fine Arts. All these current colleges will move into one college, beginning fiscal year 2009/10, and be called the "Colleges of Letters, Arts and Sciences". At this juncture, our dean has been successful in deterring any merger, arguing strongly that such a move would do serious injury to our national program rankings (the B.Arch program was recently ranked twelfth in the nation among all public and private schools; the School of Landscape Architecture was recently ranked first in the West), coupled with the fact that any cost savings would be negligible.

3.10.2 Architecture Program Budget

In the past seven years, our college has witnessed cumulative budget cuts of $888,352. Only fiscal year 2003/04 was without a budget cut during this time. In the current fiscal year 2008/09 alone, our college has lost $327,500 (nearly 10% of budget). The School of Architecture's portion of the 2008/09 budget cut was $178,341. In the upcoming fiscal year of 2009/10, we face yet another budget cut that is expected to be an additional 10% or higher. Although we are not alone in these difficult times, as the rest of the nation is in a similar dilemma, the economic impact is chilling. In bracing for future cuts, we project that our college will lose a full-time Assistant Dean, and a half-time Associate Dean. Already our college has lost a full time advisor for undergraduate architecture advising, and a half time position for a Recruitment/Retention Specialist. Discussions are already underway to reorganize our college student services to provide continued student advising and recruitment. Greater faculty involvement in advising will surely be required to help fill this need. However, the dean's number one priority will continue to be the preservation of both schools' academic resources and faculty lines.

In fiscal year 2003/04 program fees were first suggested as a means of recouping lost budget cuts. A proposal for undergraduate program fees was also introduced, but this proposal was later rejected by ABOR. The proposal for graduate students in Architecture, however, was accepted by ABOR and program fees began to be collected starting the fall of 2005/06. The program fees were set at $500 per semester ($1,000 per year) for both first and second year Architecture graduate students and were phased in over a two-year period. Therefore, students who had

entered the program prior to the approval of the program fees, could complete their program without this additional charge. Under the program fee arrangement, 15% of the program fees go to a scholarship pool for use by the School of Architecture, and 10% of the program fees go to a Provost-directed account for administrative charges. The remaining program fees are returned to the school, minus Graduate School waivers awarded to graduate students, and spousal/dependent waivers of employees for students enrolled in our school.

In February 2005, a proposal for undergraduate differential tuition was again proposed. This time it was accepted, and beginning in fiscal year 2005/06 this differential tuition began to be collected. Under this agreement, undergraduate students in the final three years of their professional five-year degree are charged up to a maximum $300 per semester ($600 per year). Similar to the graduate program fee, 15% of the differential tuition goes to a scholarship pool for use by the School of Architecture, and 10% of the differential tuition goes to administrative charges to a Provost-directed account. In fiscal year 2007/2008 approximately $58,000 in new monies were generated from both the undergraduate and graduate fee structure. These monies go towards shop salaries and shop student wages, shop operations (saw blades, files, mask filters, etc.), shop capital equipment, computer lab equipment, printing equipment, and Rapid Prototyping (RPT) accessibility (laser cutter, 3D- printer, load tester, 3D digitizer software maintenance and RPT monitors). In the future, an additional increase in program fees may be necessary. These fees may be necessary to fund faculty salaries and adjuncts.

In December 2006, the college acquired $70,489 in an internal loan to refresh IT needs. These monies were used to purchase servers for student, faculty and administrative needs, computer lab equipment, printers, and faculty PCs. To date, this loan is approximately half paid.

In the summer of 2007, finishing touches were placed on the new building expansion and renovation. Total costs for both the building expansion and the existing building renovation were approximately $12.2 million, with $1.3 million of that total funded through gifts generated by the college.

ARCH. BUDGET CUTS	AMOUNTS
2008/09	178,341
2007/08	52,269
2006/07	21,980
2005/06	16,254
2004/05	31,776
TOTAL	300,620

CALA Budget

BUDGET YEAR	2007-08
Architecture Sub-Total	2,944,173
Landscape Sub-Total	861,838
Drachman Sub-Total	3,029,022
College Admin. Sub-Total	2,095,330
TOTAL	8,930,363

The budget for the 2007/08 year is the total budget for the college, which includes the sub-totals for the four departments. When comparing the present budget with previous budgets, one should be aware that CALA is a multidisciplinary college housing two distinct schools (Architecture and Landscape Architecture) and the Drachman Institute, our vehicle for interdisciplinary teaching and community outreach (the Planning department will again enter the CALA budget beginning in 2008/09). Several college-wide support functions are provided by, and budgeted at the college administrative level, including computer and shop facilities, publications, lecture series, development, and college-level administration. The Drachman Institute is largely funded by grant activities, and many of these grants are either directed or co-directed by School of Architecture faculty. The College Administration sub-total also includes grant activities administered by our Associate Dean, who teaches in the School of Architecture as well. The College Administration sub-total also includes scholarship accounts that serve both the School of Architecture and the School of Landscape Architecture.

School of Architecture Budget - Instruction

BUDGET YEAR	2003-04	2004-05	2005-06	2006-07	2007-08
Personnel	1,723,231	1,818,223	1,901,754	2,088,337	2,092,002
Operations	176,158	130,255	165,247	175,668	186,257
Travel	38,961	40,499	30,201	12,577	16,328
Capital	85,450	61,561	0	22,099	14,674
TOTAL	2,023,800	2,050,538	2,097,202	2,298,681	2,309,261

The largest element in the budget for the School of Architecture is faculty and staff compensation (90.59%). General operating expenses for the school, which includes materials and supplies, non-capital equipment, telephone, postage and printing, etc., amount to 8.07% of the budget. Capital and Travel expenses for 2007/08 were less than 2%. The current budget for

the school represents an approximate 14% increase since the last accreditation. However, this increase has primarily been consumed by increases in employee benefits. Employer Related Expenses (ERE) for (1) faculty & appointed personnel, and (2) classified staff have risen from 19.4% and 20.6% respectively in fiscal year 2003/04, to 27.4% and 42.4% respectively in fiscal year 2007/08.

With the new dean's arrival in 2008/09, the School of Architecture secured new funding commitments as part of the dean's hiring contract. Dean Janice Cervelli has been given approval to hire in two new faculty lines in the School of Architecture, beginning in the fall 2009/10 (faculty searches are currently in process). Each position has a funding of $60,000 and will provide new FTE. In addition, the Provost has given approval to provide $150,000 in funding for a new permanent Director of Architecture. A national search will begin in the fall 2009 for a start date of fall 2010.

3.10.3 School of Architecture Funded Research

2003-2004 AY	$ 74,885
2004-2005 AY	$ 135,339
2005-2006 AY	$166,611
2006-2007 AY	$ 321,653
2007-2008 AY	$229,050
TOTAL	$ 927,538

3.10.4 Endowments

	Balance @ 6/30/08
Dobras - Dean's Fund	$ 93,276
Nevins Lectureship	$
27,280 Architecture Faculty Pool	$ 24,633
Lockard Comm. Design Fellow	$ 31,683
Gourley Prize	$64,215
TOTAL	$241,087

Shared Endowments with other Units

Gayle MacNeil	$14,154
TOTAL	$14,154

3.10.5 Scholarships – Endowments

	Balance @ 6/30/08
Dinsmore Visiting Scholar	$73,288
J. Douglas MacNeil	$39,902
Clark International Travel Scholarship	$24,100
Albanese Travel Scholarship	$26,922
Ware & Malcomb Scholarship	$26,370
Fremming Gordon & Myrtle	$44,543
Lockard, William & Peggy	$27,655
Dobler, David Arch. & Athletic	$31,877
Burlini, Al Scholarship	$13,234
Hudson, Chauncey	$41,092
Hershberger, Robert, Deanne	$27,433

Dinsmore, Phillip FAIA	$34,413
Sakeller Scholarship	$13,352
Seaver Franks Scholarship	$19,981
Arch. Alumni Int'l Student Scholarship	$13,352
Eribes, Richard Scholarship	$19,022
Rald, Carl Scholarship	$26,002
Pombo Scholarship	$11,570
Roy P. Drachman Scholarship	$106,403
Sidney W. Little Scholarship	$25,020
Harold Nason Scholarship	$114,908
Harold O. Reif Scholarship	$39,509
Gertrude Thompson Scholarship	$12,008
M. L. Tophoy Scholarship	$47,651
American Institute Arch.	$10,265
Herreras, E. Scholarship	$43,131
Beck, Beresford E. Memorial Scholarship	$39,069
Walther, David Ryan Memorial Scholarship	$28,713
TOTAL	$980,785

3.10.6 Development Activities

This section discusses monies generated by the Dean, the Director, and the Development Officer in the forms of gifts to the School of Architecture. During the last several years, the major emphasis of CALA development has been raising dollars for the building renovation and new building expansion. In addition, several new scholarship endowments have been solicited, and are currently in place, as evidenced by their appearance in the previous section 9.4 above (Endowments – Scholarships). However, at the time of this report, gift information is available only on a college aggregate level, and not on a school basis. Gift dollars peaked for the college in fiscal year 2007-08, reaching an all time high of $441,526.

2003-04: $ 171,691

2004-05: $ 207,102

2005-06: $276,907

2006-07: $ 296,449

2007-08: $441,526

3.10.7 Per Student Expenditures

This table presents comparative data on annual expenditures per undergraduate student in different professional programs here at the UA. These figures are from a national study known as the "Delaware Study of Instructional Costs and Productivity". The link is: http://www.udel.edu/IR/cost/ The raw data is much too extensive for presentation in this format, but information is available upon request.

University of Arizona Professional Program	Cost Per Student FTE
Professional Program	
Accounting	$10,576
Architecture	$9,300
Civil & Mechanical Engineering	$11,291
Teaching & Teacher Education	$12,427

3.11 Administrative Structure

3.11.1 The University of Arizona

Every ten years the University of Arizona undergoes an institutional accreditation visit that presents an opportunity for the University to conduct a self-examination to ensure high quality education. Institutional accreditation is granted by six regional agencies, one of which is the North Central Association of Colleges and Schools (NCA) at http://www.ncacihe.org/.

The NCA Evaluation Team visited the UA on February 13-16, 2000. The University prepared and submitted to the NCA a comprehensive Self-Study Report that examined the institution. The site visit achieved its purpose of providing evidence that the UA satisfies criteria for continued accreditation, while also identifying areas where the institution could improve. The NCA Evaluation Team recommended continued accreditation for the UA and in September 2000 the NCA formally granted the University of Arizona continued accreditation through 2010. More information about the NCA 2010 Accreditation may be found at http://nca2010.arizona.edu/index.php

Geographically, the University includes the Tucson campus, which is comprised of seven academic colleges, four professional colleges, and four colleges comprising the Arizona Health Sciences Center (which also includes University Medical Center and University Physicians). It also reaches people throughout the state by encompassing the Science and Technology Park; the Cooperative Extension Service with locations throughout Arizona; the Phoenix campus; and UA South, a branch campus in Sierra Vista.

The hierarchy for the School of Architecture (ARC) in the University of Arizona's Administrative Structure is shown below:

University	Robert Shelton, President
| Provost	Meredith Hay, Provost
| | College of Architecture and Landscape Architecture	Janice Cervelli, Dean
| | School of Architecture	Laura H. Hollengreen, Interim Director

The majority of academic programs at the UA are classified as Departments and their respective administrators are classified as Department Heads. Dean Richard A. Eribes sought the designation of School for the two professional programs of CALA to match the designation of similar programs elsewhere in the United States. The Arizona Board of Regents (ABOR) approved the designation in 1998.

3.11.2 The College of Architecture and Landscape Architecture (CALA)

The program in Architecture was originally housed within the College of Architecture, which was a one-department academic unit. In July 1997, the College was expanded to include graduate programs in Planning and Landscape Architecture and became the College of Architecture, Planning, and Landscape Architecture (CAPLA). In 2003, the School of Planning was identified for elimination by the University and was moved to the Graduate College; subsequently, it became part of the Department of Geography and Regional Development. As of January 2009, however, Planning is again a part of the college, under the umbrella of the School of Landscape Architecture and Planning. CALA is one of eleven degree-granting colleges. Each college is a separate administrative unit headed by a Dean and each unit administers its own budget. The current Dean of CALA is Janice Cervelli, FASLA, FCELA.

In addition to the Dean, the College administration currently comprises an Associate Dean, R. Brooks Jeffery, and an Assistant Dean, Susan K. E. Moody. Each of the School Directors administers his or her own budget. Other administrative positions and responsibilities within the College are described in section 3.6.3, Human Resources: Administration.

Other components of the College are the Roy P. Drachman Institute for Land and Regional Development Studies with its own Director, Charles (Corky) Poster.

3.11.3 The School of Architecture – Bachelor of Architecture Program

The accredited professional program in Architecture at the University of Arizona is a five-year Bachelor of Architecture undergraduate program. It has been of this type since its inception in 1958. It is divided into a pre-professional first year, with an average enrollment of 200 students, and an upper four-year professional phase, with a total average enrollment of 200+ students. Admission into the second year (professional phase) is competitive.

The five-year Bachelor of Architecture program bases its pedagogical curriculum on the notion that the study and practice of architecture at Arizona must be expressive of the ethos of *time* and *place*, promoting an intertwined *land ethic ~ aesthetic research* binary. The program is more fully described in section 1.4, Introduction to the Program: Program Mission.

The program is housed in the School of Architecture, headed by its Director. The first Director of the School of Architecture, Alvaro Malo, AIA, was appointed in August 1998. The appointment is typically a twelve-month, full-time position at the rank of Professor with tenure for a period of five years. After one full five-year term as Director and three years of a second term, Professor Malo was removed as Director and Professor R. Larry Medlin appointed in his stead. Professor Medlin served as Director for two years and was succeeded by Associate Professor Laura H. Hollengreen as Interim Director.

3.11.4 Other Programs within the School of Architecture

Joint Bachelor/Master's Program
In order to accommodate graduates from four-year programs, a small number of carefully selected applicants are admitted each year into the Graduate and Undergraduate programs concurrently. These students typically spend two to two-and-a-half to three years completing the requirements for both degrees. Undergraduate requirements are determined by a careful evaluation of each student's transcript. Students must complete all courses required for the five-year B. Arch. degree for which credit has not been transferred from their prior school. The Master's requirements are identical to those in the one-and-a-half year Master's curriculum. In the AY2008-09, there are 13 students enrolled in the joint program.

Master of Architecture Post-Professional Degree Program
The Master's Degree is a post-professional graduate program designed for students interested in gaining sophisticated knowledge in specific areas of architecture. It is based on the proposition that the Sonoran Desert is an incomparable natural and cultural laboratory. Its intention is to provide increased opportunities for architectural research and experimentation intertwining with greater precision the notions of *land ethic* and *aesthetic research*. To accomplish this mission, the graduate program is currently focused on four distinct but thematically integrated areas of study: Design and Energy Conservation, Emerging Material Technologies, Urban Design and Infrastructure, Preservation Studies, and Independent Research Option. Applicants for admission indicating interest in other areas of research will be carefully evaluated to determine the possibility of appropriate faculty and institutional support. The program has an AY2008-09 enrollment of 17 students and is more fully described in section 1.4, Introduction to the Program: Program Mission.

3.11.5 Other Programs within CALA

Master of Landscape Architecture
On July 1, 1997, the Landscape Architecture Program was administratively transferred to the College and is now housed in the School of Landscape Architecture. The Master of Landscape Architecture is offered as a professional degree following a three-year curriculum. Applicants who possess a Bachelor's degree in landscape architecture or a closely related professional field may apply for advanced standing. Students who are admitted with advanced standing follow an individualized program of research and study related to their interests in a particular area of specialization. At present, there are approximately 50 graduate students in the program. The School's current Director is Professor Ron Stoltz, ASLA.

Drachman Institute
Beginning in 1990, the Roy P. Drachman Institute of Land and Regional Development Studies was part of the College of Architecture and it is currently housed in CALA. The Institute carries out funded research and public service projects of relevance to Arizona communities, including the organization of seminars and conferences in the areas of community design, affordable housing, neighborhood planning, land use, and economic development. It is dedicated to the environmentally sensitive and resource conscious development of neighborhoods and communities.

The Drachman Institute focuses its research and outreach activities on the proposition that housing is the building block of neighborhoods and neighborhoods are the building blocks of communities. The work of the Drachman Institute therefore targets the development of demographically diverse neighborhoods, rich in environmental amenities and built from good quality, well-designed, regionally appropriate housing that conserves land, energy, and water. It engages CALA students, staff, faculty, and Arizona citizens in a collaborative, research-based outreach enterprise to make communities throughout the state healthier, safer, more equitable and more beautiful places to live. The Drachman Institute's current Director is Charles M. (Corky) Poster, former Professor of Architecture and Planning.

3.12 Professional Degrees and Curriculum

The accredited professional program in Architecture at the University of Arizona is a five-year Bachelor of Architecture undergraduate program. It has been of this type since its inception. The program is of a 1-3-1 pattern: 1 pre-professional year, a 3-year professional core, and a fifth year of Design Options and a Capstone Project. Admission to the Professional Phase (Second Year) is selective and competitive, with 60 of approximately 100 applicants being admitted yearly. The 3-year core centers on five major areas: Design Studio, Building Technology, Critical Practice, Design Communication, and History/Theory, which provide both breadth and depth to the core requirements. Fifth-year design options vary but typically include historic preservation, community design, computer applications, entrepreneurial architecture, energy conscious design, lightweight structures, desert architecture and behavioral aspects in design. Students' architectural studies are balanced by a University-Wide General Education system and by open elective opportunities.

In January 1994, the Faculty of the College of Architecture voted to require all students entering the professional phase of studies to own their own computers. This policy went into effect in August 1995. We recommend laptop computers on the IBM platform and specifications have been developed to ensure that all students have compatible systems.

The curriculum provides students with a comprehensive understanding of the field of architecture and related disciplines. Graduates are expected to have developed appropriate capabilities to enter practice and to care deeply enough about the field to engage in life-long learning and professional development. The program is focused on the realities, challenges, and opportunities of practice. The curricular structure, the student/faculty ratio, and the overall quality of students and faculty provide an excellent basis for continuing growth and achievement.

Work in the program is conducted in an intellectual climate that promotes inquiry, introduces principles and values, and teaches students to work collaboratively using a common vocabulary. Faculty members bring creative ideas from professional experience and scholarly research into the classroom, providing students with insights into contemporary issues and a range of problem-solving methodologies.

The School of Architecture at Arizona provides a well balanced but highly demanding program of nationally recognized excellence in architectural education. Self-discipline, motivation, and good academic preparation are required for success. Students are expected to cultivate abilities in problem solving, critical thinking, analysis, evaluation, synthesis, and communication. Our goal is the preparation of national leaders in our profession.

3.12.1 Requirements for Accredited Degree

Bachelor of Architecture Recommended Sequence

PREPROFESSIONAL PHASE

Fall 1st Year	# units	Spring 1st year	# units
ENGL 101 Freshman English	3	▫ENGL 102 Freshman English	3
MATH 110 College Algebra	4	PHYS 102 College Physics	3
* **OR** MATH 112 College Algebra	(3)	PHYS 181 Physics Lab	1
MATH 111 Trigonometry	2	▫ ARC 102 Foundation Studio 2	4
▫ ARC 101 Foundation Studio 1	4	*Elective Tier 1 TRAD or INDV*	*3*
Elective Tier 1 INDV or TRAD	*3*		
OR (Foreign Language Deficiency)	(4)		
	15, 16, or 17		14

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall – Admission to School of Architecture)
(Spring - Eng 101 before 102; ARC 101 before 102)

– These courses must be passed with a grade of "C" or better, before advancing to the next level.

* This course may be substituted for MATH 110, depending on Math Readiness Test score. Student must consult with Math advisor prior to registration.

PROFESSIONAL PHASE

Fall 2nd Year	# units	Spring 2rd Year	# units
▫*ARC 201 Design Studio 1-*Composition*	6	▫*ARC 202 Design Studio 2-*Performance*	6
▫ *ARC 221 Building Technology 1	3	▫ *ARC 222 Building Technology 2	3
▫ ARC 231 History 1	3	▫ ARC 232 History 2	3
▫ *ARC 241 Design Communications 1	3	*ARC 227 Architectural Programming	2
Elective – Tier 1 Gender/Ethnicity (INDV or TRAD)	3	*Elective - Tier 1 NATS*	*3*
	18		17

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall - admission to professional phase)
(Spring - ARC 201 before 202 & 227; 221 before 222; 231 before 232)

* These courses should be taken concurrently this semester - they are interrelated and share assignments.

Fall 3rd Year	# units	Spring 3rd Year	# units
▫ *ARC 301 Design Studio 3-*Land Ethics*	6	▫ *ARC 302 Design Studio 4-*Tectonics*	6
▫ *ARC 321 Building Technology 3	3	▫ *ARC 322 Building Technology 4	3
▫ *ARC 341 Design Communications 2	3	▫ ARC 332 History 3	3
*ARC 326 Site Planning	2	*Elective Tier 2 INDV*	*3*
Elective – Tier 1 INDV or TRAD (whichever remains)	3	*OPEN Elective – (level A)*	*3*
	17		18

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 202 before 301; 222 before 321; 241 before 341)
(Spring - ARC 301 before 302; 321 before 322; 232 before 332)

* These courses should be taken concurrently this semester - they are interrelated and share assignments.

Fall 4th Year	# units	Spring 4th Year	# units
▫ *ARC 401 Design Studio 5-*Techniques*	6	▫ *ARC 402 Design Studio 6-*Culture*	6
▫ *ARC 421 Building Technology 5	3	▫ ARC 422 Building Technology 6	3
▫ *ARC 441 Construction Documents	3	▫ ARC 459 Ethics and Practice	2
ARC 471s Urban Form	3	*OPEN Elective (level A)*	*3*
Elective - Tier 2 NATS	*3*	*OPEN Elective (level A)*	*3*
	18		17

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 302 before 401; 322 before 421; 341 before 441)
(Spring - ARC 401 before 402; 421 before 422; 441 before 459)
* These courses should be taken concurrently this semester - they are interrelated and share assignments.

Fall 5th Year	# units	Spring 5th Year	# units
▫ ARC 451 Design Studio 7-*Research*	6	▫ ARC 452 Design Studio 8-*Synthesis*	6
▫ ARC 4xx Capstone Research	3	*OPEN Elective (level B)*	*3*
Elective Tier 2 HUM	*3*	*OPEN Elective (level B)*	*3*
OPEN Elective (level A)	*3*	*OPEN Elective (level B)*	*3*
OPEN Elective (level B)	*3*		
	18		15
		TOTAL UNITS TO GRADUATE	**168**

▫ These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 402 before 451 and Capstone research)
(Spring - ARC 451 before 452; 4xx before 452)
* These courses should be taken concurrently this semester - they are interrelated and share assignments.

OPEN elective (level A) - 100 and 200 level courses (lower division)
OPEN elective (level B) - 300 and 400 level courses (upper division)

3.12.2 General Studies

Entry Requirements
All freshman and transfer applicants under age 22 must satisfactorily complete the Arizona Board of Regents' course work competencies. Refer to the table below for the course work competency requirements and for specific scores and/or courses needed. To make up any course work deficiencies with transferable college courses, see the right-hand column in the table below. A student who has met a subject area in high school does not need to satisfy college course work requirements in that area for admission purposes.

*Academic aptitude as demonstrated by course work competency requirements is one of many factors considered in the review of an application.

High School Competency Requirements

Subject areas	Arizona Board of Regents' Requirements	or ACT scores	or SAT scores	or College course work to make up deficiencies
English Composition Literature 4 units/years composition or literature	English I English II English III English IV	English sub score of 21 or above	SAT Reasoning Test: critical reading score of 530 or above	One 3-credit English course
Mathematics **4 units/years**	Algebra I Geometry Algebra II Advanced Math for which Algebra II is a prerequisite	Math sub score of 24 or above	SAT Reasoning Test: math score of 540 or above	One 3-credit course at the college algebra level or higher
Laboratory Science 3 units/years	one unit from any three of the following: biology, chemistry, physics, earth science, integrated lab science (may include advanced study in one area)	Natural science sub score of 20 or above	SAT Subject Test scores: chemistry — 600 or above; biology—590 or above; physics—620 or above	Three 4-credit lab science courses (only two may be in the same field)
Social Science 2 units/years	One unit of American history; one additional unit from: European/world history, economics, sociology, geography, government, psychology, anthropology	Equivalent not available	SAT Subject Test scores: American history/social studies: 560 or above; European world culture: 580 or above	One 3-credit American history course and one 3-credit social science course
Second language 2 units/years	Two units of the same language	Attain a minimum score on a national standardized language test,such as AP, CLEP Subject Examination, or SAT Subject Test; or earn certified placement into third college-level semester of higher based on an exam given by an accredited institution of higher education; or other forms of verification are available, please call 520.621.3237		One year of study in the same language; includes American Sign Language
Fine Arts 1 unit/year	One unit of fine arts or any combination of two semesters of high school fine arts	NA	NA	One 3-credit fine arts class

Applicants must have an unweighted overall grade point average of 2.0 (A=4.0) in each subject area and may not have more than two deficiencies. Students may not have deficiencies in both math and laboratory science or in the same subject area.

University-wide General Education

General education programs provide breadth of knowledge as a balance and complement to the depth provided by the major. General education is designed to accomplish several goals: first, to afford students the opportunity to learn how different disciplines define, acquire and organize knowledge; second, to provide a basis for an examination of values; third, to develop analytic, synthetic, linguistic and computational skills useful for lifelong learning; and finally, to provide a common foundation for wide-ranging dialogue with peers on issues of significance. Taken together, the experiences of general education encourage the student to develop a critical and inquiring attitude, an appreciation of complexity and ambiguity, a tolerance for and empathy with persons of different backgrounds or values and a deepened sense of self. In short, the goal of the general education program is to prepare students to respond more fully and effectively to an increasingly complex world.

Gen Ed website: http://gened.arizona.edu/gened/general/nutshell.htm

Foundation Courses (20 units)

Mathematics (Math 110 & 111)	6 units
English (English 101 & 102)	6 units
Second Language	8 units or Test at 2nd semester proficiency

Tier 1 Elective Courses (18 units)

Traditions and Cultures	6 units
Individuals and Societies	6 units
Natural Sciences	3 units
Natural Sciences (2nd course is waived & Physics requirement has been substituted)	(4 units)

Tier 2 Elective Courses (9 units)

(Each program chooses 3 of the 4 categories)

Arts	(3 units)
Individuals and Societies	3 units
Humanities	3 units
Natural Science	3 units

One course in a student's degree program must focus on Gender, Race, Class, Ethnicity, or Non-Western Area Studies. This requirement may be filled by a designated Tier One or Tier Two course, or by a designated course taken from another area of the university curriculum, as, for example, in the student's major or minor.

Additional Courses

Architecture Foundation Studios (ARC 101 & 102)

(Basic Design & Descriptive Geometry)	8 units
Open Electives	24 units

3.12.3 Professional Studies

Required Courses: Studio Sequence

ARC 201-- Design Studio I: Composition (6 units)
Description: Making of space by elements in motion and experiments probing the nature of materials. Introduction of spatial elements (line, plane, volume) and tectonic elements (material, arrangement, light).

ARC 202 -- Design Studio II: Performance (6 units)
Description: This course explores relationship of human experience and spatial and formal characteristics of architecture. The studio emphasizes development of design processes including value and goal identification, design concept formation, modeling techniques, and evaluation procedures.

ARC 301 -- Design Studio III: Land Ethics (6 units)
Description: Explores relationship of architecture to site and context. Explores design in relation to issues like topography, climate, vegetation, wildlife, hydrology, historical context, and regional materials. Design sites may include both urban and rural sites.

ARC 302 -- Design Studio IV: Tectonics (6 units)
Description: Design of buildings with emphasis on tectonic assembly and spatial integration.

ARC 401-- Design Studio V: Technology (6 units)
Description: Content and theme will be design and programming of projects which grow and change with systematic clarity. Emphasis on future-oriented problem identification, efficient utilization of resources, the appropriate interface with contextual activities and building systems.

ARC 402 -- Design Studio VI: Urban Form Options (6 units)
Description: Emphasis on urban context of architectural design with issues such as housing, community design, urban design, and urban infrastructure elements (transportation, recreation, education and utilities). Will study city as culture: the city as an environment for well-being.

ARC 451-- Design Studio VII: Research Electives (6 units)
Description: Studio work may include: desert architecture, commercial design, historic preservation, computer aided design, competitions, design/build, entrepreneurial design, architectural programming and evaluation, interdisciplinary studio architecture, planning and/or landscape architecture. All topics may not be offered each year.

ARC 452 -- Design Studio VIII /ARC 452H -- Honors Design Studio VIII: Senior Project (6 units)
Description: Studio-based project demonstrating a synthesis of knowledge or development of theoretical concepts, process and methodology, and definitive resolution of design issues.

Required Courses: Technology Sequence

ARC 221 -- Building Technology I (3 units)
Description: Introduction to the basic principles in structure and materials and methods of construction.

ARC 222 -- Building Technology II (3 units)
Description: Two-module course on the topics: structural elements: force, form, material and connection; elements of environmental control systems and human perception.

ARC 321-- Building Technology III (3 units)
Description: Two-module course exploring technological issues relating to small and intermediate scale buildings (1, 2 and 3-way spans); environmental issues of climate/micro-climate and daylighting.

ARC 322 -- Building Technology IV (3 units)
Description: Integration of building systems.

ARC 421-- Building Technology V (3 units)
Description: Technological issues related to large scale, complex buildings, building code, life safety, design of passive and active environmental control systems.

ARC 422 -- Building Technology VI (3 units)
Description: Simultaneous thinking about site when building in urban context; one- and two-directional structural systems; alternative renewable energy and environmental indoor and outdoor climate modification systems.

Required Courses: Practice Sequence

ARC 227 -- Architectural Programming (2 units)
Description: Programming and design methodologies including problem seeking, goal identification, code search, observation, questioning, relationship diagrams, brainstorming, space allocation, and simulation as techniques for processing information for building design.

ARC 326-- Site Analysis and Planning (2 units)
Description: Introduction to the study of the context in which architecture is developed. Course will introduce students to the second of the pre-design studies essential to the understanding of architecture.

ARC 459 -- Ethics and Practice (2 units)
Description: Standards and values of architectural services and professional project and practice management.

Required Courses: History/Theory Sequence

ARC 231-- History I: World Architecture: Ancient through Medieval (3 units)
Description: Considers the creation, use and interpretation of ancient and medieval architecture from a variety of perspectives: environmental, functional, material, structural, formal, socio-political, and cultural.

ARC 232 -- History II: World Architecture, Renaissance through Modern (3 units)
Description: Considers the creation, use and interpretation of architecture from the fifteenth century through the twentieth from a variety of perspectives: environmental, functional, material, structural, formal, socio-political, and cultural.

ARC 332 -- History III: World Architecture, Modern and Contemporary (3 units)
Description: A study of modern architecture through a critical examination of particular works, in an attempt to locate the duration and effect of the era on the discipline of architecture.

ARC 471S -- Theory and Principles of Urban Design (3 units)
Description: Course provides critical investigation on the evolution of city design in the United States and Europe. Focus is an investigation of the dominant theories and paradigms informing urban design from the renaissance to the 20th century.

Required Courses: Communications Sequence

ARC 241-- Design Communication I (3 units)
Description: Course emphasis is on the development of basic communication techniques for the study and presentation of architectural concepts.

ARC 341-- Design Communication II (3 units)
Description: Course emphasis is on the further development of communication techniques for the study and presentation of architectural ideas.

ARC 441-- Construction Documents (3 units)
Description: The study of the concepts, vocabulary, intent, and skills necessary to understand construction documents. The focus is on the analysis and creation of a set of working drawings that will illustrate the student's mastery of the material.

3.12.4 Electives

NB: Courses shown in italics are still listed in the University of Arizona course catalogue but have not been taught in recent years and in some cases were developed by faculty members no longer at the UA. Although not documented with syllabi in section 4 of this text (Supplemental Information), they have been retained in the list below in case they are adopted/adapted by new faculty members in the future.

House-Numbered Architecture Electives

ARC 491-- Preceptorship (1-3 units)
Description: Specialized work on an individual basis, consisting of instruction and practice in actual service in a department, program, or discipline. Teaching formats may include seminars, in-depth studies, laboratory work and patient study.

ARC 492—Directed Research (1-6 units)
Description: Individual or small group research under the guidance of faculty.

ARC 493-- Internship (1-4 units)
Description: Specialized work on an individual basis, consisting of training and practice in actual service in a technical, business, or governmental establishment.

ARC 493L -- Legislative Internship (1-12 units)
Description: Working experience at the Arizona State Legislature; responsibilities draw upon student's area of major expertise and include preparing written and oral reports, summarizing legislative proposals, and providing information to legislators and legislative committees.

ARC 294/394/494 -- Practicum (1-4 units)
Description: The practical application, on an individual basis, of previously studied theory and the collection of data for future theoretical interpretation.

ARC 299/399/499-- Independent Study (1-4 units)
Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

ARC 299H/399H/499H-- Honors Independent Study (1-3 units)
Description: Qualified students working on an individual basis with professors who have agreed to supervise such work.

ARC 498H-- Honors Thesis (3 units)
Description: An honors thesis is required of all the students graduating with honors. Students ordinarily sign up for this course as a two-semester sequence. The first semester the student performs research under the supervision of a faculty member; the second semester the student writes an honors thesis. (ARC 452H satisfies this requirement for architecture students)

Technology Electives

ARC 461A -- Solar Utilization in the Built Environment (3 units)
Description: Survey of solar energy utilization principles, methods and case studies.

ARC 461B -- Lightweight Construction Techniques (3 units)
Description: Survey of lightweight construction techniques, including pneumatics, tensile membranes, three-dimensional cable nets, grid shells and flexure stiff plates.

ARC 461C -- Tectonic Studies *(3 units)*
Description: *Objective is to gain understanding of relationship between architecture and technology, the interconnection of design, structure and materials. Discussion readings and discussions will focus on contemporary solutions to the perennial issues of craft, expression and honesty.*

ARC 461D-- Computer Energy Analysis (3 units)
Description: A comprehensive course that teaches students energy conservation and passive solar architecture and up-to-date computer energy simulation techniques. The course promotes student-learning through field investigation of existing buildings and/or new design projects.

ARC 461E – Sustainable Design and the LEED Initiative (3 units)
Description: Lectures on advanced passive solar soft technology features fine tune passive architectural designs. Explanation of thermal performance/alternative applications on a base case design. Thermal efficiency/energy cooling/heating loads assessed through computer energy simulation.

ARC 461F – The Nature of Structure (3 units)
Description: Course will investigate structural concepts and characteristics of force, form, material and connection. Natural precedents examined in context of their generative conditions; structural concepts will be distilled, abstracted, developed and altered through construction of physical models/drawings.

ARC 461G—Technology of Ecological Building *(3 units)*
Description: *Explores possibilities, challenges and potentials of low-tech strategies and techniques, like natural ventilation and thermal storage in high-tech applications, focusing on building type of high-rise office tower and possibilities for future high-rise residential buildings.*

ARC 4611 – Materials: Properties and Tests (3 units)
Description: Three modules: (1) materials: classifications, physical properties, phenomenal (aesthetic) properties, and fabrication processes; (2) laboratory tests (probes) for empirical verification; and (3) selection of appropriate materials in the design and production of architectonic functional components (details) – preferably at full size.

History/Theory Electives

ARC 343 -- The Art and Architecture of Ancient Egypt (3 units)
Description: Art and archaeology of the Egyptian civilization from the beginning of the Pharaonic Period to the Alexandrian Age..

ARC 344 -- The Art and Architecture of the Islamic World (3 units)
Description: Introduction to the major forms and styles of Islamic art and architecture to 1500, including the function and meaning of these buildings and objects in Islamic society.

ARC 471B-- Space: A Social Cultural View/American Indian Landscape and Architecture (3 units)
Description: Explores theoretical distinctions between processes of social and symbolic space, i.e. sacred ritual, rhetorical territoriality and local ritual. Extrinsic, expressive forms in architecture and landscape serve social ends and are distinguished from more intrinsic aesthetics. Examine American Indian landscape and architecture as social space, contrasting the traditional with the contemporary.

ARC 471D -- Evaluating Environmental Experience (3 units)
Description: This course concerns the significance of physical settings to immediate human experience. Explores the importance of form to experiences of wayfinding, visual and non-visual aesthetics, task performance, territoriality, and cultural expression.

ARC 471G -- Museums: History, Theory, Design (3 units)
Description: Investigates the architecture of museums and the installation of exhibitions, past and present, as manifestations of contemporary positions on the construction and content of knowledge, the public mission of cultural and scientific institutions, and the framing of visitors' experience.

ARC 471F -- Introduction to Conservation of Cultural Resources (3 units)
Description: An overview of the Historic Preservation movement in America, including discussion of concepts, rationale for and methods of resource utilization, implementation of plans, legislation, etc.

ARC 471J -- The Impact of World War I on Architecture and the Arts (3 units)
Description: Investigates the architecture and art of the decades surrounding World War I as manifestations of a fundamental rupture in mentalité. Topics include the conception of the avant-garde in art and architecture; the emergence of new media, especially film, and their contribution to our visual environment; the demands of industrial efficiency and productivity on design of the city; and the experience of alienation.

ARC 474 -- Field Methods in Environmental Psychology (3 units)
Description: Behavior and man-made or managed environments, with emphasis on objective methods; designed for students having a professional interest in environmental design or management.

Urban Form/Issues Electives

ARC 471I -- Urban Space: History, Theory, Design *(3 units)*
Description: *Investigates a number of cities as historical case studies of issues informing design of urban public space: social construction of space, ethical positions on accommodation of individual and community in the city, role of memory and symbolism in creating sense of place, etc.*

ARC 496D -- Mediterranean Cities in the 15th-16th c.: Cairo, Istanbul, Florence & Venice (3 units)
Description: The development and exchange of scholarly information, usually in a small group setting. The scope of work shall consist of research by course registrants, with the exchange of the results of such research through discussion, reports, and/or papers.

ARC 497I -- Interdisciplinary Studio for Community Design (3-6 units)
Description: The practical application of theoretical learning within a group setting and involving an exchange of ideas and practical methods, skills, and principles.

ARC 497J – Documentation and Interpretation of the Historic Built Environment (3-6 units)
Description: Examines methods to document buildings, districts and cultural landscapes, and methods to interpret historical and architectural significance. Focuses on historical built environments of Greater Southwest including semester-long service-learning projects applying documentation and interpretation methodologies.

ARC 497T – Case Studies in Urban Design (3 units)
Description: In-depth evaluation of contemporary urban design projects in Europe and the United States. Focus is on selected contemporary cases. The kind of urban design projects under investigation will vary.

ARC 497V -- Affordable Housing and Community Development (3 units)
Description: The course focuses on housing and community development issues. Its purpose is to understand the nature of housing development, particularly for the lower income sectors of the community, and its relation to community development.

Communications Electives

ARC 481A -- Advanced Design Communication Applications (3 units)
Description: Two separate modules combine graphic communication techniques taught in earlier courses. Emphasizes use of freehand perspective, orthographic drafting, computer modeling and physical models, then uses computer as a tool to link different outputs into a seamless presentation.

ARC 481B -- Advanced Design Communication (3 units)
Description: Course consists of two separate modules dealing with study of advanced communication theories and their application to architectural communication. Current theories and new technologies including computer graphics, video and interactive multi-media techniques will be discussed.

ARC 481C -- Communicating Design Data (3 units)
Description: Concepts, vocabulary and skills to understand graphic communications in architecture, landscape architecture, and planning. Focus on analysis of information and creation of visual models illustrating mastery of existing material and researching new, emerging forms of graphic communication.

ARC 481D -- Architectural Photography (3 units)
Description: Emphasis on the "daily use" of 35mm equipment and color slide films for self expression, documentation (exteriors/interiors), copy work, scale models and simulation. Introductory hands-on exploration of large format photography with Polaroid film.

ARC 481E -- Architecture in the Mediterranean (3 units)
Description: Develop awareness of architecture, places and spaces in new cultures. Experience uses of space, materials, structural techniques and cultural expression. Highest priority placed on recording new and different experiences emphasizing creativeness, character and expression.

Laboratory Electives

ARC 497A -- Research Methods (3 units)
Description: An interdisciplinary survey of research methods applicable to research in Architecture, Planning, and Landscape Architecture.

ARC 497D -- Design Development for Architectural Interiors *(3 units)*
Description: *This course will focus on the concept of designing public space environments that are compatible with the architecture envelope, context and structure of the building as well as accommodating human needs.*

ARC 497E -- Furniture Design and Construction *(3 units)*
Description: *Introduction to designing, constructing, detailing and finishing furniture. Focus on safety, design theory, craftsmanship, functional requirements, material, and joinery. Use of materials and structure that meet programming/concept criteria for designing/constructing furniture.*

ARC 497F -- Construction Laboratory (3 units)
Description: A laboratory course focusing on materials, craftsmanship, tools, safety, tectonic theories, programmatic and functional requirements of designing, detailing and constructing full scale building components.

ARC 497U – Geometry-Material-Ergonomics (3 units)
Description: This workshop course investigates the topics of geometry, material and ergonomics. Abstract principles, properties and conditions will be creatively employed and integrated through the development of an object designed for human use.

Other Architecture Electives

ARC 497B -- Special Projects in Architecture (1-3 units)
Description: The practical application of theoretical learning within a group setting and involving an exchange of ideas and practical methods, skills, and principles.

Capstone Courses

ARC 496 – Capstone Seminar *(2 units)*
Description: *Directed study focused on the development of the capstone project. Four options corresponding to the four curriculum streams.*

ARC 498-- Senior Capstone (2 units)
Description: A culminating experience for majors involving a substantive project that demonstrates a synthesis of learning accumulated in the major, including broadly comprehensive knowledge of the discipline and its methodologies. Senior standing required.

3.12.5 Distribution of General Studies, Professional Courses and Electives

Architecture Courses

Year	Course	Required content	Elective content
1	ARC 101 – Foundation Studio 1	4	
1	ARC 102 – Foundation Studio 2	4	
2	ARC 201 – Design Studio 1	6	
2	ARC 202 – Design Studio 2	6	
2	ARC 221 – Building Technology 1	3	
2	ARC 222 – Building Technology 2	3	
2	ARC 227 – Architectural Programming	2	
2	ARC 231 – History 1	3	
2	ARC 232 – History 2	3	
2	ARC 241 – Design Communications 1	3	
3	ARC 301 – Design Studio 3	6	
3	ARC 302 – Design Studio 4	6	
3	ARC 321 – Building Technology 3	3	
3	ARC 322 – Building Technology 4	3	
3	ARC 326 – Site Planning	2	
3	ARC 332 – History 3	3	
3	ARC 341 – Design Communications 2	3	
4	ARC 401 – Design Studio 5	6	
4	ARC 402 – Options Design Studio 1		6
4	ARC 421 – Building Technology 5	3	
4	ARC 422 – Building Technology 6	3	
4	ARC 441 – Construction Documents	3	
4	ARC 471s – Urban Form	3	
4	ARC 459 – Ethics and Practice	2	
5	ARC 451 – Options Design Studio 2		6
5	ARC 452 – Capstone Studio		6
5	ARC 498 – Capstone Prep		2
	SUBOTAL Architecture Units = 103	83	20

General Studies

Year	Course	Required content	Elective content
Admission requirement	Language 101		(4)
	Language 102		(4)
1	Eng 101 – Freshman English	3	
1	Eng 102 – Freshman English	3	
1	Math 110 – College Algebra	4	
1	Math 111 – Trigonometry	2	
1	Phys 102 – College Physics	3	
1	Phys 181 – Physics Lab	1	
1	Tier 1 – INDV		3
1	Tier 1 – TRAD		3
2	Tier 1 – Gender/Ethnicity		3
2	Tier 1 – NATS		3
3	Tier 1 – INDV/TRAD		3
3	Tier 2 – INDV		3
3	OPEN Elective (level A)		3
4	Tier 2 – NATS		3
4	OPEN Elective (level A)		3
4	OPEN Elective (level A)		3
5	Tier 2 - HUM		3
5	OPEN Elective (level A)		3
5	OPEN Elective (level B)		3
5	OPEN Elective (level B)		3
5	OPEN Elective (level B)		3
5	OPEN Elective (level B)		3
	SUBTOTAL non-arch = 64	16	48 (+8)

SUMMARY

	# units	Required units	Elective units
Architecture	103 (61.7%)	83 (80.6%)	20 (19.4%)
Gen Ed	64 (38.3%)	16 (25%)	48 (75%)
TOTAL	167 (100%)	99 (59.3%)	68 (40.7%)

The percentage of Architecture courses in the curriculum, at 61.7%, is very slightly higher than that recommended by NAAB guidelines. However the existing curriculum allows an adequate number of electives to permit students to pursue a non-architecture Minor in addition to the broad range of knowledge afforded by the General Education curriculum.

3.13 Student Performance Criteria

• *Understanding*—means the assimilation and comprehension of information without necessarily being able to see its full implication.

• *Ability*—means the skill in using specific information to accomplish a task, in correctly selecting the appropriate information, and in applying it to the solution of a specific problem.

The accompanying matrix indicates which required courses and which electives are deemed to satisfy the following performance criteria. The contributing curriculum streams are as follows: Design Studio, Building Technology, Critical Practice, Design Communication, History/Theory. Mission Statements for each of these streams precede the course syllabi in section 4.3, Supplemental Information Course Descriptions.

1. Speaking and Writing Skills
Ability to read, write, listen, and speak effectively

Representation and communication have always been major strengths of the program. Students are expected to write and speak well. These skills are developed throughout the program and through University-wide General Education and Foundation Composition requirements. History and theory courses at all levels of the curriculum place particular stress on verbal and writing skills. ARC 332 is a required course that satisfies the university's Upper Division Writing Requirement. All studio design projects are presented orally and students are critiqued on their verbal presentations as well as their communication skills in other media; some design studios incorporate a written component. For their Capstone project, students are required to develop a written proposal of their project over the course of the Fall semester of the fifth year for submission to their chair and sometimes the instructor of ARC 498 or the Capstone Coordination Committee (depending on the particular year); the statements made in the proposal are then honed over the course of the year.

2. Critical Thinking Skills
Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards

Students are required to think critically and to express themselves clearly at all levels and in all media of expression. University General Education requirements also seek to inculcate a habit of critical judgment and effective communication, particularly in writing.

3. Graphics Skills
Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process

Representation and communication have always been major strengths of the program. Students are expected to draw well. Design Studios as well as supporting Design Communication and Critical Practice courses, are intended to teach students how to select and execute techniques consistent with their designs and the intellectual premises underlying them. Acquisition of basic graphic skills begins in the first year with ARC 101: Foundation Studio and ARC 102: Foundation Studio II. Refinement of those skills continues in ARC 241: Design Communication I and ARC 341: Design Communication II and throughout the program with advancing levels of complexity for both

the conceptualization and communication of design ideas. Instruction in computer technology begins in the second year and is intertwined with studio instruction. Computers are now used extensively by students in all types of courses and at all stages of design.

4. Research Skills
Ability to gather, assess, record, and apply relevant information in architectural coursework

Students are introduced to methods of identifying, analyzing, ordering, and synthesizing the many parts of architectural problems. Problem identification, data gathering and analysis, and program writing are regular parts of many support courses and some studios.

5. Formal Ordering Systems
Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design

To be able to design thoughtful buildings and urban spaces that demonstrate a thorough, deliberate, and creative sense of order in response to physical and cultural context is a major goal of the design studios. They are supported in this endeavor by the required courses in History and Theory and by many electives across the curriculum.

6. Fundamental Design Skills
Ability to use basic architectural principles in the design of buildings, interior spaces, and sites

7. Collaborative Skills
Ability to recognize the varied talent found in interdisciplinary design project teams in professional practice and work in collaboration with other students as members of a design team

8. Western Traditions
Understanding of the Western architectural canons and traditions in architecture, landscape and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them

Many of the required and elective history and theory courses are focused on western traditions, seen as a cultural matrix where larger physical and societal conditions inform the design of the built environment. Virtually all of the history and theory courses are interdisciplinary in approach, making use of sources and local experts from a wide variety of disciplines. The two General Education courses offered by the School (TRAD 103 Architecture and Society and TRAD 104 Sonora: A Description of Place in Arid America) fulfill University-wide distribution requirements in Traditions and Cultures. In addition, the Preservation Studies certificate program at the graduate level also regularly enrolls undergraduates in its courses.

9. Non-Western Traditions
Understanding of parallel and divergent canons and traditions of architecture and urban design in the non-Western world

The required architectural history and theory survey courses all contain non-Western content, as does the successor course ARC 332 focused on modern and contemporary architecture. In elective courses, the architecture of arid regions around the world (particularly in Pre-Columbian and Latin America and in the Middle East) receives major emphasis.

10. National and Regional Traditions

Understanding of national traditions and the local regional heritage in architecture, landscape design and urban design, including the vernacular tradition

National and regional traditions are an important topic in almost all of the required History/Theory courses and play a major role in the many of the electives in that curriculum sequence as well. A number of studio courses also invoke them as a point of departure or a topic for research in developing specific projects that are sensitive to the local physical and cultural context of the Sonoran Desert

11. Use of Precedents

Ability to incorporate relevant precedents into architecture and urban design projects

Analytical exercises in many courses, including virtually all studio classes, require the assessment of exemplary buildings as a basis for reflection, self-criticism, and the evaluation of design proposals. This activity is addressed throughout the studio sequence and finally tested in the fifth-year Capstone project.

12. Human Behavior

Understanding of the theories and methods of inquiry that seek to clarify the relationship between human behavior and the physical environment

All five curriculum streams in Architecture foster an awareness of human behavior in space and the nature of the physical environment. Synthesis of this material occurs primarily in the design studios where projects often center on natural or urban settings in which geography, ecology, and culture together condition the development of program and design. In addition, particular faculty have developed specific programs, particularly in the advanced studios and the Critical Practice sequence, that are focused on housing and community institutions, as well as social and behavioral goals for design evaluation. Examination of social/behavioral research, client and user interviews, and direct observation of behavior are routinely employed in the studio sequence, as well as several focused seminars.

13. Human Diversity

Understanding of the diverse needs, values, behavioral norms, physical ability, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity for the societal roles and responsibilities of architects

The social context for architecture is developed through General Education courses as well as School of Architecutre History/Theory courses and open elective offerings that examine human culture and behavior. This area of study explores social and political institutions and systems of belief and values in relation to material culture and the formation of the built environment. General Education requirements are categorized into two Tiers, in each of which students must take courses in the Fine Arts, Humanities, Social Sciences, and Natural Sciences. In the Architecture curriculum, students take four required history and theory courses. Beyond the walls of the university, the local context is a rich laboratory in which to study issues of diversity.

14. Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities

In all design studios, students are required to translate hypothetical client requirements and use activities into a program of space and facility needs. Students assume increasing responsibility for programming issues in the upper years of the program, culminating in the development of a

program for their Capstone project. All students are exposed to specific exercises in ARC 227 Architectural Programming, that illustrate the design challenges of and responsibilities to special populations. This is further reinforced with the study of code requirements in ARC 441 – Construction Documents.

15. Sustainable Design

Understanding of the principles of sustainability in making architecture and urban design decisions that conserve natural and built resources, including culturally important buildings and sites, and in the creation of healthful buildings and communities

Both semesters of third-year design studio are devoted to sustainable design. Studio sections and projects are regularly focused on rehabilitation, preservation, conservation, and adaptive reuse. We are located in the environmentally unique desert Southwest and the program has been fashioned to take full advantage of this context. We have a long tradition of educational experience that seeks an understanding of desert architecture and sustainability. Issues of sustainability and solar design have been the subjects of numerous topic studios and are at the core of several elective offerings. A majority of the faculty are active practitioners who bring to the classroom lessons of context and fit emanating from real environmental situations.

16. Program Preparation

Ability to prepare a comprehensive program for an architectural project, including assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and assessment of their implication for the project, and a definition of site selection and design assessment criteria

17. Site Conditions

Ability to respond to natural and built site characteristics in the development of a program and the design of a project

Courses throughout the curriculum utilize the arid Southwest, both rural and urban settings, as am laboratory for project investigations. Before they embark on site development studies beginning in the second year, students are introduced to procedures for detailed site analyses, pertinent traditions and technologies, and theories of placemaking. The appropriateness of a site for a specific development and the ability of the existing infrastructure to sustain new development require an understanding of growth, change, and environmental impact. Most studio courses include site evaluation and selection exercises. Elective courses that focus on these issues are offered regularly in the School of Architecture and in the related disciplines of Planning and Landscape Architecture.

18. Structural Systems

Understanding of principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems

Technical knowledge is fostered via classroom lectures and workshop experimentation and testing. This knowledge is incorporated into work in the design studios. Second-year studios often require the development of structural systems models. Third-year studios regularly require students to demonstrate structural and mechanical systems concepts and integration and construction systems and materials selection.

19. Environmental Systems

Understanding of the basic principles and appropriate application and performance of environmental systems, including acoustical, lighting, and climate modification systems, and energy use, integrated with the building envelope

Technical knowledge is imparted in the design studio ARC 401 – Technical Systems Integration and in courses dealing with environmental controls and building construction and in the entire Technology sequence. Environmental issues and concerns are introduced in the second year of the curriculum in four required courses. Opportunities for further study are provided by upper-division electives. Relevant issues may also be covered in required and elective science courses, including four units of physics and six units of mathematics. This specific knowledge is then applied and synthesized in the design studios.

20. Life Safety

Understanding of the basic principles of life-safety systems with an emphasis on egress

Human factor issues are addressed in programming and behavioral electives. Technical knowledge is imparted in the design studio ARC 401 Technical Systems Integration and in courses dealing with environmental controls and building construction.

21. Building Envelope Systems

Understanding of the basic principles and appropriate application and performance of building envelope materials and assemblies

22. Building Service Systems

Understanding of the basic principles and appropriate application and performance of plumbing, electrical, vertical transportation, communication, security, and fire protection systems

23. Building Systems Integration

Ability to assess, select, and conceptually integrate structural systems, building envelope systems, environmental systems, life-safety systems, and building service systems into building design

Progressively more complex topics are introduced into the design studio and require increasingly higher levels of systems integration, culminating in the required design studio ARC 401 – Technical Systems Integration. Material from required technical and theory courses is brought together as the student moves through the design sequence. Since many faculty members are practicing professionals, they are able to bring to the classroom personal lessons of design judgment that add an additional level of insight for students.

24. Building Materials and Assemblies

Understanding of the basic principles and appropriate application and performance of construction materials, products, components, and assemblies, including their environmental impact and reuse

Architectural tectonics and building materiality are addressed in numerous courses, including design studios, technical classes, and behavioral/programming classes.

25. Construction Cost Control

Understanding of the fundamentals of building cost, life-cycle cost, and construction estimating

Courses in the Critical Practice sequence introduce the economic dimensions of architectural practice, including project management, finance, and feasibility issues. Students generate program and budget information and study the application of standard contracts. Extensive inclusion of local practitioners often focuses some discussions in this area during reviews.

26. Technical Documentation

Ability to make technically precise drawings and write outline specifications for a proposed design

The curriculum is designed to help students acquire the ability to convey the intent and character of their architectural work to a range of audiences. Graphic representation, physical model building, and digital modeling are all considered important ways to develop, critique, and communicate ideas during the design process. Design communication is explored not only as a means of representation, but also as a means of analyzing and understanding objects and phenomena. The integration of emerging material technologies has been a programmatic priority. By the time they begin their Capstone project, students possess the knowledge to select from numerous means and methods of communication. Voluntary internships supplement traditional classroom delivery with practical experience.

27. Client Role in Architecture

Understanding of the responsibility of the architect to elicit, understand, and resolve the needs of the client, owner, and user

28. Comprehensive Design

Ability to produce a comprehensive architectural project based on a building program and site that includes development of programmed spaces demonstrating an understanding of structural and environmental systems, building envelope systems, life-safety provisions, wall sections and building assemblies and the principles of sustainability

A fundamental objective of the B.Arch program is the development of each student's ability to identify basic project purposes and goals, and to use appropriate strategies for developing responsive, evocative, and meaningful designs. Design education develops the ability of the student to synthesize social, environmental, technical, and aesthetic considerations into a cohesive and unified architectural entity and includes an understanding of practice and product. Eight semesters of design studio are required in the professional phase of the program and they focus on increasingly complex projects as students' knowledge increases with the help of supporting coursework. Comprehensive design is best attested by work in ARC 302 and 401. Courses in the Critical Practice sequence also regularly address these issues and inclusion of local practitioners as critics in design reviews often focuses discussion in this area during reviews.

29. Architect's Administrative Roles

Understanding of obtaining commissions and negotiating contracts, managing personnel and selecting consultants, recommending project delivery methods, and forms of service contracts

In the Critical Practice sequence, Arc 441 -- Construction Documents has been overhauled to provide students with a clearer understanding of the creative potential of construction documents. Standard AIA contracts including general conditions and agreement

forms are introduced and utilized. Many students participate in internship opportunities that also expose them to the preparation of contracts and other documentation of professional practice.

30. Architectural Practice

Understanding of the basic principles and legal aspects of practice organization, financial management, business planning, time and project management, risk mitigation, and mediation and arbitration as well as an understanding of trends that affect practice, such as globalization, outsourcing, project delivery, expanding practice settings, diversity, and others

The various individuals, groups, and disciplines that contribute to the architectural process and methods of coordinating and managing them are discussed. Office structure and management, as well as project administration, are subjects treated in ARC 459 – Ethics and Practice. Lectures and case study presentations, as well as field trips to various offices, provide awareness of the various individuals, groups, and disciplines that contribute to the practice of architecture. Further understanding is a result of internship opportunities in which many students participate. Students are introduced to the complexity of the building process and the liability and risk factors inherent in that process.

31. Professional Development

Understanding of the role of internship in obtaining licensure and registration and the mutual rights and responsibilities of interns and employers

Internships provide students with an opportunity to observe the daily workings of an architectural firm. Students are encouraged to visit offices and construction sites throughout their five-year program. Many of faculty members are practicing architects who provide numerous opportunities for interaction.

32. Leadership

Understanding of the need for architects to provide leadership in the building design and construction process and on issues of growth, development, and aesthetics in their communities

Students are introduced to the concept of the architect as a professional who provides a variety of services. Emphasis is given to understanding the spectrum of traditional and non-traditional services. Opportunities to learn about specific practice responsibilities and service are available through the Practice sequence. Lectures, as well as case studies presented by a variety of architectural firms, treat roles of architects and other consultants in both traditional and non-traditional arrangements. In addition, the architect's responsibility to society is regularly an aspect of design review discussions. Ethical issues are frequently discussed in design studios in relation to the development of programs and project intentions, and in discussion about service to the clients and the public.

33. Legal Responsibilities

Understanding of the architect's responsibility as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, historic preservation laws, and accessibility laws

Specific legal responsibilities and cases are presented in lectures and case studies in the Practice sequence, especially ARC 459 – Ethics and Practice, which addresses licensure, contracts, pre-design professional services, and contract administration. Throughout the design studio curriculum, students are presented with information about and are asked to incorporate understanding of the public policies, codes, regulatory agencies, and liability that affect the

practice of architecture. Building codes are also discussed in Structures classes. The internship and office visit program of the local chapter of the AIA supplements this coursework.

34. Ethics and Professional Judgment
Understanding of the ethical issues involved in the formation of professional judgment in architectural design and practice.

Ethical issues are discussed throughout the curriculum with the goal of fostering students' critical judgment in the development of an ethical stance in architectural design.

13 Environmental Conservation
Understanding of the basis principles of ecology and architects' responsibility with respect to environmental and resource conservation in architecture and urban design

1 Student Progress Evaluation

1.1 Transfer Credit and Advanced Placement

Transfer Students (B.Arch. program)

Students who are not transferring from an accredited architecture program are not admissible directly into the Professional Phase. These students are required to complete the Foundation studio sequence - ARC 101 and ARC 102 - and to mount an exhibit of work as part of the formal application process to second year. About one third of the students in the pre-professional first year have already completed a year or more of college.

Transfer credit for architecture courses from community colleges or university programs not accredited by NAAB is normally allowed as elective credit only. Transfer credit for non-architecture courses may be used to fulfill General Education requirements (Math, English, Physics, Tier 1 and Tier 2 electives) or open electives. Equivalencies are determined by the Academic Advisor and/or the Assistant Dean.

Advanced Placement (B.Arch. program)

Each year the School receives numerous requests from students seeking to transfer into the program with advanced placement. Because of the limited number of places available, this is rarely possible. Usually, no more than one or two students, if any, are allowed to enter the program in the second or third year. Only students with exceptional credentials who are prepared to make a strong contribution to the program are considered for advanced placement. Transfer credit for required architecture courses is allowed only for comparable courses taken in programs accredited by the National Architectural Accrediting Board (NAAB). Equivalencies are determined by the Assistant Dean.

Advanced Placement (Joint B.Arch/M.Arch program)

In order to accommodate graduates from four-year programs, a small number of carefully selected applicants are admitted each year into the Graduate and Undergraduate programs concurrently. These students typically spend two to two-and-a-half years completing the requirements of both degrees. Remaining undergraduate requirements are determined by a careful evaluation of each student's transcript and the corresponding course descriptions obtained from print catalogues or websites. Students must complete all courses required for our five-year B. Arch. degree that have not been transferred from their prior school. Equivalencies are determined by the Assistant Dean.

1.2 Policies and Standards

Pre-professional Admission Standards

Because the School of Architecture is a school of national standing and has more applicants than can be accommodated, admission standards for the School are higher than those of most other programs of the University. Because this is a land grant University, requirements are also significantly higher for out-of-state students. Evaluation of students begins with the admission process. Our current agreement with the Office of Admissions has established the following admission guidelines. Students are admitted if they meet one of the criteria.

Non-Resident Freshmen
3.3 GPA, 1100 SAT/1180 RSAT, 26 ACT, Top 20% of class
Resident Freshmen
3.0 GPA, 1010 SAT/1110 RSAT, 24 ACT, Top 25% of class
Non-Resident Transfer Students
3.25 GPA (32 or more units of College/Community College work)
Resident Transfer Students
3.0 GPA (32 or more units of College/Community College work)

Students presenting credentials within 10% of those listed above are reviewed by the Assistant Dean and some of those students are also admitted.

Professional Phase Admission

At the end of the first year, students must apply for admission to the upper years. Professional Phase admission occurs only once per year in the summer for students entering the Professional Phase in August. Those who have completed all required courses in the Pre-professional year of study and eliminated any identified deficiencies in their high school records may apply to the Professional Phase. Because the number of applicants admitted to the Professional Phase is limited by the resources of the College, admission is selective and competitive. Approximately 50 of a pool of 70-100 applicants are admitted each year. Admission to the Professional Phase is based upon a cumulative GPA at the UA (a UA GPA above 3.0 is normally required) and students are ranked according to the following formula:

Exhibition of creative work	90.0 points
Score on written essay	10.0 points
Arizona residency	2.5 points

The top 43 students are automatically admitted and the remaining 5 – 7 are chosen from the pool at the Dean's and the Admission Committee's discretion. The average GPA of admitted students is about 3.4.

Grading Systems

The following policy for grading in School of Architecture courses was passed at a faculty retreat on January 8, 2001:

Each faculty member or faculty team, in team taught courses, must establish student performance standards by defining and publicizing what is meant by each letter grade in the letter grade sequence (i.e., A - Excellent, B - Good, C - Satisfactory, D - Unsatisfactory, and E - Unacceptable). These definitions are to be determined in relation to the objectives of the course in which the grades are assigned. All students in the course must be evaluated according to the same grade scale.

The University of Arizona grading system is as follows. It is based on a 4.0 scale.

A*	-	Excellent =	4.0
B*	-	Good =	3.0
C*	-	Fair =	2.0
D*	-	Poor =	1.0
E*	-	Failure =	0.0
P	-	Passing (Special S/P and P/F grade)	
F	-	Failure (Special P/F grade)	
S	-	Superior (Special S/P grade)	
I	-	Incomplete	
K	-	Course in progress	
W	-	Approved withdrawal	
O	-	Audit	
CR	-	Credit	

*Included in calculation of the grade-point average

Students receive grades in all courses. P, F & S grades are used only in independent study, internship, or practicum courses. Students may request to take a course on a Pass/Fail basis but this is allowed only for the 6 credits of open elective. All other courses, required and elective, must be taken for a grade.

Advancement Policies

The policy for general advancement as stated in the on-line catalogue: *For advancement in any particular course sequence in the professional phase, individual course prerequisites must have been satisfied, and a cumulative grade-point average of 2.000 or better must have been maintained for the preceding academic year. For advancement to the final year, the student must have completed all requirements in the lower years.*

The policy for advancement in studio was passed at a faculty retreat on January 8, 2001: *Students must maintain a studio grade average of 2.0. Students falling below an average of 2.0 shall be placed on studio probation and have one semester to raise their average to a 2.0. If after that semester a student has failed to raise his or her average to a 2.0, he or she may not advance in studio until the studio grade point average is 2.0 or higher".*

The University has a Grade Replacement Option, which allows students to replace up to 3 classes or 10 units by retaking courses in which grades of "C", "D", or "E" were earned.

Monitoring Student Progress

Students receive a grade in each course, including design studios. A student's grade point average becomes a good indicator of his or her progress. Faculty members are usually pro-active with students who are not doing well in their classes and discuss with them the need and the means for improvement. This is particularly true in design studios where faculty closely monitor student progress.

The following policy for feedback in studio was passed at a faculty retreat on January 8, 2001: *At the end of each semester, each faculty member will provide written comments to his or her students relating grade criteria to each student's grade in studio. Comments should address the student's design process and skill development, and should include suggestions for improvement. Written comments should be included in a class binder.*

Many faculty members meet individually with each student at the end of the semester to discuss his or her performance and progress. Students having difficulty will normally have had several such conversations during the term. Students also regularly seek the advice and assistance of the

Academic Advisor, their Faculty Mentor, or other faculty members with whom they have good rapport.

Probation and Disqualification Policies
Students failing to maintain a grade point average of 2.0 are placed on academic probation and are subject to restrictions as imposed by the Assistant Dean's Office. Because of the rigor of the Professional Phase admission process, few, if any, Professional Phase students are on probation.

Students who are placed on probation and fail to attain a 2.0 GPA in the following semester or raise their cumulative GPA to a 2.0, may be disqualified from the College. In practice, if students demonstrate substantial improvement but fall short of the 2.0 cumulative GPA, their probation is extended. If disqualified, a student may return after a minimum of one semester but only with the permission of the Dean and only upon evidence that he or she is capable of academic success. This is normally demonstrated by completing several courses at a community college or another university. Students disqualified more than once are not normally re-admitted. Students disqualified from CALA may, upon written permission of the receiving Dean, be accepted into a different College.

Very rarely, in cases where students might be subject to undue hardship, exceptions are made to these standards and policies by the Student Affairs Committee or by the Assistant Dean's office.

Graduation
Students are awarded the B. Arch. degree in the December or May following verification of the successful completion of all requirements for the degree. The degree check process is begun in the penultimate semester by the Academic Advisor who meets with each student to discuss progress and to ensure that the student is aware of all remaining requirements. The SAPR (Student Academic Progress Report – a personalized online course tally) and an adjustment sheet on which transfer course substitutions are made, are forwarded to the University Graduation Services office for final approval. The diploma is issued by the Graduation Services Office.

NAAB PERFORMANCE CRITERIA

REQUIRED COURSES MATRIX

	Criterion #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
ARC 101	FOUNDATION STUDIO 1			●		●																													
ARC 102	FOUNDATION STUDIO 2					●																													
ARC 201	DESIGN STUDIO 1: COMPOSITION					■						●																							
ARC 202	DESIGN STUDIO 2: PERFORMANCE						●						●	●	●																			●		
ARC 221	BUILDING TECHNOLOGY 1																		●						●										
ARC 222	BUILDING TECHNOLOGY 2												●			●			●	●					●										
ARC 227	ARCHITECTURAL PROGRAMMING			●	●								■	■	■		●				●							●							
ARC 231	HISTORY 1: WORLD ARCHITECTURE	●				●			■	■				●																					
ARC 232	HISTORY 2: WORLD ARCHITECTURE	■			●	●			●		●		●	●																					
ARC 241	DESIGN COMMUNICATION 1			■		●		●																											
ARC 301	DESIGN STUDIO 3: LAND ETHIC						●									●	●	■		●													●		●
ARC 302	DESIGN STUDIO 4: TECTONICS						■										■	●	●			●		●	●				●						
ARC 321	BUILDING TECHNOLOGY 3										●		●			●			●	●		●			●									
ARC 322	BUILDING TECHNOLOGY 4																	●	●			■			■									
ARC 326	SITE ANALYSIS AND PLANNING				●											●		●															●	●	
ARC 332	HISTORY 3: WORLD ARCHITECTURE	●	■						●	●	■					●																		
ARC 341	DESIGN COMMUNICATION 2			■		●		●																											
ARC 401	DESIGN STUDIO 5: TECHNOLOGY											■				■	●	●	●	●	●	●	●	■	●				■						
ARC 402	DESIGN STUDIO 6: OPTIONS STUDIO																																		
ARC 421	BUILDING TECHNOLOGY 5							●				●				●				■	●	●	■	●	●										
ARC 422	BUILDING TECHNOLOGY 6		●					●											■																
ARC 441/541	CONSTRUCTION DOCUMENTS			●	●			■							●						■			●	●		■						●	
ARC 451	DESIGN STUDIO 7: RESEARCH ELECTIVES																																		
ARC 452	DESIGN STUDIO 8: SENIOR PROJECT	●	●		●																														
ARC 459/559	ETHICS AND PRACTICE				■																					■	●	■		■	■	■	■	■	■
ARC 471s/571s	THEORY AND PRINCIPLES OF URBAN DESIGN	●	●						●		●		●			●																		
ARC 498	SENIOR CAPSTONE	●	●		●																														
	Criterion #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

4. SUPPLEMENTAL INFORMATION

4.1 Student Progress Evaluation Procedures
4.2 Studio Culture Policy
4.3 Course Descriptions
4.4 Faculty Résumés
4.5 *Visiting Team Report* from the Previous Visit
4.6 Annual Reports
4.7 School Catalogue

1 Student Progress Evaluation

1.1 Transfer Credit and Advanced Placement

Transfer Students (B.Arch. program)

Students who are not transferring from an accredited architecture program are not admissible directly into the Professional Phase. These students are required to complete the Foundation studio sequence - ARC 101 and ARC 102 - and to mount an exhibit of work as part of the formal application process to second year. About one third of the students in the pre-professional first year have already completed a year or more of college.

Transfer credit for architecture courses from community colleges or university programs not accredited by NAAB is normally allowed as elective credit only. Transfer credit for non-architecture courses may be used to fulfill General Education requirements (Math, English, Physics, Tier 1 and Tier 2 electives) or open electives. Equivalencies are determined by the Program Coordinator and/or the Assistant Dean.

Advanced Placement (B.Arch. program)

Each year the School receives numerous requests from students seeking to transfer into the program with advanced placement. Because of the limited number of places available, this is rarely possible. Usually, no more than one or two students, if any, are allowed to enter the program in the second or third year. Only students with exceptional credentials who are prepared to make a strong contribution to the program are considered for advanced placement. Transfer credit for required architecture courses is allowed only for comparable courses taken in programs accredited by the National Architectural Accrediting Board (NAAB). Equivalencies are determined by the Assistant Dean.

Advanced Placement (Joint B.Arch/M.Arch program)

In order to accommodate graduates from four-year programs, a small number of carefully selected applicants are admitted each year into the Graduate and Undergraduate programs concurrently. These students typically spend two to two-and-a-half to three years completing the requirements of both degrees. Remaining undergraduate requirements are determined by a careful evaluation of each student's transcript and the corresponding course descriptions obtained from print catalogues or websites. Students must complete all courses required for our five-year B. Arch. degree that have not been transferred from their prior school. Equivalencies are determined by the Assistant Dean.

1.2 Policies and Standards

Pre-professional Admission Standards

Because the School of Architecture is a school of national standing and has more applicants than can be accommodated, admission standards for the School are higher than those of most other programs of the University. Evaluation of students begins with the admission process. Our current agreement with the Office of Admissions has established the following admission guidelines. Students are admitted if they meet one of the criteria.

Freshmen
3.0 GPA, 1010 SAT/1110 RSAT, 24 ACT, Top 25% of class
Transfer Students
3.0 GPA (32 or more units of College/Community College work)

Students presenting credentials within 10% of those listed above are reviewed by the Assistant Dean and some of those students are also admitted.

Professional Phase Admission

At the end of the first year, students must apply for admission to the upper years. Professional Phase admission occurs only once per year in the summer for students entering the Professional Phase in August. Those who have completed all required courses in the Pre-professional year of study and eliminated any identified deficiencies in their high school records may apply to the Professional Phase. Because the number of applicants admitted to the Professional Phase is limited by the resources of the College, admission is selective and competitive. Approximately 60 of a pool of 90-100 applicants are admitted each year. Admission to the Professional Phase is based upon a cumulative GPA at the UA (a UA GPA above 3.0 is normally required) and students are ranked according to the following formula:

GPA	40.0 points
Exhibition of creative work	40.0 points
Score on written essay	20.0 points
Arizona residency	2.5 points

The top 55 students are automatically admitted and the remaining 5 chosen from the pool at the Dean's and the Admission Committee's discretion. The average GPA of admitted students is about 3.4.

Grading Systems

The following policy for grading in School of Architecture courses was passed at a faculty retreat on January 8, 2001:

Each faculty member or faculty team, in team taught courses, must establish student performance standards by defining and publicizing what is meant by each letter grade in the letter grade sequence (i.e., A - Excellent, B - Good, C - Satisfactory, D - Unsatisfactory, and E - Unacceptable). These definitions are to be determined in relation to the objectives of the course in which the grades are assigned. All students in the course must be evaluated according to the same grade scale.

The University of Arizona grading system is as follows. It is based on a 4.0 scale.

A*	-	Excellent =	4.0
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C*	-	Fair =	2.0
D*	-	Poor =	1.0
E*	-	Failure =	0.0
P	-	Passing (Special S/P and P/F grade)	
F	-	Failure (Special P/F grade)	
S	-	Superior (Special S/P grade)	
I	-	Incomplete	
K	-	Course in progress	
W	-	Approved withdrawal	
O	-	Audit	
CR	-	Credit	

*Included in calculation of the grade-point average

Students receive grades in all courses. P, F & S grades are used only in independent study, internship, or practicum courses. Students may request to take a course on a Pass/Fail basis but this is allowed only for open electives. All other courses must be taken for a grade.

Advancement Policies

The policy for general advancement as stated in the on-line catalogue: *For advancement in any particular course sequence in the professional phase, individual course prerequisites must have been satisfied, and a cumulative grade-point average of 2.000 or better must have been maintained for the preceding academic year. For advancement to the final year, the student must have completed all requirements in the lower years.*

The policy for advancement in studio was passed at a faculty retreat on January 8, 2001: *Students must maintain a studio grade average of 2.0. Students falling below an average of 2.0 shall be placed on studio probation and have one semester to raise their average to a 2.0. If after that semester a student has failed to raise his or her average to a 2.0, he or she may not advance in studio until the studio grade point average is 2.0 or higher".*

The University has a Grade Replacement Option, which allows students to replace up to 3 classes or 10 units by retaking courses in which grades of "C", "D", or "E" were earned.

Monitoring Student Progress

Students receive a grade in each course, including design studios. A student's grade point average becomes a good indicator of his or her progress. Faculty members are usually pro-active with students who are not doing well in their classes and discuss with them the need and the means for improvement. This is particularly true in design studios where faculty closely monitor student progress.

The new Studio Culture Policy, approved by faculty members and professional students in March 2009 provides for the following in feedback: *Faculty members are required to provide periodic grades and other regular feedback to students, both individually and in formal reviews in public settings involving members of the academic faculty as well as other members of the College, profession, and outside community.*

Many faculty members meet individually with each student at the end of the semester to discuss his or her performance and progress. Students having difficulty will normally have had several such conversations during the term. Students also regularly seek the advice and assistance of the Assistant Dean, the Director, the Program Coordinator, a Faculty Mentor, or other faculty members with whom they have good rapport.

Probation and Disqualification Policies
Students failing to maintain a grade point average of 2.0 are placed on academic probation and are subject to restrictions as imposed by the Assistant Dean's Office. Because of the rigor of the Professional Phase admission process, few, if any, Professional Phase students are on probation.

Students who are placed on probation and fail to attain a 2.0 GPA in the following semester or raise their cumulative GPA to a 2.0, may be disqualified from the College. In practice, if students demonstrate substantial improvement but fall short of the 2.0 cumulative GPA, their probation is extended. If disqualified, a student may return after a minimum of one semester but only with the permission of the Dean and only upon evidence that he or she is capable of academic success. This is normally demonstrated by completing several courses at a community college or another university. Students disqualified more than once are not normally re-admitted. Students disqualified from CALA may, upon written permission of the receiving Dean, be accepted into a different College.

Very rarely, in cases where students might be subject to undue hardship, exceptions are made to these standards and policies by the Student Affairs Committee or by the Assistant Dean's office.

Graduation
Students are awarded the B. Arch. degree in the December or May following verification of the successful completion of all requirements for the degree. The degree check process is begun in the penultimate semester by the Program Coordinator who meets with each student to discuss progress and to ensure that the student is aware of all remaining requirements. The SAPR (Student Academic Progress Report - a personalized online course tally) and an adjustment sheet on which transfer course substitutions are made, are forwarded to the University Graduation Services office for final approval. The diploma is issued by the Graduation Services Office.

4.2 Studio Culture Policy

The faculty of the School of Architecture is committed to the goals of fostering individual intellectual growth and a creative, collaborative and engaged studio/lab community. To that end, our studio/lab culture policy affirms several principles of design education described below. It is intended to augment the University of Arizona Handbook for Appointed Personnel (available at http://web.arizona.edu/~uhap/) on matters of faculty conduct and the University of Arizona Student Code of Academic Integrity (available at http://dos.web.arizona.edu/uapolicies/cai1.html) on matters of student conduct. The relevant policies from those university sources are excerpted in Appendix 1 and 2, respectively, at the end of this document.

Working in the Studio/Laboratory
An enormous amount of learning takes place in studio among faculty and students, and between students without faculty. To facilitate collegial exchange and interaction, every studio participant should be accessible and participate actively in the studio community. The studio is intended to approximate the tradition of an architect's atelier (a special place where the architect works), immersed in the design experience, surrounded by drawings, models, computers, books and other paraphernalia of the discipline and profession. This particular atmosphere is to be encouraged and nourished; it is vital for each student and faculty member to contribute to and maintain this creative working environment. Every member of the studio is encouraged to use it daily as his or her primary workspace.

Intellectual Diversity
We value the intellectual diversity of our faculty and students and support diverse approaches to studio instruction. The personal and intellectual rights of every person in our community will be respected. All members of our community will conduct themselves ethically with regard for others. Faculty members are expected to act with the best interests of each student as his/her primary focus and to treat students in a fair and consistent manner. Students are expected to come to studio with the desire to learn from others and to assist others with their learning needs, creating a robust shared experience where one's intellectual life is advanced by the community as a whole.

Theory and Practice
Each student is asked to frame his/her studio design project as a critical investigation, exploring the intersection of critical architectural practice and individual hypotheses, interests and creative impulses. Faculty members are expected to teach students the foundational knowledge and professional conventions of the discipline while introducing students to, and encouraging them to explore new theories, working methods, and design processes. The University of Arizona is a top tier Research University and its students and faculty are encouraged to engage in experimental and speculative thinking; to think anew.

Collaborative Design
Design studios should promote collaborative learning experiences that prepare graduates for professional teamwork and most studios throughout the curriculum incorporate collaborative exercises as an integral part of studio pedagogy. We value the involvement of other disciplines, outside professionals, and client representatives who contribute knowledge and different perspectives to the project at hand.

Constructive Criticism
Critique is an inherent and integral part of the evaluation process in design education. A fundamental component of the assessment of student work, design reviews provide an opportunity for students to demonstrate and improve upon their oral and visual presentation

skills. They also provide students with an opportunity to understand how their work can be interpreted from multiple, often unanticipated, perspectives.

Faculty members are required to provide periodic grades and other regular feedback to students, both individually and in formal reviews in public settings involving members of the academic faculty as well as other members of the College, profession, and outside community. Faculty and invited reviewers are encouraged to deliver criticism constructively when engaging students and others in the review of studio work. Design studios are inherently places of exchange, and studio projects are common ground for open discussion and creative design exploration. Students are required to attend, present, and participate in all design reviews organized by their instructors. Students should be active participants in reviews of their peers.

All studio participants are encouraged to exchange ideas, opinions, and experiences in a collegial manner, respecting the dignity of others. Students have the right to expect that faculty members will organize critiques and reviews in a manner that focuses on student performance with regard to project requirements. Reviews should encourage the collective learning of the class, rather than providing a forum intended primarily for grading individual pieces of work.

Time Management
Time management is central to the success of a rewarding design education and career. Students are entitled to an appropriate balance between design studio and other aspects of academic and personal life. Studio faculty will understand and be sensitive to the reality that most students have other academic obligations and, in many instances, demanding responsibilities apart from the university. The amount of time that is reasonably necessary for the successful completion of assignments and achieving the learning objectives is to be consistent with the credit hours for the studio course. Students have the right to expect that each faculty member will establish and adhere to fair and reasonable schedules for class time activities and assignments that are directed toward efficient learning as well as reasonable products. Studio faculty shall be required to make a reasonable effort to coordinate dates and deadlines with those teaching other core courses.

Students should expect that the creative acts of design and visual representation entail a commitment to time in the studio outside of regular classroom hours. This is an inherent part of studio culture and its central role in architectural education. Each student will be fully engaged in the task at hand or topic discussed during studio class hours and will be adequately prepared for desk critiques, pin-ups and reviews.

Both faculty members and students are bound to regular, timely attendance in studio classes. During studio hours, faculty members will devote their focus to the needs of the students and studio. To ensure a responsive climate at final reviews, submission deadlines will be given well in advance of the time for the critique session.

Studio Care
All studio participants are expected to respect the health and safety of themselves and their peers, as well as each person's physical and intellectual property, in keeping with the College's "Policy Statement on Facilities and Professional Behavior" (attached to this document as Appendix 3). Work products, equipment, tools and supplies should be cared for with communal responsibility and individual accountability. The housekeeping of studio space is the obligation of all studio participants. Because lab and shop equipment, tools, time and materials are valuable resources that must be shared fairly amongst all studio participants, students and faculty are expected to respect the policies for their use. Systems for reserving the use of lab and shop equipment have been established by the Lab and Space Committee to ensure equity.

Ethical Conduct and Conflict Resolution

The School of Architecture is dedicated to the fair and equitable treatment of all members of the university community and expects ethical conduct from them. Resolution of conflicts or disagreements between individuals is of great importance to the operation and morale of the School. Identification and resolution of conflict shall follow the established policies and procedures of the University of Arizona (accessible online at http://advising.arizona.edu/ad_policy_policy.php). In particular, should either a faculty member or a student be concerned about a violation of the studio culture policy enunciated here and not be able to resolve the problem in a timely way within the studio context, he or she should consult the Director of the School of Architecture as the next step. The Director will hold both faculty members and students accountable for adherence to the policy stated in this document.

Maintenance of the Studio Culture Policy and Evaluation of its Implementation
The Studio Culture Policy shall be published to all faculty and students each year, shall be placed on the School website, and may be excerpted in syllabi and other prominent locations. To ensure the effectiveness and implementation of the Policy – as well as to create the opportunity to amend or change policies outlined therein – the School of Architecture's Studio Culture Policy will undergo review every two years, or as needed, with participation of all faculty and students.

APPENDIX i

UNIVERSITY HANDBOOK FOR APPOINTED PERSONNEL
THE UNIVERSITY OF ARIZONA 2000

CHAPTER 7: ACADEMIC POLICIES AND RELATED INFORMATION

7.01 Professional Conduct

7.01.01 Statement on Professional Conduct The following "Statement on Professional Conduct" was adopted by the Faculty Senate on January 4, 1971. Although the statement refers most often to faculty members, its principles also apply to administrative and professional personnel.

Membership in the academic community imposes on students, faculty members, administrators, and regents an obligation to respect the dignity of others, to acknowledge their right to express differing opinions, and to foster and defend intellectual honesty, freedom of inquiry and instruction, and free expression on and off the campus.

As teachers, faculty members encourage the free pursuit of learning in students; hold before them as best they can the scholarly standards of the discipline; demonstrate respect for the student as an individual; adhere to the proper role as intellectual guide and advisor; make every reasonable effort to foster honest academic conduct and assure that the evaluation of students reflects their true merit; and respect the confidential nature of the relationship between faculty member and student.

The faculty, guided by a deep conviction of the worth and dignity of the advancement of knowledge, recognize the special responsibilities placed upon them. The faculty's primary responsibility to their subject is to seek and state the truth as they see it. To this end, the faculty devote their energies to developing and improving scholarly competence. The faculty member accepts the obligations to exercise critical self-discipline and judgment in using, extending, and transmitting knowledge; and practices intellectual honesty.

As members of the broader community, the faculty have the rights and obligations of any citizen. Faculty members measure the urgency of these obligations in the light of their responsibilities to the subject, to students, to the profession, and to the institution. When the faculty speak or act as private persons, they avoid creating the impression of speaking or acting for the college or University.

In order to accomplish these goals, faculty members assume certain specific responsibilities:

- To conduct each course they have been employed to teach in general conformity with the content, format, and official description of such course as established by the faculties and approved by the President and Board of Regents.
- To meet and conduct classes at all regularly scheduled times and places. The President or a duly appointed representative may authorize a member of the faculty to be absent from classes or to reschedule the work for reasons of health or when in the best interests of the University.
- To notify as promptly as possible the head of the department whenever emergencies such as illness or accident prevent meeting a scheduled class so that a replacement may be arranged.

To be engaged in undergraduate education and the education of graduate and professional students, as appropriate to the mission of each College and/or unit.
To establish individual relationships with undergraduate, graduate and professional students in the role of mentor and advisor, as appropriate to the mission of each College and/or unit.
To be committed to discharging their duties and responsibilities primarily on the campus of the University and other such sites as appropriate to the mission of each College and/or unit.

In addition to fulfilling the responsibilities listed in the above "Statement," faculty members are expected to support students in the following ways:

By meeting and terminating classes at the scheduled times;
By posting and keeping a schedule of office hours during which they are available for conferences;
By advising students during orientation and registration.

They are encouraged to support students:
By attending commencement exercises (in academic dress);
By serving as advisors to student honorary and professional societies, and other student organizations and clubs.

APPENDIX 2

CODE OF ACADEMIC INTEGRITY

PRINCIPLE

Integrity and ethical behavior are expected of every student in all academic work. This Academic Integrity principle stands for honesty in all class work, and ethical conduct in all labs and clinical assignments. This principle is furthered by the student Code of Conduct and disciplinary procedures established by ABOR Policies 5-308 through 5-404, all provisions of which apply to all University of Arizona students. This Code of Academic Integrity (hereinafter "this Code") is intended to fulfill the requirement imposed by ABOR Policy 5-403.A.4 and otherwise to supplement the Student Code of Conduct as permitted by ABOR Policy 5-308.C.1. This Code of Academic Integrity shall not apply to the Colleges of Law or Medicine, which have their own honor codes and procedures.

PROHIBITED CONDUCT

Students enrolled in academic credit bearing courses are subject to this Code. Conduct prohibited by this Code consists of all forms of academic dishonesty, including, but not limited to:

1. Cheating, fabrication, facilitating academic dishonesty, and plagiarism as set out and defined in the Student Code of Conduct, ABOR Policy 5-308E.6, E.10, and F.1.
2. Submitting an item of academic work that has previously been submitted or simultaneously submitted without fair citation of the original work or authorization by the faculty member supervising the work.
3. Violating required disciplinary and professional ethics rules contained or referenced in the student handbooks (hardcopy or online) of undergraduate or graduate programs, or professional colleges.
4. Violating discipline specific health, safety or ethical requirements to gain any unfair advantage in lab(s) or clinical assignments.
5. Failing to observe rules of academic integrity established by a faculty member for a particular course.
6. Attempting to commit an act prohibited by this Code. Any attempt to commit an act prohibited by these rules shall be subject to sanctions to the same extent as completed acts.
7. Assisting or attempting to assist another to violate this Code.

STUDENT RESPONSIBILITY

Students engaging in academic dishonesty diminish their education and bring discredit to the academic community. Students shall not violate the Code of Academic Integrity and shall avoid situations likely to compromise academic integrity. Students shall observe the generally applicable provisions of this Code, whether or not faculty members establish special rules of academic integrity for particular classes. Students are not excused from complying with this Code because of faculty members' failure to prevent cheating.

FACULTY RESPONSIBILITY

Faculty members shall foster an expectation of academic integrity and shall notify students of their policy for the submission of academic work that has previously been submitted for academic advancement, as well as any special rules of academic integrity or discipline specific ethics established for a particular class or program (e.g., whether a faculty member permits collaboration on coursework; ethical requirements for lab and clinical assignments; etc.), and make every reasonable effort to avoid situations conducive to infractions of this Code.

STUDENT RIGHTS

Students have the right to a fair consideration of the charges, to see the evidence, and to confidentiality as allowed by law and fairness to other affected persons. Procedures under this

Code shall be conducted in a confidential manner, although a student has the right to an advisor in all procedures any appeal to a University Hearing Board under this Code. The Dean of Students serves as advisors to students on any questions of process related to this Code.

ACADEMIC INTEGRITY PROCEDURES

I. Faculty-Student Conference

The faculty member of record for the course (i.e., responsible for signing the grade sheet) conducts these procedures and is responsible for ensuring that they are followed. If faculty allege a violation of this Code has occurred they shall make sure that students receive written notice in advance of the conference within a reasonable timeframe, detailed reason for the conference and fair consideration of the charges against them. The faculty member must confer with the student within 15 academic days (hereinafter referred to as "days") of receiving evidence of a suspected violation of this Code, unless good cause is shown for an extension of no more than 30 days. Such an extension must be approved by the Dean of the College. After 15 academic days the faculty member may proceed with imposing decision and sanction for an alleged violation if the student has not responded to reasonable attempts for the conference to take place. If the faculty member has not acted on the alleged violation after 15 academic days, then the student shall not be subject to this code for the alleged violation in question. The faculty member shall confer with the student in private, explain the allegations, present any evidence, and hear the student's response. If more than one student is involved in an incident, separate conferences are recommended but not required. When dealing with students who are unavailable for the conference, students not enrolled in the class, or graduate students, refer to the General Provisions. After the conference the faculty member shall decide, by a preponderance of the evidence, whether or not the student has committed an act prohibited by this Code. "Preponderance of the evidence" means that it is more likely than not that a violation of this Code occurred. If the evidence does not support a finding of a violation, the University will make no record of the incident in any University files. The student may continue in the class without prejudice.

If the evidence supports a finding that the student has engaged in misconduct, the faculty member shall impose sanctions after considering the seriousness of the misconduct, the student's state of mind, and the harm done to the University and to other students. In addition, the faculty member shall consider mitigating and aggravating factors in accordance with the provisions of ABOR Policy 5-308.II. A faculty member may impose any one or a combination of the following sanctions: a written warning, loss of credit for the work involved, reduction in grade, notation of the violation(s) on the student's transcript (temporary or permanent), or a failing grade in the course, or revocation of a student's degree. The faculty member may also impose a sanction of suspension or expulsion from the program, department, college, or University. When appropriate faculty members may also assign students to participate in educational sanctions that address the violation of this Code. If the faculty member assigns a notation on the transcript, suspension or expulsion from the University or revocation of a degree as a sanction, the student is automatically entitled to an appeal to the Dean of the College according to the procedures below. Within 10 days of the conference, the faculty member shall prepare a written decision outlining the charges, evidence, findings, conclusions and sanctions imposed. The faculty member should use the standard form entitled "Record of Faculty-Student Conference," and furnish copies to the student (as provided in the "Notice" section under General Provisions) and to all others as noted on the form, including the Dean of Students Office. When possible, the faculty member should have the student sign the "Record of Faculty-Student Conference." See the General Provisions section for Grade Before Appeals.

II. Additional Sanctions for Multiple Violations

Multiple violations of this Code may subject students to additional sanctions, including suspension or expulsion at the discretion of the Academic Dean of the student's College

("Academic Dean") or his/her designee. Students found responsible by a faculty member for a violation of the Code must immediately contact the Dean of Students Office to determine if they have multiple violations subjecting them to additional sanctions by their Academic Deans.

Upon receiving the Record of Faculty-Student Conference, the Dean of Students Office will notify the student and the Academic Dean of the existence of multiple violations. The Academic Dean will decide within 20 days if any additional sanctions are to be imposed on the student as a result of multiple violations. The Academic Dean shall not revisit the decisions made in previous violations of the Code. The Academic Dean will notify the student, the Dean of Students Office and the Dean of the College where the violation occurred as provided in the "Notice" section under General Provisions within 20 days of receipt of notice of multiple violations from the Dean of Students Office in writing of convey this any additional sanctions and related information to the faculty member, the student, the Dean of Students Office and the Dean of the College where the violation occurred ("Dean of the College"), as provided in the "Notice" section under General Provisions within 20 days of receipt of notice of multiple violations from the Dean of Students Office. The Academic Dean should use the form entitled "Sanctions for Multiple Violations," and outline the findings and conclusions supporting his/her decision for any additional sanctions. Except in cases where the sanction for multiple violation results in suspension or expulsion from the University, a notation on the student's transcript or revocation of a student's degree the additional sanctions imposed by the Academic Dean for multiple violations of this Code shall be final. If the case is appealed as set forth below, the Academic Dean will present the case for the additional sanction.

III. Appeal to Dean of the College

The student may appeal the faculty member's decision and sanctions to the Dean of the faculty member's College or his/her designee. The student shall deliver the form entitled "Request for Appeal of the Code of Academic Integrity" the written appeal to the Dean of the College within 10 days of the date on which the notice of the decision is received the "Record of Faculty-Student Conference" is postmarked electronically or via postal mail. The Dean of the College may extend this filing period if the student shows good cause for the extension. If a student does not appeal within the time provided, the decision and sanctions of the faculty member will be final.

Within 15 days of receiving the appeal, the Dean of the College shall schedule the appeal hearing for this specific case only. The appeal hearing must be concluded within 30 days of receiving the appeal. Upon appeal, the Dean of the College shall review the faculty member's decision, sanctions and supporting evidence, and any evidence provided by the student, and shall confer with the faculty member and the student. The Dean of the College shall have the authority to uphold, modify, or overturn the faculty member's decision and sanctions. If the Dean of the College finds:

1. that the conclusion of a violation is not supported by the evidence, then he/she shall render a finding of no violation and that the sanction(s) imposed be overturned.
2. that the conclusion of a violation is supported by the evidence and the sanction imposed is appropriate, then he/she shall uphold the faculty member's decision and sanction(s).
3. that the conclusion of a violation is supported by the evidence, and the sanction(s) imposed are inadequate or excessive, then he/she shall modify the sanction(s) as appropriate.

The Dean of the College shall notify the student, the faculty member and the Dean of Students in writing of his/her decision as provided in the "Notice" section under General Provisions. The Dean of the College should use the form entitled "Record of Appeal to Dean of the College" for this purpose. If the Dean of the College fails to act within the 15-day period, the student may, within 10 days thereafter, appeal to a University Hearing Board by providing a written notice of appeal to the Dean of Students Office. If the Dean of the College decides no violation occurred,

all reference to the charge shall be removed from the student's
University records, and the student may continue in the class without prejudice. If the semester has ended prior to the conclusion of the appeal process, the faculty member shall calculate the grade without the sanction. If work was not completed due to the academic integrity allegation, the faculty member and the student shall confer and a grade of "W" or "I" shall be assigned. If a grade of "I" is assigned, the student shall have the opportunity to complete any remaining work without prejudice within the timeframe set forth in the student's academic catalog..

If the alleged academic integrity violation and subsequent appeal process continues past a student's graduation date, the Dean of the College should make every reasonable attempt to hear the appeal in an expedited manner. If the Dean of the College is unable to hear the appeal in an expedited manner the Vice President for Instruction shall hear the appeal according to the procedures set forth above.

IV. Interim Action

1. The Dean of the College involved may suspend the student from one or more classes, clinics or labs for an interim period prior to resolution of the academic integrity proceeding if the Dean of the College believes that the information supporting the allegations of academic misconduct is reliable and determines that the continued presence of the student in classes or class-related activities poses a significant threat to any person or property.
2. The Dean of the College must provide a written notice of the interim suspension to the student, with a copy to the Provost and the Dean of Students Office. The interim suspension will become effective immediately on as of the date of the written notice.
3. A student who is suspended for an interim period may request a meeting with the Provost or his/her designee to review the Dean of the College's decision and to respond to the allegations that he or she poses a threat, by making a written request to the Provost for a meeting, including the student's dates of availability. The Provost or his/her designee will schedule the meeting no later than five (5) days following receipt of the written request and decide whether the reasons for imposing the interim suspension are supported by the available evidence.
4. The interim suspension will remain in effect until a final decision has been made on the pending academic misconduct charges or until the Provost, or his/her designee, determines that the reasons for imposing the interim suspension no longer exist or are not supported by the available evidence.

V. Appeal to University Hearing Board

The student may appeal to a University Hearing Board any decision of the Dean of the College or the Academic Dean that imposes suspension or expulsion from the University or provides for a notation on the student's transcript, or revokes a student's degree to a University Hearing Board. The student may also appeal to a University Hearing Board if the Dean of the College failed to act on a request for an appeal of a faculty member's decision within the 30-day period. The Dean of the College may grant the student the option to appeal to a University Hearing Board if the sanction of a failing grade is imposed and the Dean of the College believes reasonable persons would disagree on whether a violation occurred. The appeal must be filed within 10 days from receipt of the decision or the Dean of the College's failure to act, by providing written notice of appeal to the Dean of Students Office. The student should use the form entitled "Request for Appeal to a University Hearing Board" for this purpose. If a student does not appeal within the time provided, the decisions of the Academic Dean, and the Dean of the College or the faculty member if the Dean of the College failed to act, will be the most recent decision of record shall become final. The University Hearing Board shall follow the procedures set forth in the Student Disciplinary Procedures ABOR Policy 5-403.D. with the following modifications:

1. The Hearing Board shall be composed of three faculty members and two students and shall convene within 30 days of the time the student files the appeal.
2. Wherever the term Vice President of Student Affairs appears, it shall be replaced with

Senior Vice President for Academic Affairs/Provost. The Provost is empowered to change grades and the Registrar shall accept the Provost's decision. The Provost shall also notify the parties of the final decision. The Provost may designate a Vice Provost or other Vice President to act on his/her behalf.

3. Wherever the Dean of Students is indicated as presenting evidence or witnesses, it shall be replaced with the faculty member who made the charges or his/her representative. Additionally, the Academic Dean or designee may also present evidence to support sanctions for multiple violations.

4. The student may be assisted throughout the proceedings by an advisor or may be represented by an attorney. If the student is represented by an attorney, the faculty member may also be represented by an attorney selected by the University's Office of the General Counsel. Attorneys Office.

5. The faculty member has the same right as students to challenge the participation selection of any Board member, as noted in the Student Disciplinary Procedures (5-403.D.3.f.).

6. The Board may, in its recommendations, address any egregious violations of process.

7. Sanctions for multiple violations will be recommended and presented to the Board by the Academic Dean or his/ her designee

GENERAL PROVISIONS

Academic Days

"Academic Days" are the days in which school is in session during the regular fall and spring semesters, excluding weekends and holidays. If possible, Faculty-Student Conferences and appeals may be heard during the summer or winter break. The Dean of the College or Dean of Students may extend these time limits when serving the interests of a fair consideration or for good cause shown. Alleged violations of the Code during Pre-Session, Summer Sessions, or Winter Session shall proceed according to the timeline for the faculty-student conference set forth above. Appeals from an alleged violation during Pre-Session, Summer Sessions, or Winter Session shall proceed at the discretion of and the availability of the Dean of the College or if unavailable, the Dean's designee. If the appeal process cannot proceed during Pre-Session, Summer Sessions, or Winter Sessions the student shall continue in the class without prejudice and the timeline for the appeal process shall continue at the start of the next regular fall or spring semester. Appeals involving a student who has graduated shall follow the expedited process set forth above.

Academic Dean

The Academic Dean is the Dean of the academic college where the student's major is housed. In the case of dual degree students, the Dean of the student's primary major college will hear the appeal. Under this Code, the Academic Dean may designate another member of the college administration to act on his/her behalf.

Advisor

An individual selected by the student to advise him/her. The advisor may be a faculty or staff member, student, attorney, parent or other representative of the student. The student will be responsible for any fees charged by the advisor. The advisor may confer with the student during any proceedings provided by this Code, but may only speak during a University Hearing Board. The advisor may be dismissed from the hearing if University Hearing Board Chairperson finds that the advisor is disruptive. If the advisor is dismissed from the meeting, the student has the right to end the meeting and reschedule when a new advisor can be present.

Dean of the College

The Dean of the College is the Dean of the faculty member's academic college where the alleged violation occurred. In the cases where the alleged violation is initiated by the Graduate College or the Honors College, the Deans of those Colleges will hear the appropriate appeal. Under this

Code, the Dean of the College may designate another member of the college administration to act on his/her behalf.

Dean of Students
The Dean of Students serves as administrators of this Code and advisors to students and faculty when questions of process are raised by either party.

Grade Before Appeals
Students must be allowed to continue in class without prejudice until all unexpired or pending appeals are completed. If the semester ends before all appeals are concluded, a grade of "I" shall be recorded until appeals are completed.

Graduate Students
In cases involving graduate students, faculty shall follow the procedures outlined for undergraduate students except that in all cases where the student is found to have violated this Code, the faculty member (and in the case of appeals, the Dean of the College or Hearing Board) shall notify the Associate Dean of the Graduate College.

Notice
Whenever notice is required in these procedures it shall be written notice delivered by hand or by other means that provides for verification of delivery including email delivery to a secure University email account.

Record
Whenever a sanction is imposed, the sanction and the rationale shall be recorded in the student's academic file as appropriate. It is recommended that the standard forms entitled "Record of Faculty-Student Conference" and "Record of Appeal to Dean of the College" be used. These forms are available from the Dean of Students Office website. Students may petition the Senior Vice President for Academic Affairs/Provost after five years from the semester of the determination or upon graduation, whichever occurs first, to have the record destroyed.

Rights and Responsibilities of Witnesses
Witnesses from within the University community are expected to cooperate in any proceedings under this Code. The privacy of a witness shall be protected to the extent allowed by law and with consideration to fairness to the students charged and other affected persons. Retaliation of any kind against witnesses is prohibited and shall be treated as a violation of the Student Code of Conduct or of other applicable University rules.

Students or Faculty Not Available For Conference
In cases where the student is not available, e.g., out of the area after final exams, the faculty member shall make every reasonable effort to contact the student through personal contact, telephone, University email, or mail to inform the student of the charges. If the faculty member is able to contact the student, the Faculty-Student Conference shall be scheduled as soon as both parties are available, e.g., at the beginning of the next semester. The student shall be given the grade of Incomplete until the conference is held. If either of the parties will not be available for an extended period, the Faculty-Student Conference shall be held via the telephone or by mail. If after several efforts, contact cannot be established, the faculty member may impose sanctions but must send a letter or copy of the "Record of Faculty-Student Conference" form via certified return receipt requested mail to the student's last permanent address outlining the charges, findings, conclusions and sanctions.

Students Not In Class
If students not enrolled in the class are involved in a violation of this Code, faculty shall file a

Student Code of Conduct complaint with the Dean of Students Office.

Role of the Department Head
Academic Department Heads serve a consultative role for faculty members working with matters of academic integrity since Department Heads are not part of the appeal process.

APPENDIX 3

COLLEGE OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE

POLICY STATEMENT ON FACILITIES AND PROFESSIONAL BEHAVIOR

An Ethic of Professionalism

This is a professional school. Students expect an ethic of professionalism from the faculty and staff. The faculty and staff, in turn, expect the same ethic of professionalism from the students. This is displayed in the work you do for all your classes, the environment in which you work, and the conduct of your behavior. The following policies and rules are meant to instill this ethic throughout your educational career here at the College and beyond into your career as a working professional.

Studio, Classroom, and Lab Environments

We have just completed construction of a new facility which is not only a working environment for our students, faculty and staff, but also now a landmark for the design professionals, the university community, the general public, and guests of all stripes. We are calling on you to maintain the studio and lab environments that convey not only active engagement, but a clean environment worthy of visitors at any time.

1. There will be no work done anywhere inside the College facilities that uses cement, pour-stone, plaster, modeling wax, or aerosol spray of any kind (especially Spraymount). That work will be confined to the designated Materials Lab spaces on the ground floor according to the policies established by Paulus Musters, Labs Coordinator. Do not conduct any materials experimentation in the Landscape Research Garden. Anyone who is caught working with these materials in these inappropriate spaces will be turned over to UA Police with charges of vandalism and will be eligible for academic suspension.

2. The studio environments must be kept clean; this is part of a professional ethic to create good working habits. Push brooms are available from the Materials Labs if necessary. The studio instructors have been given the responsibility to maintain their individual studio sections and the authority to delegate this responsibility to the students. In addition, the studio instructors have the authority to withhold your grade if your studio section has not been properly cleaned up at the end of the semester.

3. To protect the exterior and interior appearance of the building, nothing should be attached to any of the glass walls, inside or out. Also, the corridor between the north glass façade and the exhibit panels in the East Building shall remain clear of any items. This will be strictly enforced.

4. The hallways, studios and building vestibules are not storage areas for large materials or bicycles. The hallways need to remain clear as exit corridors or the Fire Marshall will fine us and has the authority to shut down the building if this becomes a regular pattern of behavior. I will instruct the building monitors to remove and dispose of any materials that are stored in areas that restrict accessibility through the building. Please talk to Paulus Musters, Labs Coordinator, prior to the delivery of any materials to the College so they can be stored properly.

5. Bicycles are not allowed in the building according to State Law. As we discovered last year, UA Parking & Transportation has the right to confiscate bicycles identified violating this regulation. There are bike racks surrounding the CALA facility and we are working on obtaining lockable bike lockers that can be rented for student use.

6. There are outlet boxes distributed throughout the studio floors that contain power and data access. The College will do its best to provide power to your desk, but because of the various configurations of studio sections and the extraordinary demands of personal computers and other equipment in the studio, extra precaution is required by all of you, especially in the use of extension cords. The use of extension cords must comply with UA Risk Management guidelines including, using only UL-compliant multi-plug adaptors, no daisy-chaining of power strips or extension cords, and all extension cords exposed in high traffic areas are considered a safety hazard and must be covered with an UL-approved cable protector.

7. Small appliances, such as refrigerators and microwaves, must be plugged in directly to a permanent power source, not a power strip. Space heaters and hot plates are specifically prohibited in the studios.

8. There is no access to the roofs of either the east or west buildings of the College. The roof is not legally accessible, nor is it protected against life-safety risks. If people are reported on the roof, UA Police has informed us that they will be arrested for trespassing.

9. Extra-curricular activities in the studio. Balance your need to expend physical energy in the studio with a professional respect for others and their work. Choose an activity and a place that does harm to no one else (i.e. if you want to play sports, go outside).

10. The Break-Out and Conference Rooms are available for use but must be checked out from the Front Office by a faculty member. You are required to clean up, return the room to its original arrangement, lock the door before you leave, and return the key to the Front Office after you're finished.

11. The Graduate Studio has created a graduate student lounge area between the Architecture and Landscape Architecture studio sections. Please respect this space as being for graduate students only.

Landscape Research Garden
The garden on the south side of the East Building is designed to demonstrate various desert micro-climates and evaluate the College's water conservation strategies, as well as being an enjoyable outdoor space. Treat the Garden with respect by disposing of your trash appropriately and making sure others do too.

Garbage
We produce a lot of garbage and it needs to be managed accordingly. The building and its spaces are not trash dumps – they're working environments shared by all of us. This means all of us (students, faculty, & staff) need to work together to keep the studios, hallways, labs, and classrooms clean and presentable for ourselves and the many visitors who tour through the building, including potential donors, alumni, guest critics, prospective students and parents.

Also, please respect the custodians and the work they do for us. They take as much pride in their work as you do in yours – don't make their job more difficult than it has to be. Here are some reminders:

1. All large items should be put directly in the dumpster next to the ramp going down to the Materials Labs. Do not place items next to the dumpster expecting them to be picked up; they need to be inside the dumpster.

2. Garbage in the studio trash bins is picked up every day by the custodians during their 3-10.30am shift. If the bags are too heavy, they won't take them. Be considerate of the custodians as you fill up the trash bins.

3. The studios floors are swept once a week. I have told the custodians that anything left on the floor is fair game for pick-up.

4. Trash in faculty offices is emptied once a week. If your trashcan is full prior to a week's time, put it outside your door in the hallway and the custodians will empty it.

Student Behavior

1. There is no smoking, alcohol or drug use inside College facilities per University of Arizona policies. Anyone caught violating this university policy will be arrested by UA Police and eligible for academic suspension. In addition, if alcohol is reported by the custodial crew, UA Police will prohibit after-hours access to the building indefinitely. Unfortunately, this is a case of the behavior of a few dictating the policy for the whole, but this behavior will simply not be tolerated. Alcohol may be consumed at officially sanctioned events in the college, but only by those 21 years or older.

2. Enjoy your music, but use headphones to respect others' right to a quiet environment.

3. The front steps, landscaping, and areas outside the building are not gigantic ashtrays. Dispose of cigarette butts appropriately.

Smoking
No smoking is permitted inside the College facilities. Smoking is permitted outside the building on the west side in the court under the olive tree and on the east side in the patio with the table/chair ensembles. Both areas are marked by ashtray receptacles.

Stools
Studio stools will be distributed and signed out to undergraduate students at the beginning of each semester. You are responsible for securing, storing, taking care of, and returning the stool assigned to you each semester. If you lose the stool, or don't return it at the end of the semester, we will assess a $100 fine against your university bursar's account. You are also welcome to bring in your own stool.

After Hours Access Using CATcards
Our goal is to provide you with as much access to the building as possible while balancing your need for security, particularly at night. For your safety and for the safety of others, do not prop the entry doors open or force the doors open in lieu of using your CATcard. This destroys the doors and the security they're meant to provide you. **If the entry doors are found propped open on a regular basis, access to the building after hours will be prohibited**. You are very fortunate to have after-hours access to this building; let's not abuse this privilege.

You will need an activated CATcard to access the building after hours. If you're a new student and haven't had this done yet, talk to one of the administrative assistants in the front office.

Architecture professional students with activated CATcards have 24-hour access to both buildings' studios (except the East Building, third floor graduate studio) and the outdoor deck of the Materials Labs.

1. Architecture pre-professional students with activated CATcards have 24-hour access to the West Building studios, but are not permitted after-hours access to the studios nor labs of the East Building.

2. Graduate students (Architecture and Landscape Architecture) with activated CATcards have 24-hour access to studios in both buildings. Only
   Graduate students are allowed on the third floor of the East Building.

3. No after-hours access is allowed inside the Materials Labs nor the Sundt Gallery without authorized monitors.

The ground floor plan below shows the various after-hours entry points using your CATcard (indicated below with the "C"). In addition, there are CATcard readers in the East Building at the second and third floor studio entrances.

West Building *East Building*

Bicycle Parking

Bicycles are not allowed anywhere inside the building per University regulations. Nor are they allowed to be parked against any tree, plant, bush, utility pipes, or signs. Bike racks can be found throughout the entire perimeter of the building. In addition, six campus garages now include secure low-cost bicycle enclosures. Call 626-PARK or visit http://parking.arizona.edu/alternative/bike_parking.php for more information about bicycle racks, enclosures and lockers.

Your cooperation in enforcing these policies is appreciated. If you have any questions or observe any problems, please contact me.

R. Brooks Jeffery
Associate Dean

College of Architecture and Landscape Architecture
621-2991
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4.3 COURSE DESCRIPTIONS

4.3 Course Descriptions

4.3.1 Curriculum Stream Mission Statements

Design Studio Stream
The mission of the design studio sequence is to nurture critical thinking in order to cultivate knowledge through problem finding and solving skills for the ethical, sustainable and regenerative design of architecture and its environment. The design sequence is intended to develop students' ability to produce a comprehensive architectural design incorporating all aspects of the contemporary design landscape that students will face in the near future: site analysis, programming, theory, life safety provisions, integration of structural and environmental systems, and active and passive building assemblies. In addition, students have the opportunity to participate in design/build studios that investigate the potential of materials and systems and provide housing for those in need. The design program culminates in a capstone project of self-directed research focusing on areas such as emerging material technology, structure, landscape and place or societal needs.

Building Technology Stream
The building technology stream is comprised of three distinct yet interdependent concentrations: structures, environmental control systems, and materials and methods. The stream is dedicated to cultivating a comprehensive yet specific understanding of architectural technology and its contribution to architectural design and performance. Abstract principles are studied and employed as technical systems are practically and creatively explored. Students are provided the theoretical and practical background required for professional practice, the architectural registration examination, and contributing to new and emerging architectural technologies. The building technology stream employs empirical methods and laboratory projects in each course.

Critical Practice Stream
The Critical Practice Stream seeks to establish intellectual sensibilities necessary in the navigation of core contextual issues that influence the architectural design process. Recognizing that education and practice reside within the same continuum, the primary purpose in establishing these intellectual sensibilities is the development of agile, strategic assimilation into internship and advanced professional practice. The courses within the stream focus on engendering ethics and responsibility through knowledge of environmental, cultural and regulatory conditions that must be considered in the creation of sensitive, place based architecture. Understanding established in each of these realms serves to nurture the emerging professional.

Design Communication Stream
The Design Communication stream emphasizes the development of digital communication techniques for the analysis, presentation and development of architectural ideas. Essential methods of digital drawing and frameworks for dissemination of information are investigated through a series of interrelated exercises.

The introduction and development of a variety of digital platforms along with the conceptual and ethical framework for their utilization are emphasized throughout the Design Communication course stream. Material exploration of the design research is engaged and developed concurrently with the digital production.

All assignments and quizzes contain a *unit of knowledge* and a *unit of skill*, which will be emphasized and clearly articulated in order to develop a nuanced understanding of the subject matter and the digital tools employed in this course. Throughout the entire course stream, both the grammar and syntax of design communication are elaborated in terms of their theoretical potential and practical efficacy.

History/Theory Stream

The History/Theory curriculum stream in the School of Architecture teaches students to recognize and interpret the rich spectrum of factors that influence the making of architecture in any period. The various courses we offer seek to fulfill the principle that an historical account or theoretical model of any kind will be strongest when it is guided by a coherent structure of investigation and can propose a convincing connection between ethical stance, technological advance, formal innovation, social function, and meaning. We recognize, however, that "history" is never monolithic but instead always a particular account of events, which may be in competition with or superseded by other accounts; for this reason, history must be supplemented by historiography which traces the history of history writing, theory which establishes overarching frames of reference, and criticism which accentuates the contradictions of history and lays out contemporary priorities in the judgment of architecture.

In our individual courses, we teach the works of the past and the present in order to reveal the following factors conditioning architectural design and experience: the environmental factors of site and physical context, the functional factors of program, the constructional factors of materials and methods, the technological factors of forces and structures, the formal factors of spatial configuration and treatment of mass and surface, the socio-political factors of patronage and use, and the cultural factors of architectural experience in contemporary context. We aim to produce students who are able to think critically about the aspirations, constraints, methods, and choices involved in all architectural design, past and present.

SYLLABI FOR REQUIRED COURSES

ARC 101: Foundation Studio I

Credit Hours:	4	Offered:	Fall
Type:	Studio & Lectures, Required (Design)	Coordinator:	Christopher Domin

Prerequisite: none

COURSE DESCRIPTION

Develop a visual and haptic sensibility/rigor through the use of freehand drawing and material manipulation.

COURSE OBJECTIVES

This course introduces students to the essential methods of freehand drawing through a series of interrelated exercises. Techniques such as investigative sketching, contour drawing, and full tonal range drawing are considered in relation to their potential to reveal the world around us with a heightened sense of awareness. Elements such as light, material, structure and enclosure will be explored at a variety of scales and applications.

During the course of the semester, each student is encouraged to develop a set of manual skills that will allow for future innovation. The students and faculty are collaboratively engaged in order to establish a practice of drawing that encourages an aptitude for critical thought. To this end, a program of spatial and analytical exercises is developed to focus attention not only on how architects and artists draw but also on the reasoning and processes embedded within each technique. A diverse team of teachers will oversee the curriculum, as well as each studio section. We will utilize the course material to engage our place in the Sonoran Desert.

COURSE REQUIREMENTS

The successful completion of three topic areas is required of each student. Comprehensive portfolios are evaluated at the end section. Use of freehand observation and analytical drawings along with physical modeling is introduced and rigorously developed during the course of the semester. A unit of skill and a unit of knowledge are linked to each project description.

Honors Section: In addition to general lecture and studio requirements, students enrolled in the Honors Section are required to meet for one extra fifty-minute discussion section each week. Two books are assigned each semester, and two field trips to local architecture studios augment the discussion topics. A pedagogical notebook from each student is evaluated at the end of the semester.

Required Texts:

Readings available at EReserve on the Main Library website.

COURSE TOPICS & STRUCTURE

Lectures will introduce and explain the theoretical goals associated with each week in the semester, which then will be understood through the process of project development and manual skill acquisition in the studio.

The grade for each exercise will be derived through evaluation in three areas: clarity (technique and conceptualization), development (process), and final resolution (execution) of the assignment.

ARC 102: Foundation Design II

Credit Hours:	4	Offered:	Spring
Type:	Studio + Lecture, Required (Design)	Coordinator:	Beth Weinstein

Prerequisites: ARC 101

COURSE DESCRIPTION

This course will introduce students to and allow them to develop skills and thinking related to visual, haptic and cognitive representation by means of technical drawing, descriptive geometry + material manipulation.

COURSE OBJECTIVES

1. Develop graphic representational skills, specifically using orthographic, paraline and central projection and sketching.
2. Develop a formal vocabulary, based on tectonics and stereotomy.
3. Develop fundamental design skills
4. Understanding of Western architectural canons, related to projection drawing and tectonic/stereotomic space making
5. Understanding Non-Western canons of representation and space making.

COURSE REQUIREMENTS

Students complete several projects during the semester. For each project, students are introduced to and must integrate concepts and techniques related to a new mode of representation (orthographic, paraline, shadow-casting and perspective), new spatial concepts, and modes of investigation through model-making (line/plane/volume as assembled/layered/carved). Students additionally build graphic skills through daily "piano exercises" and conceptual skills through reading assignments discussed in review sessions. Lectures introduce students to the historical background of these modes of representation, to nonwestern traditions, and to contemporary examples. Lecture sessions also serve as demonstrations for various techniques (model making, shadow casting, perspective drawing) that the students use in their projects.

The semester culminates with an exhibition of their work from the both the fall and spring semester foundation studios. This exhibition in a large part of their application for admission to the Professional Program.

Required Texts:

Frank Ching, Design Drawing
Robin Evans, "Translations from Drawing to Building," *Translation of Drawing to Building and Other Essays*, pp. 152-193.
Kenneth Frampton, "Reflections on the Scope of the Tectonic," *Studies in Tectonic Culture*, Cambridge: MIT Press, 2001.
Juhani Pallasmaa, The Eyes of the Skin: Architecture and the Senses, West Sussex: Wiley: 2005. pp. 54-72.
Samuel Edgerton, *Renaissance Rediscovery of Linear Perspective*, pp. 42-9, 124-52.

COURSE TOPICS & STRUCTURE

Lectures occur twice a week; students work on skill building and design projects in a studio setting two days/ week. Project One introduces students to orthographic projection. Project two introduces them to paraline projection drawing and tectonic modes of assembly. They design modules, which assembled create an armature or vessel to contain a found object. Project Three investigates the generation of space from a layering of section (figure/ground) conditions. In this project, scale, the human body, a basic concept of program and light/shadow are introduced. The fourth and final project builds upon the third, introducing descriptive geometry as a means to understanding solids, combined with tectonic and stereotomic manipulations of space. Students are introduced to methods and concepts related to perspective drawing.

NAAB Criteria:
5, 11

ARC 201: Design Studio: Spatial Composition

Credit Hours:	6	Offered:	Spring
Type:	Lecture/Laboratory, Required (Design)	Instructor:	Annie Nequette +3 adjuncts
Prerequisites:	ARC Foundation Studios 101, 102		

COURSE DESCRIPTION

This course is a fundamental inquiry into the nature of spatial composition. Line, plane, mass and volume will be investigated through a series of abstract exercises. The final project will synthesize all of these elements.

COURSE OBJECTIVES

1. To develop these three ethics: analytical, material and spatial. See course topics below.
2. Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards [NAAB criteria 2]
3. Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process [NAAB criteria 3]
4. Understanding of the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design [NAAB criteria 5]
5. Ability to use basic architectural principles in the design of buildings, interior space, and sites [NAAB criteria 6]

COURSE REQUIREMENTS

The student is required to complete all projects on time and in a satisfactory manner. The student is expected to be engaged in the on-going discourse of the design studio, through participation in formal or informal design reviews, group, faculty/student or and peer-to-peer discussions about the assigned essays, faculty and guest lectures, projects in studio and as they relate to their other coursework. Students are expected to go to all of the guest lectures, unless they have a previous engagement or must work, as part of the design studio curriculum.

Required Texts on-line e-reserves: [not all of them are listed here]

Berger, John. "The Field" from About Looking
Calvino, Italo. "At the Beach" from Mr. Palomar
Holl, Steven. "Anchoring" from Anchoring: selected projects 1975-1988
Malo, Alvaro. The Hand. Organ of Knowledge. 1992
Tobier, Nicholas "From Learned Pigs to Burning Man, Itinerant Amusement in America"

COURSE TOPICS & STRUCTURE

Structure: Typically Wednesdays are workdays, except when new assignment presentations/lectures will be given, reviews or essay discussions on Mondays, and most of the guest lectures will be on Fridays. See schedule.

Topics: In addition to the NAAB criteria, the 201 studio curriculum engenders an *analytic ethic* that exercises inquisitiveness, and rigorous investigation, a *material ethic* composed of understanding of material properties and the craft of manual dexterity and intention, and finally, a *spatial ethic* formed from an understanding of the interrelationships between form and space, light as a precise phenomenon in its many variations, and scale in relation to the human body.

Projects Descriptions:

Project I: Create a spatial composition using line (string) in an existing landscape to 'draw out', intensify or amplify inherent spaces and engage the body.
Project II: Create a dynamic spatial composition, i.e., understand that the description of space as an active medium is dependent on form, through using planes within a bounded and planar space.
Project III: Create dynamic spatial relationships in mass and space through a process of subtraction and addition, using formwork and cast form.
Project IV: In a process of synthesis, create a scaled form to be occupied by the human body, in various states of activity or relaxation, using the architectural proto-elements of mass, line and plane.
Project V: From a thorough study the given site, create an instrument that amplifies a specific phenomenon, extends the range of perception, or transforms data.
Project VI: This exercise is designed to increase, and act as the culmination of your perceptive and cognitive awareness and studies of space/form relationships this semester. In addition, it adds two new dimensions, of phenomenon and of program [a particular use for the place you are creating]. In doing so you will want to demonstrate the potential of mass, plane and line to define and extend existing spatial conditions so that they appeal to the bodily and intellectual experience.

NAAB Criteria:
6, 12, 13, 14, 32

ARC 202: Design Studio II : Human Experience

Credit Hours	6	Offered: Spring
Type:	Lecture/Laboratory, Required (Design)	Instructor: Doxtater + faculty

Prerequisites: ARC 201

COURSE DESCRIPTION:

This course studies five different categories of human experience in architecture: *wayfinding, task-performance, territoriality, cultural expression and visual non-visual aesthetics*. Such experiences are programmed for two design projects in the semester, and are the primary basis for course evaluation.

Teaching Format: Studio content enhanced with occasional lectures and seminars and related to content in ARC 227 (Architectural Programming).

COURSE OBJECTIVES:

Students in this course are expected to achieve an:

1. awareness of the influences on architectural form of the values and purposes of institutions, clients, users, and society.
2. understanding of how the human body interacts with designed objects in work, living and leisure activities.
3. understanding of the attitudes, beliefs, perceptions, behavior, and specific goals and requirements of one or more user groups.
4. ability to identify user's values, goals and needs; to research applicable code and ADA requirements; and to design a facility responsive to the requirements of the program.
5. ability to develop and use bubble diagrams, precept diagrams, concept diagrams, plans, elevations, sections, and three dimensional models as means to represent and evaluate architectural accommodations of human experience.
6. ability to synthesize knowledge and skills obtained in this course, and previous courses in architectural design.

REQUIREMENTS:

Students are expected to continue the use of the sketch book required in earlier design studios. Particular emphasis will be on buildings visited on the architectural field trips and/or programming, other examples of architecture that might be relevant to individual projects, and sketch ideas for current projects. Format and objectives for assigned projects will be included in each project description.

COURSE TOPICS AND STRUCTURE:

This course explores the relationship of human experience and the spatial and formal characteristics of architecture and related landscape. The studio emphasizes development of design processes including value and goal identification, design concept formation, modeling techniques, and evaluation procedures. Includes lectures, readings and discussion of relevant theories.

Lectures and demonstrations will be used to explain the theoretical and practical goals of each studio project. The project will be understood through the process of analysis, design and re-design in the studio. Class will meet on Mondays, Wednesdays and Fridays from 1:00-4:50 p.m. Any part of class time may be used for discussion or review of the projects as appropriate.

During the studio sessions, projects will be issued and explained. Studio time will be spent working on the projects and discussing the work from previous assignments.

NAAB Criteria:
18, 24

ARC 221: Building Technology I

Credit Hours:	3	Offered:	Fall
Type:	Lectures & Laboratory, Required (Technology)	Instructors:	Christopher Trumble Mary Hardin
Prerequisites:	ARC 102 or permission of instructor		

COURSE DESCRIPTION

Two-module course on the topics: Module I: Introduction to structural principles and precedence. Module II: Introduction to major categories of building materials and methods of construction through historical precedents and contemporary processes.

COURSE OBJECTIVES

Module I:

1. Understanding of fundamental structural elements and systems
2. Ability to design a simple abstract structural system
3. Ability to diagram simple abstract structural conditions
4. Awareness of the role of the architect in structural design
5. Ability to discuss structure utilizing appropriate technical terminology

Module II:

1. Awareness of historical and modern use of major materials (wood, masonry, concrete, steel) definition of "systems" based on historical use of indigenous materials in the Sonoran Desert (modular masonry, monolithic masonry, frame and infill) and their contemporary applications; basic criteria for selection of construction materials (physical, aesthetic, economic)
2. Understanding of composition, basic properties and terminology regarding of basic materials
3. Ability to apply appropriate technologies to access and communicate information about building assemblies

COURSE REQUIREMENTS

Students must complete all projects, homework assignments, quizzes and examinations as defined in this syllabus.

Required Texts:

Module I:
No text is required for this module

Module II:
Allen, Edward, Fundamentals of Building Construction: Materials and Methods, 3rd ed.

COURSE TOPICS & STRUCTURE

Module I:
Lectures will present the principles and concepts of structural behavior, fundamental structural systems, structural precedence, methods of analyzing and diagramming basic forces and the critical review of the laboratory projects. Laboratory sessions will be used for the critique and development of empirical laboratory projects and the collective testing of physical models. The laboratory project requires students to explore structural behavior through the iterative development of an abstract structural design.

Module II:
Lectures will explain the theoretical goals of each section which then will be understood through the process of testing and understanding in the laboratory. Lab sessions may be used for a wide variety of activities. studio-type exercises or reviews, model testing, field trips, discussions, or lectures.
- Introduction to the materials and methods used in construction. Lectures will present the basics of the fundamental building materials (wood, masonry, concrete, steel). Two lectures will focus on each material; one lecture will examine the use of the material throughout history and the spatial qualities created by its structural use; another lecture will outline the processes necessary to produce or refine the material for construction purposes. A laboratory assignment will provide a case study for understanding the order of assembly of materials and the relationship between various materials in an actual building under construction.

NAAB Criteria:
12, 15, 18, 19, 24

ARC 222: Building Technology I

Credit Hours:	3	Offered:	Spring
Type:	Lectures & Laboratory. Required (Technology)	Instructors:	Christopher Trumble Nader Chalfoun
Prerequisites:	ARC 221 or permission of instructor		

COURSE DESCRIPTION

Two-module course on the topics: Module I: The study and design of structural elements through the concepts of force, form, material and connection; the computational analysis of simple trusses utilizing method of joints. Module II: Fundamentals of luminous, thermal and acoustic environmental control systems including daylight, solar geometry, solar physics, human thermal comfort and climatic design.

COURSE OBJECTIVES

Module I:

1. Ability to analyze and diagram basic stresses in structural elements.
2. Ability to design a simple span structure
3. Understanding of structure in terms of force, form, material and connection
4. Ability to analyze simple trusses and truss-like elements using method-of-joints

Module II:

1. Understanding of the principles of sustainability in design decisions that conserve the natural world.
2. Awareness of fundamentals of the physical and environmental systems such as light and daylight, solar energy and geometry, climate, comfort, and acoustics.
3. Understanding of the theories and methods that clarify the relationships between human behavior and human thermal comfort and the physical environment through proper climatic design response.
4. Ability to analyze and evaluate the success of designs through model testing, computer simulation and empirical analysis in the fulfillment of programmatic, technical, contextual and aesthetic objectives.

COURSE REQUIREMENTS

Students must complete all projects, homework assignments, quizzes and examinations as defined in this syllabus.

Required Texts:

Module I:

No text is required for this module

Module II:

Instructor's class notebook, to be purchased from ECS Copy Center at Harvill Building (about $12) 621-7502

COURSE TOPICS & STRUCTURE

Module I:

Lectures will present the social implications of architectural technology, the principles and concepts of structural behavior in terms of *force – form – material – connection*, the analysis and diagramming of simple trusses using the method-of-joints and the critical review of the laboratory projects. Laboratory sessions will be used for the critique and development of empirical laboratory projects and the collective testing of physical models. The laboratory project requires students to explore structural behavior through the iterative development of an abstract structural design.

Module II:

This module emphasizes human perception aspect of the three lumen, thermal, and sonic environments. Important topics of light as a source of energy, solar geometry and solar radiation physics, climate and microclimate design, human thermal comfort, and noise control in outdoor spaces will be introduced and investigated. Methods of assessing those human visual, thermal and hearing comfort levels will rely on physical model testing, computer simulation methods and empirical analysis and calculation methods.

NAAB Criteria:
3, 4, 12, 13, 14, 16, 20, 27

Arch 227: Architectural Programming

Credit Hours: 2 — Offered: Spring 2009
Type: Lecture, Required — Instructor: Doxtater

Co-requisite: ARC 202

COURSE DESCRIPTION

The course introduces programming or pre-design methodologies that seek to define or simulate a comprehensive range of human experience in natural and built settings as a foundation to architectural design processes.

COURSE OBJECTIVES

The course will foster the following:

1. Awareness of the various approaches to architectural programming.
2. Understanding of the important design values and issues that should impact architectural programming.
3. Awareness of research in the area of human/environment relations.
4. Awareness of the environmental needs of special user groups: elderly, handicapped, and young.
5. Ability to develop program information through literature search, interviews, observation, and site analysis.
6. Ability to lead client/user work sessions.
7. Ability to organize and present program information in written and graphic form.
8. Awareness of how a plan for post-occupancy evaluation can be developed and utilized.

COURSE REQUIREMENTS

Class participation, two multiple-choice fill-in quizzes, six preliminary segments of programming project, final program document.

COURSE TOPICS AND STRUCTURE

The class is conducted both as a lecture course where theoretical issues and methodological concepts are presented and as a laboratory in which these ideas are discussed and applied to practical programming problems. The primary topical structure for the course rests on the experiential categories of way-finding, visual and non-visual aesthetics, task performance, social territoriality and cultural expression. The course includes reading assignments, audio-visual presentations, classroom discussions, individual demonstrations, and exercises. The first two-thirds of the course integrates readings, guest speakers, slides and film with graphic evaluation exercises according to the five experiential categories. The final portion of the course uses these same resources and methods to understand and develop aspects of an actual architectural program.

NAAB Criteria:
1, 5, 8, 9, 13

ARC 231: History I: History of World Architecture, Ancient through Medieval

Credit Hours:	3	Offered:	Fall
Type:	Lecture/Discussion	Instructor:	Laura Hollengreen

Prerequisites: None, but permission of the instructor required for freshman enrollment.

COURSE DESCRIPTION

Considers the creation, use, and interpretation of ancient and medieval architecture from the following perspectives: environmental, functional, material, structural, formal, socio-political, and cultural.

COURSE OBJECTIVES

1. To familiarize the student with the principal architectural achievements from prehistory through the Middle Ages.
2. To present a historical understanding of those works in their social and cultural contexts.
3. To help the student acquire and develop the fundamental critical tools of visual and historical interpretation: a descriptive and analytical vocabulary with which to express visual perception verbally; the ability to identify and evaluate different kinds of historical evidence; and a sense of the complex constitution of historical context.
4. To encourage effective oral and written communication through training in argumentation.
5. To teach the student to think critically about the aspirations, constraints, tools, and choices involved in all architectural design, past and present.

COURSE REQUIREMENTS

In addition to mandatory attendance at lecture and regular participation in discussion, the student is expected to complete all assigned readings, occasional in-class writing exercises, two analytical papers, and two exams.

Required Texts:

Michael Fazio, Marian Moffett, and Lawrence Wodehouse, Buildings across Time, third edition (2008)
James Stevens Curl, A Dictionary of Architecture and Landscape Architecture (2006)
Selected other short readings on electronic reserve at http://eres.library.arizona.edu/eres/default.aspx
Online study images via the Imagen database at http://www.imagen.arizona.edu

COURSE TOPICS & STRUCTURE

Lectures and discussion will proceed from a conceptual introduction to fundamental issues and terms through a chronological survey of ancient and medieval traditions which are consistently linked and differentiated by the thematic perspectives listed in the course description above. The traditions covered include:

Prehistoric Architecture: Earth, Sky, and Structure
Egyptian Architecture: Old Kingdom Pyramids and New Kingdom Temples (2 lectures)
Ancient Near Eastern Architecture and Urbanism: Sumerian, Assyrian, Persian
Bronze Age Architecture in the Aegean: Minoan and Mycenaean
Greek Architecture and Urbanism: The Orders, Polis/Acropolis, Hellenistic Experimentation, Urban Planning (4 lectures)
Roman Architecture and Urbanism: Building Types and Building Patrons (3 lectures)
Pre-Columbian Architecture and Urbanism of the Americas: Olmec, Mayan, Aztec, Incan
Early Asian Architecture and Landscape Architecture: Buddhist, Hindu, Shinto (2 lectures)
Early Christian and Byzantine Architecture: Tombs and Churches (2 lectures)
Early Islamic Architecture: Mosques and Palaces
Early Medieval Architecture: Carolingian, Proto-Romanesque in Spain, Romanesque (2 lectures)
Gothic Architecture in France and Elsewhere (3 lectures)
Medieval Military and Vernacular Architecture and Medieval Urbanism (2 lectures)

NAAB Criteria:
1, 4, 5, 8, 10, 12, 13

ARC 232: History II: History of World Architecture, Renaissance to the Present

Credit Hours:	3	Offered:	Spring
Type:	Lecture/Discussion	Instructor:	Laura Hollengreen

Prerequisites: ARC 231 or permission of the instructor.

COURSE DESCRIPTION

Considers the creation, use, and interpretation of architecture from the fifteenth through the twentieth century according to the following perspectives: environmental, functional, material, structural, formal, socio-political, and cultural.

COURSE OBJECTIVES

1. To familiarize the student with the principal architectural achievements from the fifteenth through the twentieth century.
2. To present a historical understanding of those works in their social and cultural contexts.
3. To help the student acquire and develop the fundamental critical tools of visual and historical interpretation: a descriptive and analytical vocabulary with which to express visual perception verbally; the ability to identify and evaluate different kinds of historical evidence; and a sense of the complex constitution of historical context.
4. To encourage effective oral and written communication through training in argumentation.
5. To teach the student to think critically about the aspirations, constraints, tools, and choices involved in all architectural design, past and present.

COURSE REQUIREMENTS

In addition to mandatory attendance at lecture and regular participation in discussion, the student is expected to complete all assigned readings, occasional in-class writing exercises, a major research project, and three exams.

Required Texts:

Michael Fazio, Marian Moffett, and Lawrence Wodehouse, Buildings across Time, third edition (2008)
Ulrich Conrads, ed., Programmes and Manifestoes on 20th-Century Architecture (1975)
James Stevens Curl, A Dictionary of Architecture and Landscape Architecture (2006)
Selected other short readings on electronic reserve at http://eres.library.arizona.edu/eres/default.aspx
Online study images via the Imagen database at http://www.imagen.arizona.edu

COURSE TOPICS & STRUCTURE

Lectures and discussion will proceed from a conceptual introduction to fundamental issues and terms through a chronological survey of traditions from the Renaissance to the present; these traditions are consistently linked and differentiated by the thematic perspectives listed in the course description above. The traditions covered include:

Italian Renaissance Architecture and the Architect (5 lectures)
Renaissance Architecture outside Italy and in the New World
Mannerist Architecture and Landscape Architecture in Italy and Elsewhere
Baroque Architecture and Landscape Architecture in Italy and France (2 lectures)
18th-Century Architecture and Urbanism: Neoclassical, Visionary, and Picturesque (2 lectures)
Early Architecture and Urbanism in North America
The Study of Vernacular Architecture
Implications of Industrialization for Architecture: New Materials, Structures, and Building Types
19th-Century Ethics/Aesthetics in Architecture and Urbanism: Neoclassicism, Neomedievalism, Arts and Crafts (2 lectures)
Modern Architecture and Urbanism: Experimentation, the Avant-Garde, the International Style (5 lectures)
Dissenters and the Postmodern Critique (3 lectures)

NAAB Criteria:
3, 5. 7

ARC 241: Design Communication I

Credit Hours:	3	Offered:	Fall
Type:	Lecture/Laboratory, Required (Communication)	Instructor:	C. Domin / T. Powers

Prerequisites: ARC 102 or permission of instructor

COURSE DESCRIPTION

This course emphasizes the development of digital communication techniques for the study and presentation of architectural ideas. Essential methods of digital drawing are investigated through a series of interrelated exercises. Material exploration of the design research case studies will be developed and interrogated concurrently with our digital production.

A case study method will be employed in this course and we will utilize digital drawing as a method and technique to uncover the inherent relationships between architectural practice, history and building technology. In this context, the case study acts as a vehicle for understanding the role and uses of digital technology in our profession. All assignments and quizzes contain a *unit of knowledge* and a *unit of skill*, which will be emphasized and clearly articulated in order to develop a sophisticated understanding of the subject matter and software employed in this course.

COURSE OBJECTIVES

1. Further develop the mechanics of drawing and physical modeling.
2. Develop skills related to the intelligent use of digital drawing and modeling.
3. Develop both the syntax and grammar of design communication.
4. Become intimately engaged with a body of work through systematic case study analysis.

COURSE REQUIREMENTS

Class Preparation: The laboratory activities and requirements for presentation will be discussed each week in the lecture, with supporting handouts distributed as necessary. As the laboratory's activities are considered cumulative, completion of all activities in sequence is mandatory to receive a passing grade. Students are required to be present (physically and mentally) in class with an operable laptop or desktop computer. All required software must be installed and operable.

Assignments, Readings and Presentations: Student work will consist of in-class exercises and critiques. Readings will be assigned to develop skills but also to provoke discourse. The readings will assist with understanding the goals and requirements of the activities and phases of the laboratory, and to gain essential skills in the communications methods, and the introduction/development of a variety of digital platform. Electronic presentations of work will be projected in the auditorium periodically in order to critique and further the progress of course work. Projects will be developed in both individual and collaborative contexts in the laboratory component of this course.

Required Text:
Omura, George, Mastering AutoCAD 2009; Sybex/Wiley Publishing, 2008.

Required Software: AutoCAD Architecture
AutoDesk 3ds Max or Viz
Adobe Creative Suite

COURSE TOPICS & STRUCTURE

Phase I: *Digital / Analog interface. Production and output of orthographic drawings. Introduction to 2d AutoCAD, and related drawing standards. Utilizing Case study method throughout the duration of the course.*

Phase II: *Development of 2d and introduction of 3d digital drawing. Creation of integrated drawing sets, and composition of composite 2d/3d drawing information/composition.*

Phase III: *Digital / Material interface. Development and realization of scale models and/or full-scale details of case study project information.*

Phase IV: *Comprehensive development of 3d AutoCAD model and related drawing standards. Introduction to digital rendering methods and platforms.*

Phase V: *Spatial and Tectonic ordering systems. Production, composition and output of 3d rendering, both analytical and observational, with fully optimized light and material conditions.*

NAAB Criteria:
6, 15, 16, 17, 19, 28. 32, 34

Arch 301: Design Studio III: Land Ethic — School of Architecture, University of Arizona

Credit Hours: 6
Type: Studio & Lectures, Required (Design)
Prerequisite: ARC 202

Offered: Fall
Coordinator: Brittain
Instructors: Faculty

COURSE DESCRIPTION:

Subject:
Understanding and testing of ethical relationships with the land as a necessary preparation for the act of building. Not to see the land primarily as a *resource* that belongs to us to be developed, but rather as a *source* of sensibility that we must learn to belong to by careful examination and grounding of our actions.

Method:
Empirical examination of the different components of what we call land observing an experimental protocol based on a *land ethic ~ aesthetic research* binary.

COURSE OBJECTIVES

- Understanding through discussion and clarification of the concept(s) of land ethic and ethical propositions.
- Ability to observe and analyze phenomena regarding the earth (geology), the water (hydrology), and the light and air (meteorology) in the Sonoran Desert region.
- Ability to experimentally play with concepts and empirical observations towards the formulation of construction proposals that are guided by and embody ethical relationships with the land.

REQUIREMENTS

Field Journeys:
Field journeys are required to induce first hand experience in natural events and phenomena and provide the initial empirical basis for design/construction proposals. Other scheduled participation will be specified with each topic.

Housekeeping:
Activities in the field as well as in the studio shall reflect a deliberately ethical behavior.

Work Products:
All work products (drawings, models, installations, notebooks, etc.) shall observe careful standards of craftsmanship, proper use of materials and equipment, economy of means and aesthetic intention.

Required Readings:

Reyner Banham, "Marks on the Landscape", *Scenes in America Deserta*. Salt Lake City: Peregrine, 1982.

Bernard Cache, "Territorial Image" and "Architectural Image", *Earth Moves: The Furnishing of Territories*. Cambridge: MIT Press, 1998.

Craig Childs, "Maps of Waterholes" and "Water that Waits", *The Secret Knowledge of Water*. Seattle: Sasquatch Books, 2000.

Joseph Wood Krutch, "Conservation is not Enough", *The Voice of the Desert: A Naturalist's Interpretation*. New York: William Morrow, 1955.

Scott Momaday, "An American Land Ethic". *The man made of words: essays, stories, passages*. New York: St. Martin's Press, 1997.

Gary P. Nabhan. "You Make the Earth Good by Your Work", *The Desert Smells Like Rain*. New York: North Point Press, 1999.

COURSE TOPICS AND STRUCTURE

There are 3 observatory topics and 1 laboratory/project topic:

Observatory One:	light & air ~ meteorology	regimes ~ events	wavelength ~ chroma	2 weeks
Observatory Two:	water ~ hydrology	cycles ~ flows	pools ~ riffles	2 weeks
Observatory Three:	earth (ground) ~ geology	time ~ space	longitude ~ latitude	2 weeks
Laboratory/Project:	dwelling			8 weeks

NAAB Criteria:
6, 16, 17, 18. 21, 23, 24, 28

ARC 302: Design Studio IV: Tectonics

Credit Hours:	6	Offered:	Spring
Type:	Lecture/Laboratory, Required (Design)	Instructor:	Christopher Trumble + 3 instructors
Prerequisites:	ARC 301 or permission of instructor		

COURSE DESCRIPTION

Subject: A definition of tectonics, as given in the discipline of geology, is: the formation [de-formation] of the earth's crust, the forces involved and the resulting forms. This morphological definition may be extendended to the design and construction of buildings with the distinction that the materials may be chosen in a selective aesthetic and technical process, the forces may be organized as intelligent structures, the construction methods are the effective pursuit of material creativity and technological innovation, the motive forces are the proposition and satisfaction of human needs and desires, and the resultant forms are expressions of human labor and culture.

Method: Conceptual and empirical examination of material properties and fundamental aspects of structure, roles of structure versus enclosure and anthropometric space, staging of materials in a construction sequence, and comprehensive design of a building by means of selective material technologies and careful examination of how the different building components are detailed and assembled in a coherent whole.

COURSE OBJECTIVES

1. Understanding of material properties and development of material craftsmanship.
2. Understanding of structural capacity of materials in response to gravity and applied forces, and empirical development of structural-spatial creativity.
3. Understanding of construction sequence and effective inventive engagement of construction techniques.
4. Comprehensive application of knowledge in the design of a building seeking quantitative measures of physical efficiency: i.e., mechanical, structural, thermal, optical, etc.; and qualitative criteria of sensorial performance: i.e., auditory, haptic, kinetic, visual, etc.

COURSE REQUIREMENTS

Field journeys will be required to induce first hand experience of exemplary buildings providing in-situ demonstration of material, structure and construction assemblies, as well as perceptual evidence of spatial and programmatic qualities.

Housekeeping: Activities in the field as well as maintenance of studio space shall reflect a creative yet respectful behavior.

All work products (drawings, models, material probes, notebooks, etc.) shall observe careful standards of craftsmanship, proper use of materials and equipment, economy of means and aesthetic intention.

Required Texts:

Bohm, David. *VIA 2: Structures Implicit and Explicit*, "On Creativity", pp 69-74. Philadelphia: U. of Pennsylvania. 1973.

Frampton, Kenneth. *Studies in Tectonic Culture: the poetics of construction in nineteenth and twentieth century architecture*, introduction "Reflections on the Scope of the Tectonic." Cambridge, MIT Press. 1995.

Pye, David. *The nature and art of workmanship*, "Craftsmanship of risk and craftsmanship of certainty", pp 4-9; "Quality in workmanship", pp 13-27. London: Cambridge UP, 1968.

Rice, Peter. *An Engineer Imagines*, "The Chameleon Factor", pp 145-147. London: Ellipsis/Artemis, 1194.

COURSE TOPICS & STRUCTURE

This course will consider tectonics the expression of structure, materials and methods of construction. Tectonics will be explored abstractly and developed in a comprehensive context. Program interpretation and the mediation of site conditions will serve as design catalysts.

There will be three projects: The first project is an introduction to tectonics and challenges students to develop an understanding of material formation / deformation through physical manipulation [2 weeks]. The Lyceum competition will be the second project; a blacksmithing studio [6 weeks]. The third project will emphasize the integration of tectonics and comprehensive design. The program will define specific needs for spatial adjacencies, circulation, lighting, ventilation and environmental controls, which must be resolved through appropriate use of materials, geometry of structure and external envelope, and internal configuration and partitioning of space [6 weeks].

Field trips to fabrication facilities will be scheduled periodically.

NAAB Criteria:
10, 12, 15, 18, 19, 21, 24

ARC 321: Building Technology III

Credit Hours:	3	Offered:	Fall
Type:	Lectures & Laboratory, Required (Technology)	Instructors:	Colby Moeller Christopher Trumble
Prerequisites:	ARC 222 or permission of instructor		

COURSE DESCRIPTION

Two-module course on the topics: Module I: Introduces ecological and technological issues relating to sustainable design of small and intermediate scale buildings. This includes environmental issues of human thermal comfort, climate, climate responsive design and micro-climate analysis. Daylight, natural ventilation, wall construction, acoustics, and small scale building mechanical systems are all discussed. All topics are presented in the context of environmentally responsive design and their integration into building design. Class contents and information are consistent with the Architecture Registration Exam. Module II: The study and design of one, two and three-way structural systems; tributary areas and the computational analysis of beams.

COURSE OBJECTIVES

Module I:

1. Understanding climate and climate responsive building design.
2. Ability to design appropriate wall assemblies for a particular climate.
3. Awareness of small scale mechanical systems for buildings.
4. Understanding of natural ventilation and its integration into building design.
5. Awareness of basic acoustical issues in buildings
6. Ability to build and test a down draft evaporative cool tower.

Module II:

1. Understanding of the interrelationships of structural systems, elements and connections
2. Ability to design a simple abstract one, two or three-way structural system
3. Understanding of structural tributary areas and the ability to generate load diagrams for beams
4. Ability to determine loads/reactions, shear diagrams and moment diagrams for beams and cantilevers

COURSE REQUIREMENTS

Students must complete all projects, homework assignments, quizzes and examinations as defined in this syllabus.

Required Texts:

Module I:

1. *Heating Cooling and Lighting*, Norbert Lechner, (Arch. Library TH7222 .L43 1991)
2. Instructor's Class Book, Dr. N. Chalfoun, V. 4.3, 2008
   to be purchased from ECS Copy Center at Harvill building (approx. $12+) 621-7502
3. *Architectural Acoustics*, M. David Egan, (Arch. Library TA 365 .E33 1988)Module II:

Module II:
No text is required for this module

COURSE TOPICS & STRUCTURE

Module I:
Lectures will present the principles and methods of each topic which then will be understood through the process of testing and understanding in the laboratory. Lab sessions may be used for a wide variety of activities: studio-type exercises or reviews, model testing, field trips, discussions, or lectures. This module will introduce theories and concepts of heat balance between the human body and its surrounding environment including human physiology and thermal comfort conditions, climate and micro-climate including bio-climatic evaluation. Building thermodynamics, ventilation, and mechanical systems. Design criteria and integration of all major active and passive building systems are discussed. The module will also introduce basic theories of acoustics including sound absorption, noise control and sound isolation.

Module II:
Lectures will present the principles and concepts of structural behavior, tributary areas, the analysis and diagramming of simple beams and the critical review of the laboratory projects. Laboratory sessions will be used for the critique and development of empirical laboratory projects and the collective testing of physical models. The laboratory project requires students to explore structural behavior through the iterative development of an abstract structural design.

NAAB Criteria:
17, 18, 21. 24

ARC 322: Building Technology IV

Credit Hours:	3	Offered:	Spring
Type:	Lectures & Laboratory, Required (Technology)	Instructors.	Mary Hardin Christopher Trumble

Prerequisites: ARC 321 or permission of instructor

COURSE DESCRIPTION

Two-module course on the topics: Module I: The study of building tectonics; integration of theory, material, material assemblage, and construction methodology. Module II: The study and design of wood structures; the computational analysis of wood beams, columns and connections.

COURSE OBJECTIVES

Module I:

1 Understanding of how building materials and detailing are manifestations of a design idea.
2. Ability to select among types of systems for a given building program/function.
3. Understanding of construction sequencing and methodology
4. Understanding of Architect's role in specification of building materials and Construction Administration..

Module II:

1. Understanding of wood structural systems
2. Understanding of the technical and conceptual components of wood structures
3. Ability to conceive, design, develop, model and evaluate a simple wood structure
4. Ability to analyze simple beams column and connections
5. Awareness of building codes and issues related to wood construction

COURSE REQUIREMENTS

Students must complete all projects, homework assignments, quizzes and examinations as defined in this syllabus.

Required Texts:

Module I:

Allen, Edward. *Fundamentals of Construction*. 3rd, edition, New York: Wiley. 1999

Module II:

Ambrose, James, *Simplified Design of Wood Structures*, John Wiley & Sons. Inc.

COURSE TOPICS & STRUCTURE

Module I:

Lectures will explain the theoretical goals of each section which then will be understood through the process of testing and understanding in the laboratory. Lab sessions may be used for a wide variety of activities: studio-type exercises or reviews, model testing, field trips, or discussions.

- Understanding of "tectonics": the integration of theory, design and construction. Lecture material will cover issues that inform design; construction sequence, tolerances, integration of structural and mechanical systems. Exercises are intended to encourage development of an intuitive sense and working knowledge of construction logic. The focus of the course will be a full term project investigating the process of construction from the ground up. Critical junctures will be analyzed: where a building meets the ground, where a building meets the sky, how the building mediates those two realms. Masonry, steel, concrete, and glass will be the primary materials utilized in the investigations. Case study examples will demonstrate how criteria are developed in order to make material choices, and system assemblages. Construction site photographs and working drawings will be used to discuss design intentions, important parameters of projects and resolution of problems during design and construction phases.

Module II:

Lectures will present the principles and concepts of structural behavior, the analysis and diagramming of simple wood beams, columns and connections; and the critical review of the laboratory projects. Laboratory sessions will be used for the critique and development of empirical laboratory projects and the collective testing of physical models. The laboratory project requires students to explore structural behavior through the iterative development of an abstract structural design.

NAAB Criteria:
3, 4, 15, 17, 33

ARC 326: Site Analysis and Planning

Credit Hours:	2	Offered:	Fall
Type:	Lecture/Laboratory, Required	Instructor:	Richard G. Brittain Eric Scharf

Prerequisites: ARC 202, ARC 227; concurrent registration, ARC 301

COURSE DESCRIPTION

A course introducing students to the study of context in which architecture is to be developed. This course complements ARC 227 Architectural Programming as the second of the pre-design studies essential to the understanding of architecture.

COURSE OBJECTIVES

1. Understand the role of site analysis and planning in the design process
2. Understand various theoretical approaches to site analysis and planning
3. Understand the role of consultants in the site analysis and planning process
4. Understand the information that is required for a comprehensive site analysis and how to locate it e.g. public databases, web-based resources, references, map sources, GIS, ...
5. Understand the regulatory requirements and designer's responsibility for public health, safety and welfare
6. Ability to utilize tools to analyze and document the immediate site e.g. transit, compass, clinometer, camera, shade mask solar analysis, triangulation/rotational mapping of vegetation, ...
7. Ability to apply a methodology of graphic and digital media to clearly analyze and communicate varied site information
8. Ability to develop a heightened sensibility and awareness of the uniqueness and fragility of the Sonoran Desert context to encourage a sustainability-based land ethic and architecture
9. Ability to utilize a team approach to efficiently gather and professionally communicate the site analysis and planning information

COURSE REQUIREMENTS

Student work will consist of in-class discussions and site analysis projects. Two projects will be conducted in teams directed by students. The four teams for Project 1 will match the ARC 301 studio sections. Project 1 requires the analysis of a rural-suburban site owned by the College which provides the location for the ARC 301 studio dwelling design exercise to be given mid-semester. Each studio section will produce site analysis and planning documents. Project 2 requires each student to synthesize his or her Project 1 site analysis work to determine two desirable alternative dwelling locations by evaluating each for its respective advantages and disadvantages. Project 3 requires the analysis of various pre-selected urban sites, each one with its own specific challenging conditions. Small teams will analyze each of these sites and then identify their respective development potential. These case studies will be presented to the entire class so that all the students learn about the particular site conditions that influenced the analysis, planning and proposed development.

Reference Texts:

White, Edward T. Site Analysis: Diagramming Information for Architectural Design. Tucson, AZ: Architectural Media, 1983.*
LaGro, James A. Jr. Site Analysis: Linking Program and Concept in Land Planning and Design, 2nd Edition. New York: John Wiley and Sons, 2008.*
Lynch, Kevin and Gary Hack. Site Planning. Cambridge, MA: MIT Press, 1984.*
McHarg, Ian. Design with Nature. New York: Wiley, 1994.*

COURSE TOPICS & STRUCTURE

Lectures and demonstrations will provide the theoretical and technical background required for students to perform a comprehensive site analysis and planning methodology. The course will combine classroom lectures with site fieldwork organized by student teams. The initial site analysis and planning project will prepare students for individual synthesis and design of a desert dwelling in ARC 301: Design Studio III; Land Ethic beginning about 7 weeks into the semester. The experience of analyzing an actual site will complement the design process enabling the students to see the inter-relationships between the courses and their pedagogical activities. It is intended that this will lead to more informed, thorough, responsible and ethical desert dwellings. The second half of the course will focus upon fieldwork for urban site analysis, and planning exercises for a variety of architectural projects. A team approach will be employed for these projects, as well.

NAAB Criteria:
1, 2, 4, 8, 9, 10, 15

ARC 332: World History III: Modern and Contemporary History and Theory

Credit Hours:	3	Offered:	Spring
Type:	Lecture/Discussion, Required (History/Theory)	Instructor:	Annie Nequette

Prerequisites: ARC231 History I, and ARC 232 History II.

COURSE DESCRIPTION

This course is a study of Modern and Contemporary Architecture through a critical examination of particular works and theoretical writings, in an attempt to locate the formative conditions, duration, breadth, and effect of the principles of Modernism on the discipline of architecture today. Website Address: http://architecture.arizona.edu/courses/arc332/arc332

COURSE OBJECTIVES

1. Continue development of the analytical tools—reading comprehension, discussion and writing--necessary for the understanding of history and theory. [NAAB criteria 1]
2. Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards. [NAAB criteria 2]
3. Ability to gather, assess, record, and apply relevant information in architectural course work. [NAAB criteria 4]
4. Understanding Western architectural canons and traditions in architecture, landscape and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them. [NAAB criteria 8]
5. Understanding of parallel and divergent canons and traditions of architecture and urban design in the non-Western world. [NAAB criteria 9]
6. Understanding of national traditions and the local regional heritage in architecture, landscape design and urban design, including the vernacular traditions. [NAAB criteria 10]
7. Understanding of the principles of sustainability in making architecture and urban design decisions that conserve natural and built resources, including culturally important buildings and sites, and in the creation of healthful buildings and communities. [NAAB criteria 15]
8. Understand the relevance of the study of contemporary history and theory to the studio and practice of architecture.

COURSE REQUIREMENTS

Required Texts: Readings are assigned to correspond with the lectures, refer to the schedule and link to e-reserves for weekly essays on-line and for term paper sources. [note: not all essays are listed below]
Required text for the course is *Modern Architecture since 1900,* by Curtis, William J. R., 3rd edition (Oxford: Phaidon, 1996)
Primary essays: Design Ecology, Ethics and the Making of Things, William McDonough, 1993
Reflections on the Scope of the Tectonic, Studies in Tectonic Culture, Kenneth Frampton, 1996
Building Dwelling Thinking, Martin Heidegger, 1951
Critical Regionalism: Six Points Toward an Architecture of Resistance, Kenneth Frampton, 1983
Imagen, the online multi-media database at the University of Arizona, is the visual reference for the course: http://www.imagen.arizona.edu/

COURSE TOPICS & STRUCTURE

The course primarily consists of combined lectures and discussions, with one term paper and three exams. See the schedule for lectures, discussions, exams etc. Your active engagement is required and includes attendance and participation in lectures and discussions (10% of grade), in written exams (50%) and in the term paper (40%).

Weeks 1-6: The course begins in the present with the essays, examples of current work and discussions on *sustainability, tectonics, critical regionalism* and *phenomenology*. Through looking at contemporary work and theories worldwide the students gain an appreciation for the values and conditions shaping the built environment and their place, as architects, in it.
Weeks 7-8: Formative Strands of Modernism: late 18th and 19th century industrialism; the theories of Laugier, Schinkel, Semper, Pugin, Ruskin, Morris, Viollet-le-Duc, Loos and Einstein, etc., and the work of Paxton, Eiffel, Perret, Loos, Wright, Gaudi, Wagner, Sullivan, Reitvelt, Melnikov and Malevich, etc.
Week 9: First Principles of Modernism: Le Corbusier, Gropius, Mies van der Rohe, Wright, Shindler, Chareau and Gray, etc.
[Week 10 Spring Break]
Week 11: Synthesis and Critiques of Modern architecture: Aalto, Wright, Le Corbusier, Mies, Terrangni, Speer, etc.
Weeks 12-14: International Transformations: Late Mies, Le Corbusier + Wright, Kahn, Scarpa, etc.
Week 15: Post-modern topics: Historicism, Late Formalism and Deconstruction, the Body and Gender, etc.

The topic of the term paper is the intersection of sustainability and one of the other core topics found in the primary essays. Summaries of the essays, a proposal, outline for draft, draft and final paper includes illustrations of contemporary work.

NAAB Criteria:
3, 5, 7

ARC 341: Design Communications II

Credit Hours:	3	Offered:	Fall 2008
Type:	Lecture/Laboratory, Required (Communications)	Instructor:	C. Domin / T. Powers

Prerequisites: ARC 241 or permission of instructor

COURSE DESCRIPTION

This course is a continuation of Design Communication I, Arc 241, with emphasis on further development of communication techniques for the analysis, presentation and development of architectural ideas. The content and theme of Design Communication II will examine the transfer and dissemination of two-dimensional drawings/renderings and three-dimensional physical models within a web-based format. Transferal to this new digital format allows for further development of the materials, expanding the methods, boundaries, and speed of communication. Essential methods and skills of *Building Information Management (BIM)* and digital rendering will be investigated and acquired utilizing the students' own architectural work as the materials to be manipulated, presented and communicated.

COURSE OBJECTIVES

1. To understand the mechanics of drawing, physical modeling, and digital modeling
2. To advance skills of layout and diagramming in two and three- dimensional media.
3. To develop a constructive relationship between the different media of architectural communication.
4. To promote and understand the current methods of architectural communication and its modern representations using current software, photography, scanning and editing tools.

COURSE REQUIREMENTS

Class Preparation: The laboratory activities and requirements for presentation will be discussed each week in lecture/laboratory, with supporting handouts distributed as necessary. As the laboratory's activities are considered cumulative, completion of all activities in sequence is mandatory to receive a passing grade. Students are required to be present in class.

They should bring their laptop computers and digital cameras to all classes, and must be prepared to work in a variety of media, both electronic and physical.

Assignments, Readings and Presentations: Student work will consist of in-class exercises and critiques. Readings will be assigned to develop skills but also to provoke discourse. The readings will assist with understanding the goals and requirements of the activities and phases of the laboratory, and to gain real skills in the communications methods, portfolio construction and the BIM platform. Electronic presentations of work will be projected in the auditorium periodically in order to critique and further the progress of course work. Projects will be developed in both individual and collaborative contexts in the laboratory component of this course.

Required Text:

Greg Demchak, Tatjana Dzambazona & Eddy Krygiel, Introducing Revit Architecture 2009; Sybex/Wiley Publishing, 2008

Required Software: AutoCAD Revit Architecture Suite 2009
Adobe Creative Suite to include: Photoshop, Illustrator, Flash, Dreamweaver

COURSE TOPICS & STRUCTURE

Phase I: The Development of a Group Website. Student sections will create a weblog. This blog will contain and allow access to present student work in current Studios, allowing the rapid transfer of information (such as site analysis products, digital mapping, 3 dimensional models) between students and other students, between students and instructors.

Phase II: The Development of the Individual Website. Each Student will create a professional weblog, which will house access to their architectural portfolio. The nature of the blog will be attractive, communicative and serious…considered as the rapid conveyor, the actual tool the student would present to a prospective employer and/or a client.

Phase III: Review, Critique and Documentation of student work/ Photography Lab. Students will assemble, review and modify their architectural work, including 2 dimensional drawings and 3 dimensional physical models. Using the CALA photography and computer labs, the students will digitally photograph and scan their work.

Phase IV: Creation of an electronic portfolio. Using the digitized material from Phase III and the modification/editing tools of the required software, the students will create an electronic portfolio. The portfolios will be linked, for access, from their individual weblogs.

Phase V: Introduction to Building Information Modeling. The students will be introduced to AutoDesk Revit in both lecture and laboratory. This will include the completion of workshops and assignments as presented in class. Completed work will be added to the portfolio and disseminated digitally.

NAAB Criteria:
11, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 28

ARC 401 Design Studio V: Technical Systems

Credit Hours:	6	Offered:	Fall
Type:	Lecture/Laboratory, Required (Design)	Instructor:	Powers + 3 instructors
Prerequisites:	ARC 302 or permission of instructor		

COURSE DESCRIPTION:
The content and theme of this fourth year architecture studio will be the design and programming of a project/building/site that will develop with systematic clarity. Emphasis will be on future/sustainable oriented problem identification, efficient utilization of resources, the appropriate interface with contextual activities and building systems.

COURSE OBJECTIVES:
The goal of the course will be to continue to utilize all skills and established knowledge obtained in previous architectural course work, with new and extended emphasis on architectural analysis and building systems, including:

structural systems, active and passive cooling & heating, environmental controls, materials & methods, sustainable & integrative systems and investigations of their application(s), site analysis & planning, regional, landscape & urban analysis, typology & precedent study, programming, presentation methods & modeling, including BIM platform, and energy analysis.

REQUIREMENTS:
Project:
The project's activities and requirements for presentation will be discussed in STUDIO, with supporting handouts distributed as necessary. As the project's activities are considered cumulative, completion of all activities in sequence is mandatory to receive a passing grade.
Required Readings:
The Architecture of Happiness, Alain De Botton, Random House/Vintage , April 2008 http://www.amazon.com/Architecture-Happiness-Vintage-Alain-Botton/dp/0307277240/ref=sr_1_1?ie=UTF8&s=books&qid=1219609637&sr=1-1

Introducing Revit Architecture 2009; Greg Demchak, Tatjana Dzambazona & Eddy Krygiel, Sybex/Wiley Publishing, 2008 http://www.amazon.com/Introducing-Revit-Architecture-2009-Beginners/dp/047026098X/ref=pd_bbs_sr_1?ie=UTF8&s=books&qid=1219609262&sr=8-1

Required Software:
AutoCAD *Revit* Architecture Suite 2009

AutoCAD *Revit* Structure Suite 2009

AutoCAD *Revit* MEP Suite 2009

AutoCAD *Civil 3D*

Note: the above *Autodesk* Design and Engineering Software should be obtained through free downloads of Student/Educational versions by going to the following website: autodesk.com/edcommunity

Sketchbook
Each student is required to keep a sketchbook to be made available at all critiques and reviews. The sketchbook will be actively engaged as a means of translating critical thought with the hand—providing a record/trace of your inquiry and project development referenced in the execution of your project and in your future work as a student.
Field trips, lectures and Presentations
Field trips will be scheduled during regular class time. If a field trip is planned to occur outside of the scheduled course days or hours, attendance will be optional.

Lectures and presentations will occur in Lecture Hall room 103, and will be scheduled through the course of the semester. Many presentations are planned to support the Studio activities...students will be given proper prior notice of these presentations and attendance is mandatory.

COURSE TOPICS AND STRUCTURE:
The course organization proposes a clear methodological approach to the making of architecture. A paradigm will be established that links analysis, transition, ordering, empirical testing and application. Simply stated, we will follow the model of an architect, who after earning a commission, engages in ***activities*** that are based on, concerned with, and verifiable by observation and experience.

ARC 402: Design Studio VI: Options

Credit Hours:	6	Offered:	Spring
Type:	Lecture/Laboratory. Required (Design)	Instructor:	Hardin + + 3 instructors
Prerequisites:	ARC 401 or permission of instructor		

COURSE DESCRIPTION
Design studio options.

COURSE OBJECTIVES
Vary by section.

REQUIREMENTS
Student work will consist of in-class or on-site design work and extended research and design work outside of class hours. Assignments will vary from year to year and section to section. A detailed syllabus will be provided to students by each section instructor. Interim reviews and final reviews of projects are required of all students. Deadlines and formats will be given in individual studio meetings. Readings will be assigned to complement the studio projects.

COURSE TOPICS AND STRUCTURE
This course will be conducted in a studio setting in sections with varied contents and formats. Each section will be headed by a different faculty member of the School of Architecture and will offer a different set of themes and projects within the basic outline of the course description.

NAAB Criteria:
7, 11, 15, 19, 20, 21, 22, 23, 24

ARC 421: Building Technology IV

Credit Hours:	3	Offered:	Fall
Type:	Lectures & Laboratory, Required (Technology)	Instructors:	Beth Weinstein
Prerequisites:	ARC 322 or permission of instructor		

COURSE DESCRIPTION

Two-module course on the topics:
Module I: The study of active and passive environmental control systems, building systems for circulation, fire safety, communication, water and waste, and principles and systems of electricity in medium and large size structures.
Module II: The study of building enclosure materials, connections, and systems, through principles, concepts, and their integration in architecture.

COURSE OBJECTIVES

Modules I and II:

1. Ability to work collaboratively in a team with other students.
2. Awareness of the principles and theories that deal with the environmental context and the architect's responsibility with respect to global environmental issues, including sustainability, conservation and intelligent use of natural resources, relevant codes, regulations and standards and their application to physical and environmental systems.
3. Understanding of the theories and methods that clarify the relationships between human behavior and physical environment including design of active and passive heating, cooling and lighting systems, water and waste.
4. Understanding of the life safety requirements in building design.
5. Understand to role of material, detail and assembly strategies in building enclosures for the making of sustainable/regenerative and healthful environments
6. Understanding the integration into enclosure systems of environmental strategies, such as lighting, acoustics, climate modification
7. Understanding basic principles, appropriate applications, and performance of building enclosure materials, details and assembly systems.

COURSE REQUIREMENTS

Students must complete all projects, homework assignments, quizzes and examinations as defined in this syllabus.

Required Texts:

Modules I and II:
Edward Allen, *Fundamentals of Building Construction: Materials and Methods*, 4th edition
Benjamin Stein + John S. Reynolds, *Mechanical and Electrical Equipment for Buildings*, 10th Edition

COURSE TOPICS & STRUCTURE

Module I: Environmental Controls
Lectures will cover the principles of thermal comfort and control, psychrometry, air-conditioning systems in buildings, electric power and energy, the integration of incandescent and fluorescent lighting, and of photovoltaic systems into the design of buildings. The integration of waste, water, and vertical transportation systems will be studied. Issues of building communication and life safety are discussed.
Laboratory sessions will study the integration of systems in real world scenarios and use calculations to size systems for hypothetical projects. Fieldtrip(s) will focus on air conditioning, water and waste systems in buildings, electrical distribution in large scale buildings, lighting design and fire safety.

Module I: Materials and Methods
Lectures will cover a number of issues that inform design of the building envelope: materials and related forming and assembly methods, tolerances and failure, performance, and integration of structural and mechanical systems, and exemplary precedents. The quizzes cover key principles of enclosure design and these incorporated into exemplary projects. Through a team project, students design a building enclosure. Critical examples from a selected architects' office as well as an unfamiliar climate and context are researched to determine each team's design goals and strategy. The completed project includes general elevations and detailed resolution of critical junctures explored through digital models and drawings, physical models in addition to documented research of the precedents and climate context.

NAAB Criteria:
2, 7, 18

ARC 422: Building Technology VI

Credit Hours:	3	Offered:	Spring
Type:	Lectures & Laboratory, Required (Technology)	Instructors:	Mark Mismash
Prerequisites:	ARC 421 or permission of instructor		

COURSE DESCRIPTION

Two-module course on the topics: Module I. The study and design of steel structures; Maxwell diagramming of long span steel trusses and the computational analysis of steel beams, columns and connections. Module II: The study and design of concrete structures: the computational analysis of concrete beams, slabs, footings and connections.

COURSE OBJECTIVES

Modules I and II:

1. Provide students with a creative and rational understanding of the design and employment of steel and concrete structural systems based on an understanding of material properties, structural behavior, and sound engineering practices.
2. Enable students with the ability to design and analyze truss and cable systems.
3. Enable students with the ability to understand how forces are transferred through a structural system.
4. Enable students with the creative potential of steel and concrete as a building material.
5. Provide students with an understanding of the relationship between form and structure and implement this understanding in the design process.

COURSE REQUIREMENTS

Students must complete all projects, homework assignments, quizzes and examinations as defined in this syllabus.

Required Texts:

Module I:

Steel Construction Manual; American Institute of Steel Construction 13th Edition , American Institute of Steel Construction (AISC), April 2007.

Module II:

No text is required for this module.

COURSE TOPICS & STRUCTURE

Modules I and II:

Lectures: introduce structural topics; precedence and analytical / computational methods

Laboratory: lab projects provide students the opportunity to further explore the topics covered in lecture.

Design Projects: provide students the opportunity to integrate lecture and lab topics into the work being done in their elective design studios. Studio design projects will be used as a backdrop for the basis of the semester structural design project.

Project Notebooks: serve as a record for all note taking, analytical, design, and lab work. Assignments will have a due date. All work is expected to be completed and recorded in the project notebook by the assigned due date. Notebooks will be collected randomly throughout the semester. They will be graded on completeness, accuracy, and neatness.

Exams: Two exams will be given in this course. The purpose of the exams is to test the students' ability to reference and apply the material presented in lectures and labs. The exams will be open textbook (any printed textbook will be allowed.) No other material, including photocopies of the textbook, will be allowed.

NAAB Criteria:
3, 4, 7, 14, 20, 23, 24, 26, 33

ARC 441: Construction Documents

Credit Hours:	3	Offered:	Spring
Type:	Lecture, Required (Practice)	Instructor:	Jane Doe John Doh
Prerequisites:	ARC 302		

COURSE DESCRIPTION

The study of concepts, vocabulary, intent and skills necessary to understand construction documents. The focus of the course is the translation from drawing to building; an investigation of the representational contexts that influencing the act of construction. Emphasis will be placed on establishing an analogue between construction methodology and the development of precise communicative methodologies in the resolution of architectural form and space. Case studies, analytical exercises and representational investigation will establish an understanding of concepts utilized in the translation from drawing to building.

COURSE OBJECTIVES

1. Ability to make technically precise documentation.
2. Understanding of the construction and documentation methodologies.
3. Understanding of the codes, regulations and standards applicable to a given site and building design.
4. Understanding of how material, structure, and systems interface and integrate in the construction process.

COURSE REQUIREMENTS

The primary method for engaging the course objectives will be the production of a full set of construction documents for a case study site and building. The documentation/analysis will demonstrate expressed understanding of the site and constructive fabric in entirety. Utilizing USHABS Documentation/Notation systems, teams will document and represent context, solar orientation, existing aperture placement/adjacencies, thresholds, material implementation, tectonics, human scalar relationships, and occupiable space.

Each team 5 to 6 students will develop and refine a solution to the given conceptual design and program. A full set of construction documents will be produced based on the analysis and transformation proposals. The documents will be produced utilizing a uniform CSI (Construction Specifications Institute) based notation system. Organizational relationship of drawings to one another and to specifications will be investigated. The process will utilize BIM (Building Information Modeling) as a means to enhance production efficiency and allow heightened conceptual development/clarity in design.

Drawings will be submitted, critiqued and reviewed with each team at 10%, 35%, 60% and 100%. AIA documents, 2006 International Building Code, UL (Underwriters Laboratory) Manuals and CSI (Construction Specifications Institute) specifications will be engaged and discussed as pertinent issues arise in the production of the documents. The implications of material transformations to document production and code criteria will be analyzed in establishing comprehensive understanding of the displaced relationship between communication and construction.

Required Texts:

Required Text One: ***The Ethical Architect: The Dilemma of Contemporary Practice***, Spector, Tom; Princeton Architectural Press, 2001
Required Text Two. ***Working Drawing Manual***, Stitt, Fred A ; McGraw-Hill, 1998
Recommended Text One: ***Building Codes Illustrated***: Ching, Francis; Wiley and Sons, 2003

COURSE TOPICS & STRUCTURE

Local zoning codes, 2006 International Building Code. UL (Underwriters Laboratory) Manuals and CSI (Construction Specifications Institute) notation and specifications will be engaged and discussed as pertinent issues arise in the production of the documents. The implications of material transformations to document production and code criteria will be analyzed in establishing comprehensive understanding of the displaced relationship between communication and construction. Appropriate construction assemblies and details will be established for the chosen structural and enclosure systems.
Each Individual will create and maintain a Unit Value Utilization Ratio Chart. The chart will document utilization of time engaged resolving the transformation program against an established total hour budget.

ARC 451: Design Studio VII: Research

Credit Hours:	6	Offered:	Spring
Type:	Lecture/Laboratory, Required (Design)	Instructor:	Hardin + + 3 instructors
Prerequisites:	ARC 402 or permission of instructor		

COURSE DESCRIPTION
Design studio research options.

COURSE OBJECTIVES
Vary by section.

REQUIREMENTS
Student work will consist of in-class or on-site design work and extended research and design work outside of class hours. Assignments will vary from year to year and section to section. A detailed syllabus will be provided to students by each section instructor. Interim reviews and final reviews of projects are required of all students. Deadlines and formats will be given in individual studio meetings. Readings will be assigned to complement the studio projects.

COURSE TOPICS AND STRUCTURE
This course will be conducted in a studio setting in sections with varied contents and formats. Each section will be headed by a different faculty member of the School of Architecture and will offer a different set of themes and projects within the basic outline of the course description.

NAAB Criteria:
1, 2, 4

ARC 452: Design Studio VIII: Senior Project

Credit Hours:	6	Offered:	Spring
Type:	Lecture/Laboratory, Required (Design)	Instructor:	San Martin + 3 instructors
Prerequisites:	ARC 451 and final acceptance of his/her Capstone Project Proposal or permission of instructor		

COURSE DESCRIPTION

The aim of this course is to complete a Capstone Project; an architectural project that is a demonstration of his/her readiness and capacity to engage responsibly and creatively in the profession of architecture. As fifth year students in the last semester in The School of Architecture, students are expected to execute work relative to a precise theoretical and practical hypothesis or proposition, communicate intentions and results clearly, proceed according to a pertinent program, employ appropriate research methods, adhere to a coherent schedule, and formulate criteria for determining the success of the project.

COURSE OBJECTIVES:

The objective of this course is to develop student independence in defining project issues and successfully integrating all aspects of the design/research proposal in a comprehensively developed project.
Specific objectives addressed are:

1. Concept Development: Develop a clear, precise concept defining the basis of theoretical and practical solution to the project issues, including all pertinent aesthetic, site, environmental, behavioral, historic, contextual and technological determinants required pertinent to addressed during the process of design.
2. Research Method and Analysis: Apply a meaningful process of investigation and analysis integrating modeling and testing of design hypothesis
3. Research Findings: Address all critical issues in the development of the project including challenges and limitations
4. Synthesis: Demonstrate clarity and competence in communicating a synthesis of the project in fulfillment of programmatic requirements as stated in the program
5. Organization: Recognize and respect scheduled deadlines as an integral aspect of the design process
6. Professionalism: Accept responsibility of self-discipline in working independently in a creative and productive manner in a studio setting and to seek counsel and advice from the studio faculty critic and/or Capstone Advising Committee.

REQUIREMENTS

All students, either working autonomously or enrolled in a directed studio, are subject to the same requirements. Program revision and scheduled reviews identified in "course topics and structure" pertain to all students enrolled in ARC 452.
Required Readings: As elected by the student and/or as recommended by the Capstone Committee and studio critic.
Experimental/Research Materials: As needed.

COURSE TOPICS AND STRUCTURE:

Teaching format: Studio work under guidance of advisory committee and ARC 452 faculty.
1. Interim Review 1: February 13th
2. Interim Review 2: March 12th
3. Progress Evaluation: Students with significant deficiencies in the quality and/or level of performance may be eliminated from continuing the Capstone process. Under unusual circumstances a student may be given an additional chance to present his/her work progress in the following four weeks on April 9th. This will be the final decision on passing or failing the interim Capstone Reviews.
4. Final Capstone Review: May 6, 7, &8
5. Capstone Project Publication Submission: April 4

Note: The ARC 452 coordinator will be responsible for scheduling reviews. Studio Faculty Critics will be responsible for pin-up reviews as needed. However, students will be responsible for interim meetings with their Capstone Committee, and notifying their committee members of scheduled reviews. Students working independently are also required and expected to meet all scheduled reviews, presentation/communication requirements and expectations of excellence of structured studios.

NAAB Criteria:
4, 25, 26, 27, 29, 30, 31, 32, 33, 34

ARC 459/559: Ethics and Practice

Credit Hours:	2	Offered:	Spring
Type:	Lecture, Group Discussion and Analytical exercises.	Instructor:	Jane Doe John Doh
Prerequisites:	ARC 441		

COURSE DESCRIPTION

The purpose of the course is to acquaint the advanced student in the professional program in architecture with the ethical and practical issues which the architect faces in professional practice. The intent is to present these issues in such a way as to assist the graduates to understand the ethical commitment to self, client and society at large that an architectural practice demands; to assist in planning for their initial employment; and to help them learn how to prepare professional practice plans for their future careers whether traditional or otherwise.

COURSE OBJECTIVES

1. An awareness of the ethical decisions and professional issues they may confront.
2. An understanding of the importance of personal values, goal identification, legal aspects, marketing, personnel management, finance, risk management and project management that exist within the professional practice of architecture.
3. The ability to market both as an individual and as a firm offering professional services.
4. The ability to develop a career plan covering both their internship years and future professional practice (traditional and otherwise) including life-style values, income goals and needs, professional niche/role identification, marketing/public relations/sales, firm organization, personnel management, fee negotiation, financial management, project management and agreements and contracts.
5. The ability to work creatively, productively and cooperatively in team decision making.

COURSE REQUIREMENTS

Readings will be assigned from *The Architecture Students handbook of Professional Practice, Fourteenth Addition. 2009, Washington D.C.* for each class meeting. Each student will prepare a synopses in paragraph form of each reading. In addition written work includes digital and verbal presentations, participation in classroom discussions; team ethics scenarios; marketing and professional practice plans.

Required Texts:

The Architecture Student's Handbook of Professional Practice. 2009. Washington DC: The American Institute of Architects Press.

COURSE TOPICS & STRUCTURE

Firms (teams of three to four students) will be formed to create a context for decisions that individuals will confront in the formation and management of professional practice.

The class is conducted both as a lecture course where ethical and practice concepts are presented and as a workshop in which ideas are discussed and applied using group problem solving scenarios. It includes readings by the students in preparation for the lectures and panel discussions by student teams, guest professionals and the instructor. Each student team will be responsible for development of a written and graphic response to five assignments dealing with the course topics. Each student, as a first assignment, will write a short and long term goal statement which will be reassessed at the end of the semester.

NAAB Criteria:
1, 2, 8, 10, 12, 15

ARC 471s/571s: Theory and Principles of Urban Design

Credit Hours:	3	Offered:	Fall
Type:	Lecture, Required	Instructor:	Ignacio San Martin

Prerequisites: None

COURSE DESCRIPTION

The intent of the course is to put forward a debate on the dominant theories and paradigms informing city design from the renaissance to the 20th century. The course, however, is not structured chronologically but as a trilogy of critical issues. The first part of the trilogy centers on exploring current critiques on the nature of contemporary cities in the West, follow by an inquiry into the social and human purpose that Cities fulfill. The second section reviews the historical legacy from which to evaluate the evolution of city design since the renaissance with emphasis on 19th and early 20th century manifestos. The third section of the course analyze the leading theoretical urban propositions of the mid 20th century, a period imprinted by the loss of confidence in both, the Modern City as well as in the Garden City, while providing little agreement as to what should be its alternatives. The section concludes with exploring the late 20th and early 21st centuries urban design propositions including the concepts of urban livability, quality-of-life, and walkable cities within the new paradigms of bioclimatic design and sustainable regional urban development as conveyed by the indicators of global warming, the shift to renewable energy and material sources, the ecological footprint, and the urban heat island effect's measurements, among others.

COURSE OBJECTIVES

All students should be able to understand the historical and theoretical frameworks responsible for the formal expression reflected in our cities. The theoretical framework should allow the student to evaluate current urban design interventions critically. The course attempts to achieve the following:

1. Critical understandings of urban design as a design discipline, and the historical context from which ideas and design movements influence the design and planning of cities.
2. Stimulate the students' understanding of the subject via the writing of several reflective essays.
3. Subject understanding including social, technological and theoretical forces influencing each movement.
4. The structure of theory building and the role of paradigm shifts in our understanding of cities as the crucible of human civilization.

COURSE REQUIREMENTS

Three (3) written essays, single space, arial font, 10 point, 3-page maximum. Graduate students will require an additional (4th essay) as a final theoretical paper. The writing of essays is an attempt to develop the skills for critical thinking. The essays should examine the assumptions behind each author's assertions and evaluate constructive conclusions. Lengthy summaries and paraphrasing is not the intent of the essays and should be avoided. You should not write from uninformed conjectures favoring superficial speculative argument. Rather, you should develop your own opinions base on the information presented and/or via independent readings on the subject from the extensive bibliography provided. The use of proper citations, quotes and bibliographic reference is required. Late term papers are not in keeping with the professional goals of the course. A late paper will be considered under special circumstances. No submittals will result in the grade of "0."

Required Texts:

Edmund N. Bacon (1976), Design of Cities New York, Penguin
Spiro Kostof (1991), The City Shaped: Urban Patterns and Meaning through History, New York, Bulfinch

COURSE TOPICS & STRUCTURE

Section I: THE REASON FOR CITIES
1st Written Paper
Section II: HISTORICAL FOUNDATIONS OF URBAN DESIGN: the Evolution of Urban Typologies
2nd Written Paper
Section III: CONTEMPORARY THEORIES AND PRINCIPLES FOR URBAN DESIGN
3rd Written Paper

SYLLABI FOR ELECTIVE COURSES

NAAB Criteria:
11, 17, 18, 21, 24

ARC 403/503: Art and Architecture of the Islamic World: Focus on Egypt and its Territories

Credit Hours:	3	Offered:	Spring
Type:	Lecture: Elective (Arc or Open)	Instructor:	Amy Newhall

Prerequisites: none

COURSE DESCRIPTION

Students will explore some of the best known works of architecture and art in Islamic Egypt and its territories in depth. Through these objects and monuments they will become acquainted with issues surrounding the exchange of aesthetic preferences and visual forms throughout the larger Islamic, Mediterranean, Asian and African worlds. They will become familiar with the methods and modes of inquiry that have been used by scholars to understand these objects in the time and place of their making and in later eras. Crosslisted with NES 403 and ARH 403.

COURSE OBJECTIVES

1. To introduce and analyze a major work each week.
2. To complete assigned weekly readings and topic discussions.
3. To complete occasional supplementary and related readings.
4. To complete response papers to visual comparisons, textual sources and critical analyses.

COURSE REQUIREMENTS

In addition to class participation and reading preparation and presentation, students are expected to complete five response papers and a final exam. Grad students will be responsible for additional readings and will meet with the professor to discuss. They will give an oral presentation on the subject of their final research paper.

Required Texts:

Robert Hillenbrand, Islamic Art and Architecture, 1999.
Afaf Lutfi Al-Sayyid Marsot, A History of Egypt from the Arab Conquest to the Present, Cambridge University Press. 2nd edit. 2007, 2008.

COURSE TOPICS & STRUCTURE

Introduction
The Development of a Cultural Capital: Cairo
Urban History as Art/Architectural History
The Abbasid Age: The Mosque of Ibn Tulun
Assignment One
Fatimid Architecture in Cairo: al-Azhar and al-Aqmar
Shrines and Mausolea and Muqaranas
The Art of Ceramics: Fatimid Lustre
Calligraphy, Textiles and More
Ayyubid Architecture: Tomb of Imam Shafai'I, The Madrasa of Sultan Najm ad-Din Ayyub
The Mamluks: The Baptistere of St. Louis (Paris, Louvre)
Mamluk Architecture:: The Complex of Qala'un
The Complex of Sultan Hassan
Calligraphy and Mamluk Korans
The Architecture of Sultan Qaytbay
From Imperial Capital to Ottoman Province
Post-Napoleonic Conquest Cairo
Muhammad Ali
19st-20thc art and architecture and urban development
Grad Presentations
Grad Presentations and Conclusion
Final examination

NAAB Criteria:
2, 3, 15, 19, 21, 22, 23

ARC 461a/561a: Solar Utilization

Credit Hours:	3	Offered:	Spring
Type:	Lecture	Instructor:	Richard Michal, PE, LEED-AP

Prerequisites: None

COURSE DESCRIPTION
A survey course on the topics of solar utilization and its incorporation into sustainable design.

COURSE OBJECTIVES
To develop an understanding of the theory and application of solar utilization

COURSE REQUIREMENTS
Midterm and Final Examination: The primary learning vehicle is the presentation of technical information and case studies by the instructor and visiting experts in a lecture format. The students' retention and understanding of this information will be tested through the administration of two comprehensive exams, one at the half way point and one at the end of the course

Final Project: Full-term project intended to demonstrate the students understanding and ability to analyze the integration of photovoltaics, passive solar space heating, active and passive solar water heating, and daylighting into architecture design

Recommended Text:
Stein, Reynolds, Mechanical and Electrical Equipment for Buildings, Wiley 2001, tenth edition

COURSE TOPICS & STRUCTURE
Lectures and field trips will cover the following topics:
1. The physics and mechanics of the sun
2. Solar positioning in relation to the earth
3. Daily and seasonal solar variation
4. Passive solar heating systems
5. Passive solar daylighting strategies
6. Active and Passive solar water heating systems
7. Active solar photovoltaics systems and emerging technologies
8. Physical and computer modeling
9. Case studies in solar utilization

ARC 461b/561b Lightweight Construction Techniques, Spring 2001

Credit Hours: 3 Offered: Spring, every year
Type: Lecture/Workshop, Elective (Arc or Open) Instructor: Larry Medlin
Prerequisites: None

COURSE DESCRIPTION

Survey of lightweight construction techniques including pneumatics, tensile membranes, three dimensional cable nets, grid shells and flexure stiff plates.

COURSE OBJECTIVES

To provide an understanding of lightweight construction techniques, an awareness of case studies and an understanding of structural system design principles.

COURSE REQUIREMENTS

Assignments:

To obtain a firsthand understanding of basic structural principles and design study methods of tension structures,. students will be required to select and construct a model of a basic prestressed tensile membrane configuration. Form determinants and design study methods will be introduced in a Workshop. Utilizing information obtained in class lectures, workshops, individual meetings with the instructor and reference reading, students will be required to select and carry out one of the following four alternative Semester Projects:

1. A Lightweight Structural System Model, that strives to optimize performance of the structure.
2. Lightweight Construction Project Analysis/Documentation Report.
3. A Student Elective Project, that is approved by the Instructor.
4. Participation in the Fabric Architecture Student Design Challenge Competition.

Students taking the course for Graduate credit are required to do an additional Exercise – An annotated graphic Analysis/Documentation of Concepts for a Project featuring Lightweight Construction Techniques. Undergraduates may do this exercise for extra credit.

Reading:

Extensive Reference Reading and Video Lists on Lightweight Construction and Sustainability are provided for the course and future reference.

Materials:

Model and presentation materials are required for completion of the assignments.

COURSE TOPICS & STRUCTURE

Lectures/Discussions by the instructor and invited guests with interrelated Workshops on the following topics:

1. Orientation, Video -- "Stones That Fly," Media Cast, Australia (1 week)
2. General Survey of Lightweight Construction (1 week)
3. Boundary Conditions for Prestressed Tensile Membranes, Video "Soap Films and Tents," IL Stuttgart (1 week)
4. Workshop on Basic Membrane Models. Selection of Semester Project Option. (1 week)
5. Case Study Projects – Experimental Tension Structures, Ford Times Holiday Village, Mississippi River Festival, Museum of Modern Art, Los Angles Zoo and California Condor Projects (1 week)
6. Discussion of Membrane Models/Case Study Projects – Crown Center, Aspen, Pratt Institute, New Performing Environments for Symphonic Music, Sci-Expo, Portland and Tucson Performing Arts Centers, Arizona Solar Oasis. (1 week)
7. Workshop I on Semester Projects. (1 week)
8. Guest lecture on structural theory and experiments. (1 week)
9. Project Development – Vaihingen, Montreal Expo, Munich Olympics & Grand Canyon West Food Service Facility. (1 week)
10. Lattice Shells and Pneumatics, Video "Pneumatics in Nature and Technics," IL Stuttgart. (1 week)
11. Guest lecture on Fabric Tension Structures. (1 week)
12. Workshop 2 on Semester Projects. (1 week)
13. Spacenets and Recent Lightweight Construction Projects. (1 week)
14. Student Presentations/Discussion Option 2, 3, or 4 Projects. (1 week)
15. Student Presentations/Discussion - Load Testing of Option 1 models. (1 week)

NAAB Criteria:
4, 8, 12, 15, 19, 21, 23, 24, 27

Arc461d/561d: Computer Energy Analysis — **School of Architecture, CAPLA**
Fall 2009 — **The University of Arizona**

Thursdays 12:30 pm-3:15 pm, Computer Lab. Room 205 and selected lab sessions in HED lab. (3 credits)
Website Address: http://houseenergydoctor.arizona.edu

Prerequisites: Graduate standing and upper division undergraduate students

COURSE DESCRIPTION

A comprehensive course that teaches students principles of sustainable design that focuses on energy conservation and passive solar architecture, up-to-date computer energy simulation techniques and software, and 3-d modeling using SketchUp software. The course promotes students learning through field investigation of existing buildings and/or new design projects.

Teaching Format: Three teaching modules with lectures, Computer laboratory sessions and field survey of buildings

INSTRUCTOR:

Dr. Nader Chalfoun, Ph.D., LEED AP.
Contact: School of Architecture Rm. 220, 621-6751 e-mail: chalfoun@u.arizona.edu
Office Hours: Thursday 10:00-12:00 Room 220.

COURSE OBJECTIVES

This course will enable the students to:

1. Understand the major environmental systems that emphasize energy conservation and passive solar techniques including explanation of human factors, climate/microclimate and building envelope.
2. Awareness of building "energy" codes and requirements for minimum building energy performance.
3. Enable the students to acquire the necessary skills to conduct site survey techniques, the use of tools and site instruments, and data acquisition systems.
4. Ability to conduct computer energy analysis and run simulation programs and 3-d modeling as tools to analyze the energy performance of existing residential and commercial buildings and/or new energy efficient design projects approaching net-zero consumption.

NAAB PERFORMANCE CRITERIA:

The National Architectural Accrediting Board identifies 34 performance criteria it determines to "constitute the minimum requirements for meeting the demands of an internship leading to registration for practice". The criteria, which this course addresses, are indicated in the box at the upper right corner of page one of this syllabus. More information on accreditation and a list of the performance criteria can be found on NAAB's web site at: http://www.naab.org.

COURSE TOPICS AND STRUCTURE

Lectures will be presented to deliver general knowledge, to explain concepts through slides and demonstrations and to give detailed explanations of specific issues. Attendance is mandatory and will be recorded.

Module I: Six major energy and solar fundamentals

- Lectures will provide basic knowledge, review and explanation of 6 major environmental fundamentals: 1) solar geometry and astronomical relationships, 2) solar radiation measurements and physics, 3) Human thermal comfort principles, indices and design, 4) climatic analysis and bioclimatic evaluation, 5) microclimate analysis and site planning and design, and 6) building envelope heat transfer, ventilation and mechanical systems.
- Laboratory sessions focused on calculation of sun angles, solar radiation, solar obstruction charts, daylighting simulation and modeling and thermal load calculations.

Module II: Computer simulation and site survey techniques

- Computer laboratory sessions that explain site survey methods and instrumentations while using up-to-date site survey forms.
- Site visits to survey existing buildings.

Module III: Computer parametric energy analysis and optimization

- Lecture and computer lab. Sessions that explains parametric analysis and cost effective optimizations for energy efficiency and on-site photovoltaic energy generation for net-zero design. A final presentation by team students is given to home/building owners or design clients.

ASSIGNMENTS

- In class and take home skill development exercises and experiments that deal with the subject matter. Graduate students will be writing short essays on each development exercise. There will be assigned readings and writing of short reports.
- In laboratory computer exercises emphasizing performance prediction, optimization, cost analysis, final presentation and team's final report. Graduate students teamed with undergraduates in the same group will present simple payback and lifecycle cost analysis on their respective projects.

READING

There is no single source book for this course except the class handouts and the computer software manuals. Reading assignments are chosen from different books representing a wide variety of attitudes and approaches to the subject matter (see list below). Assigned books will be placed on reserve in the Architecture Library. In-class notes are greatly recommended.

1. Passive Solar Energy Book, Ed. Mazria — TJ810 .M32 1979
2. Climatic Design, Donald Watson — TJ163.5.B84 W38
3. Design with Climate, Victor Olgyay — NA2540 .044 C.3
4. Solar Control and Shading Devices, Aldar & Victor Olgyay — NA2540 .04 C.2

5.	Microclimate, the Biological Environment, Norman J. Rosenberg	QH543 .R6 1983
6.	Heating Cooling and Lighting, Robert Lechner	TH7222 .L43 1991
7.	Passive Cooling, Jeffery Cook	TH7688 .P3 1989
8.	ASHRAE Handbook of Fundamentals	TH7011 .A422 1989
9.	Solar Engineering of Thermal Processes, Duffie and Beckman	TJ810.DH 1980
10.	Solar Energy Systems Design, Harris, Miller, Thomas	TJ810.H3618, 1985
11.	Means Building Construction Cost Data	TH435B84, 1998
12.	Solar Retrofit, Adding Solar to your Home, Daniel K. Reif	TH7413 R43 1981
13.	At Home in the Sun, Norah Deakin and Linda Lindsey	TH7414 D39 1979
14.	Photovoltaics: Design and Installation Manual, Solar Energy International.	ISBN 13:978-0-86571-520-2
15.	CalPas3 Manual and Energy-10 Manual	(see instructor)

REQUIREMENTS

Students must complete all skill development exercises and one mid-term report and one final presentation and final report. Graduate students will submit additional reports and simple payback and life cycle cost estimates.

POLICIES

Attendance:

Attendance is required. In class response cards will be collected as a record of attendance.

Grading:

Each module will be assessed separately and weighted as follows:

Activity	% of final grade
Solar fundamentals skill development exercises (1)	03%
Energy Conservation and passive solar simulation exercises (7)	21%
Mid-term (Basecase) Report	26%
Final Exam (Finalcase report 30% & reviews 15%)	45%
Attendance	5%
Total	100%

Final grades will be based on the following:

Grade	points
A	90-100
B	80-89
C	70-79
D	60-69
F	59 or below

Late Work

Late work will not be accepted

Incomplete Work

Incomplete work will not be accepted without instructor's prior approval and written agreement as to revised due dates and grading policy.

Make up Exams

No absences from the exam will be permitted except those of an extreme nature and then only if the instructor is notified BEFORE the scheduled exam. No special make-up exams will be given.

STATEMENTS

Subject to Change

With the exception of the grade and attendance policies, parts of this syllabus are subject to change with advance notice, as deemed appropriate by the instructor.

Handicapped Accessibility

Every effort will be made to accommodate students with diagnosed disabilities. Please contact the instructor to initiate a discussion about how we can best help you succeed in this class.

Retention of Work

The School of Architecture has the right to retain any student project whether it be for display, accreditation, documentation or any other educational or legal purpose.

Required Supplies:

1. Two 3-ring notebooks white with front cover insert and section dividers. One for keeping all handouts and exercises, and one for submission of final report
2. Media storage materials such as zip disks, CDs or others. A digital copy of your final report is required
3. Scientific calculator

NAAB Criteria:
4, 8, 12, 15, 19, 21, 23, 24, 27

SCHOOL OF ARCHITECTURE **UNIVERSITY OF ARIZONA** **TUCSON, AZ**

Arc461e/561e Sustainable Design and the LEED Initiative (3cu) **Prof. Nader Chalfoun,Ph.D.**

Spring 2009 **621-6751 • chalfoun@u.arizona.edu**

Thursday 3:30pm-6:15pm, Room Arch103 and Computer Lab. as necessary, 3 credits. **Website Address: hed.arizona.edu**

Prerequisites: Although not mandatory, Arc461d/561d (fall) is highly recommended

COURSE DESCRIPTION

A series of lectures and computer laboratory sessions that emphasize the subject of ***SUSTAINABILITY*** by focusing on Green Building Design, Energy Efficient and Passive Solar Design. Description of the United States Green Building Council "Leadership in Energy and Environmental Design" (LEED©) process is presented and studied for two main reasons: 1) to allow students to achieve high performance and energy efficient designs in a methodic way and 2) to help prepare the students to take the exam and become LEED© Accredited Professional.

The design process of Green and Energy Efficient buildings will be assessed through the use of advanced computer energy simulation programs. The Department of Energy's eQUEST computer program is introduced and explained as a modeling tool. Also, ComCheck software is used to achieve ASHRAE 90.1, 2004 compliance. Students will pre-select different mixed-use or commercial projects of their choice. Undergraduate students may investigate their capstone design studio projects and graduate students may evaluate their thesis design/research projects. In addition, students will conclude their design by attempting to integrate as much as possible the LEED© design recommendations to accumulate enough LEED© points to certify their design. According to the LEED© guidelines, 26-32 points will certify the building, 33-38 will achieve "Silver" rating, 39-51 points will reach "Gold" rating and 52-69 points will earn the project the highest "Platinum" rating.

This course is best comprehended when preceded by Levels I and II of the "House Energy Doctor" Program."

Teaching Format: The class comprises of 3 teaching modules with lectures, Computer laboratory sessions and field trip(s).

INSTRUCTOR:

Dr. Nader Chalfoun

Contact: School of Architecture Rm. 220, 621-6740, e-mail: chalfoun@u.arizona.edu

Office Hours: Tuesdays and Thursdays 11:00-12:00 @ Room 220

COURSE OBJECTIVES

This course will enable the students to:

1. Be aware of the principles and theories that deal with environmental context and the architect's responsibility with respect to global environmental issues, including sustainability, relevant codes, regulations and standards and their application to physical and environmental systems.
2. Understanding and review of major environmental systems that emphasize energy conservation and passive solar techniques including investigation of human factors, climate/microclimate and building envelop.
3. Enable the students to acquire the necessary skills to conduct site survey methods, use of tools and instruments and to run computer energy simulation programs as tools to analyze the energy performance of existing residential and commercial buildings and/or new design projects.

NAAB PERFORMANCE CRITERIA:

The National Architectural Accrediting Board identifies 37 performance criteria it determines to "constitute the minimum requirements for meeting the demands of an internship leading to registration for practice". The criteria, which this course addresses, are indicated in the box at the upper right corner of page one of this syllabus. More information on accreditation and a list of the performance criteria can be found on NAAB's web site at: http://www.naab.org.

COURSE TOPICS AND STRUCTURE

This semester ARC461e/561e will be divided into three modules. The first module introduces the LEED© program and process as a guiding force towards the design of Green and Energy Efficient buildings. This includes review of the 5 major criteria on 1) Sustainable Sites, 2) Water Efficiency, 3) Energy and Atmosphere, 4) Materials and Resources, and 5) Indoor Environmental Quality. This module takes a seminar form where students read, present and discuss each of the 5 major sections. The second module engages the students with the design process as well as learning how to use 2 state-of-the-art computer energy compliance and simulation software. These are ComCheck and eQUEST respectively. Students will select a project, and create a basecase design that complies with ASHRAE 90.1, 2004. The third module allows student to further develop the design based on the LEED recommendation and using advanced computer simulation techniques to accumulate credit points towards ranking of their design.

ASSIGNMENTS

Module I:	Take home 6 skill development exercises that deal with the subject matter. Students will be writing short essays and creating presentation on each criteria and will discuss and present on the next class. In-class exams will be administered for each of the 5 criteria
Module II:	In laboratory computer exercises emphasizing performance prediction and code compliance using ComCheck and eQUEST computer software.
Module III:	Parametric analysis for performance optimization, cost analysis, and LEED© documentation with special submittal forms used for ranking the design. A final presentation and a final report are required.

READING

There is no single source book for this course except the class handouts, electronic postings on the College server and the computer software manuals. Reading assignments are chosen from a variety of book chapters or scientific publications related to the subject matter (see list below). If possible, assigned books will be placed on reserve in the library. In-class notes are greatly recommended in support of the class handouts that provide the students with essential materials.

1. Passive Solar Energy Book, Ed. Mazria — TJ810 .M32 1979
2. Climatic Design, Donald Watson — TJ163.5.B84 W38
3. Design with Climate, Victor Olgyay — NA2540 .044 C.3
4. Solar Control and Shading Devices, Aldar & Victor Olgyay — NA2540 .04 C.2
5. Microclimate, the Biological Environment, Norman J. Rosenberg — QH543 .R6 1983
6. Heating Cooling and Lighting, Robert Lechner, 2nd Edition — TH7222 .L43 1991
7. Passive Cooling, Jeffery Cook — TH7688 .P3 1989
8. ASHRAE Handbook of Fundamentals — TH7011 .A422 1989
9. ASHRAE GreenGuide: The Design, Construction, and Operation of Sustainable Buildings, ASHRAE, 2006
10. Green Buildings A to Z: Understanding the language of Green Building, Jerry Yudelson, 2007
11. Means Building Construction Cost Data — TH435B84, 1998
12. LEED©2.2, New Construction Resource Paqckage — (Sections posted electronically)
13. ASHRAE 90.1, 2004 Standards (Appendix G) — (Sections posted electronically)
14. eQUEST and ComCheck Manuals — (Visit respective web sites or see instructor)

REQUIREMENTS

Students must complete all skill development exercises and exams and one mid-term report and one final presentation and final report. Graduate students will submit additional reports and simple payback and life cycle cost estimates.

POLICIES

Attendance:

Attendance is required. In class response cards will be collected as a record of attendance.

Grading:

Each module will be assessed separately and weighted as follows:

Activity	% of final grade
Reading and presenting LEED materials exercises (5)	25%
Research Reports (2)	10%
Mid-term (Basecase) Report	15%
Final (report 30% & reviews 15%)	45%
Attendance	5%
Total	100%

Final grades will be based on the following:

Grade	points
A	90-100
B	80-89
C	70-79
D	60-69
F	59 or below

Late Work/Incomplete Work

Late work will not be accepted. Incomplete work will not be accepted without instructor's prior approval and written agreement as to revised due dates and grading policy.

Make up Exams

No absences from the exam will be permitted except those of an extreme nature and then only if the instructor is notified BEFORE the scheduled exam. No special make-up exams will be given.

STATEMENTS

Subject to Change

With the exception of the grade and attendance policies, parts of this syllabus are subject to change with advance notice, as deemed appropriate by the instructor.

Handicapped Accessibility

Every effort will be made to accommodate students with diagnosed disabilities. Please contact the instructor to initiate a discussion about how we can best help you succeed in this class.

Retention of Work

The School of Architecture has the right to retain any student project whether it be for display, accreditation, documentation or any other educational or legal purpose.

Required Supplies:

1. Personal laptops are highly recommended
2. 3-ring notebooks with front cover insert and section dividers for keeping all handouts, exercises and others.
3. Media storage materials such as memory sticks, cds or others. A digital copy of your final report is required.
4. Scientific calculator

NAAB Criteria:
4, 11, 18, 24, 26

ARC 461f/561f: The Nature of Structure

Credit Hours:	3	Offered:	Fall
Type:	Seminar/Laboratory, Elective	Instructor:	Christopher Trumble
Prerequisites:	Third year status or higher		

COURSE DESCRIPTION

Through analytical and empirical research this seminar course will investigate structural concepts and the characteristics of force, form, material and connection. Natural precedents will be examined in the context of their generative conditions; structural concepts will be distilled, abstracted, developed and altered through the construction of physical models and drawings.

COURSE OBJECTIVES

1. Understand nature as a structural paradigm
2. Utilize analytical and empirical methods for the understanding and design of structure
3. Develop a comprehensive structural concept of force, form, material and connection

COURSE REQUIREMENTS

Students are required to successfully complete the projects outlined in this syllabus; specific requirements are further defined in separate assignment statements issued throughout the semester. Students are required to participate in group discussions regarding the development of projects by fellow students. Students are responsible for all personal expenses, including that required for physical research and documentation.

RECOMMENDED READINGS:

On Growth and Form by D'arcy Thompson
Invention and Evolution by Michael French
Additional readings will be specific to individual student research, determined jointly by instructor and student.

COURSE TOPICS & STRUCTURE

Lectures will introduce theoretical goals, projects and corresponding precedent studies. Discussion sessions will be used for student presentations and group discussions. Laboratory sessions will be used for the design, construction, testing and analysis of physical models.

Projects:
General: Students will be required to propose a subject of study and to utilize performance based modeling techniques and abstract drawings to investigate and develop the various projects. Students will work in teams of two.

1. Precedent: (3 weeks) Natural entity to be investigated in terms of force, form, material and connection.
   Proposition: Select a natural entity for investigation in terms of structural concepts and principles
   Means: research of scientific literature and hands-on investigation of subject: cutting, probing and manipulation of subject.
   Product: presentation of images, drawings, diagrams, samples
2. Abstraction: (3 weeks)
   Proposition: Develop physical model of natural precedent embodying conditions of force, form, material and connection.
   Means: construction of physical models, investigation through drawing and informal testing/manipulation of model
   Product: presentation of physical model, drawings and conclusions
3. Element: (4 weeks)
   Proposition: Refine *abstraction* as a self-contained structural *element*. Develop physical probes with specific strategies towards force, form, material and connection. Determine strengths and weaknesses of *element* through measurable testing about specific criteria (compression, tension, bending, torsion etc.)
   Means: Physical probes, drawings and formal testing
   Product: presentation of physical probes, drawings and conclusions
4. Alteration: (4 weeks)
   Proposition: Change primary material of *element* and re-strategize conditions of force, form and connection. *To make a difference anywhere is to make a difference everywhere –William James*
   Means: Physical probes, drawings and testing
   Product: presentation of physical probes, drawings and conclusions

ARC 461i/561i Materials: Properties and Tests

Credit Hours:	3	Offered:	Fall
Type:	Seminar/Laboratory, Required	Instructor:	Álvaro Malo

COURSE DESCRIPTION

A heuristic learning methodology would allow to bridge the gap between materials and ideas, between the concrete and the abstract, by approaching these two ends as paradoxical coincidences: the "idea of materials" and the "material of ideas", traversing that space~time oscillation as work to be defined in terms of *longitude* and *latitude* — as proposed in Spinoza's *Ethics* In this schema, longitude would be the set of mechanical relations of extension and orientation in space, and latitude would be the set of motive forces and phenomenal intensities in time. The course will require effective interaction with the research and development segments of the materials manufacturing industries, and interdisciplinary collaboration with the larger University of Arizona research and design community, the latter more intentionally with Materials Science & Engineering, Civil Engineering & Mechanics, Cognitive Sciences and other pertinent disciplines.

COURSE OBJECTIVES

1. *Understanding of* physical properties of materials: mechanical, optical, acoustical, thermal, electromagnetic, etc.
2. *Understanding* of aesthetic (sensorial-perceptive) properties of materials: visual, auditory, haptic, kinesthetic, ergonomic etc.
3. *Ability to* set up laboratory tests and experiments that elucidate theoretical and practical applications of materials aimed at developing an inventive model of design practice with the capacity for new aesthetic and performative qualities responsive to emergent human needs and environmental responsibilities.

COURSE REQUIREMENTS

Probes, measured laboratory tests of physical properties of materials. **Architectonic artifact**, application of probe results in the design of an architectonic artifact, including measured shop drawings, materials specifications, and a physical prototype. **Scholarly paper**, written synthesis of research and development protocol — probes and artifacts — including abstract, full text, drawings and photographs following the submission format of pertinent journals, i.e., Journal of Architectural Education, Nature Materials, etc. Proof of submission required. **PDF files**, for archival storage.

Recommended Texts and Links:

Addington, M. & Schodek, D., *Smart Materials and Technologies*. Amsterdam: Elsevier, 2003
Ashby, M., *Materials and Design: The Art and Science of Material Selection*. Oxford: Butterworth-Heinemann, 2002
Manzini, E., *The material of invention*. Cambridge: MIT Press, 1989
Minnaert, M.G., *Light and color in the outdoors*. New York: Springer-Verlag, 1993
McQuaid, M., *Shigeru Ban*. London: Phaidon, 2003
Fernandez, J., *Material Architecture*. Amsterdam: Elsevier, 2006
Hegger, M. et al (2006) *Construction Materials Manual*. Basel: Birkhäuser.
Schodek, D. et al, *Digital Design and Manufacturing*. New York: John Wiley & Sons, 2004
Smith, C.S., *Materials*. San Francisco: A Scientific American Book/W.H. Freeman, 1967

http://www-materials.eng.cam.ac.uk/mpsite/
http://www.materialconnexion.com/PA1.asp
http://www.transstudio.com/
http://www.nature.com/nmat/journal/v6/n8/index.html

COURSE TOPICS & STRUCTURE

The seminar/laboratory will be organized in three modules: **Module1**: materials: classifications, physical properties, fabrication processes, and phenomenal/sensorial properties. **Module 2**: laboratory tests for empirical verification of the properties of materials — probes. **Module 3**: proposed applications and selection of materials and properties toward design and production of architectonic functional components — artifacts — preferably at full size. The 3rd module must consider applications of materials and technologies that may not be currently part of the building design and construction processes but have a realistic potential to transform the ecosophical* prospect of architecture*.

*Naess, A. (1989) "From Ecology to Ecosophy", *Ecology, community and lifestyle*. Cambridge: Cambridge U. Press.

NAAB Criteria:
1, 2, 4, 8, 9, 10, 12, 13

ARC 471B-571B Space: A Socio-Cultural View

Credit Hours:	3	Offered:	Fall
Type:	Seminar/Lecture	Instructor:	Dennis Doxtater

Prerequisites: permission of department

COURSE DESCRIPTION

Explores theoretical distinctions between processes of social and symbolic space, i.e. sacred ritual, rhetorical territoriality and local ritual. Extrinsic, expressive forms in architecture and landscape serve social ends and are distinguished from more intrinsic aesthetics.

COURSE OBJECTIVES

1. Awareness of how humans use space to influence social organization.
2. Awareness of how space and social organization varies with culture.
3. Awareness of the different contributions of perceptual symbolic objects and cognitive ritual space.
4. Awareness of different effects of architecture and landscape architecture in social space.
5. Ability to access and organize social science literature.
6. Ability to create a scholarly evaluation of some aspect of social space.

COURSE REQUIREMENTS

Outside reading and class participation (10%)
Two quizzes (30%)
Term paper/project (60%)
Graduate students are graded separately from upper level undergraduate students.

Required Texts:
Varied articles: All required reading will be available on the University of Arizona's electronic reserve service.

COURSE TOPICS

The course follows a consistent theoretical structure as briefly outlined in the description above. Each offering advertises a different subtitle. In Fall 2006 the focus was on Native American Landscape Architecture and Architecture. For Fall 2008 the course will link together with two other courses from Astronomy and Applied Anthropology as a "mini-minor" for graduate students. The subtitle will be: Sacred Ritual Process in the Context of Landscape, Architecture and Celestial Phenomena.

NAAB Criteria:
1, 4, 10, 11

ARC 471f: Introduction to the Conservation of Cultural Resources

Credit Hours:	3	Offered:	Fall
Type:	Lecture Elective	Instructor:	R. Brooks Jeffery
Prerequisites:			

COURSE DESCRIPTION

This course is an overview of the interdisciplinary issues related to the conservation of cultural resources in general and the built environment specifically. It will introduce the student to the history of the preservation movement, federal, state and local preservation programs, regulatory instruments, documentation and interpretation processes, intervention techniques and current philosophical issues ranging from local to international contexts. The course will include guest speakers, field trips, and graduate student presentations. The course will have regular readings and follows a seminar format where everyone participates in discussion.

COURSE OBJECTIVES

The purpose of this course is to expose the student to the theory, principles and resources of preservation. The course has three objectives:

1. To introduce the student to the terms, concepts and philosophical foundations of preservation;
2. To introduce the student to the process, rather than the product, of preservation;
3. To address current issues of why we preserve cultural resources and for whom. Success in this course is based on the student's ability to synthesize a broad array of information, interpret its significance relative to the student's own experiences and demonstrate competency through a variety of formats, including classroom discussion, examinations and writing assignments.

COURSE REQUIREMENTS

Required Texts:

Tyler, Norman. Historic Preservation : An Introduction to its History, Principles, and Practice New York ; London : W.W. Norton & Co., c2000.

Additional readings located on e-reserves.

COURSE TOPICS & STRUCTURE

Knowledge transfer occurs in a variety of formats. In addition to lectures and discussions, the content of this course will be disseminated through guest speakers and field trips. The purpose of guest speakers is to bring "real world" experiences into the classroom to discuss specific preservation issues. These professionals will also discuss career possibilities in preservation based on their discipline and affiliation. Students are also required to participate in three Saturday morning field trips from 9am to 12 noon. The purpose of the field trips is to expose the students to the tangible context of preservation to reinforce the issues discussed in the classroom. **Attendance on field trips is mandatory** and students will be required to submit a two-page (minimum) essay addressing the critical issues introduced by the tours.

Students will be responsible for completing three types of assignments:

Reading and Discussion. Students will be responsible for the assigned readings and to participate in a seminar discussion about their contents. Contribution to class discussion is a significant portion of your overall course grade. Students will be evaluated based on attendance, expressed knowledge of the required readings and discussion activity.

Tour Essays. Students will be required to submit a two- to five-page (minimum - maximum), single-spaced essay due on the Wednesday following the tour. The intent of these papers is to provide a vehicle to reflect on the critical issues addressed on the tours. Focus questions introducing these critical issues will be distributed prior to the tour.

Research Paper. Each student will be required to write a minimum 2500 word research paper on an issue related to preservation. The paper should include: 1). An introductory definition of the issues related to your topic; 2). Description of the general principles, ideas, and solutions that address these issues; 3). Three case reviews (including at least one local) exemplifying the principles outlined above; 4). A conclusion, representing your interpretation of the issues and their significance based on your newly informed awareness; 5). List of references cited in your research; and 6). a 100-word maximum abstract. Accompanying graphics (images, diagrams, plans, etc.) should accompany the case study analysis to illustrate your text. Students will be evaluated on the thoroughness of the research, organization of ideas and information, as well as the clarity of its presentation. The case reviews should be critical evaluations of projects - not just descriptions - illustrating the issues you've defined in the introduction. The research paper should be written in a scholarly manner, representing a balanced view and distinguishing your thoughts from those of others through appropriate citation methods.

NAAB Criteria:
1, 2, 4, 12, 13, 27

ARC 471g/571g: History V: Museums: History, Theory, Design

Credit Hours:	3	Offered:	Fall or Spring
Type:	Seminar	Instructor:	Laura Hollengreen

Prerequisites: Successful completion of ARC 231 and ARC 232 or permission of the instructor.

COURSE DESCRIPTION

Investigates the architecture of museums and the installation of exhibitions, past and present, as manifestations of contemporary understanding of the construction and content of knowledge, the public mission of cultural and scientific institutions, and the framing of visitors' experience.

COURSE OBJECTIVES

1. To provide an introduction to current scholarly and critical discourse on visual and material culture.
2. To equip students to analyze the role of architecture in the impact of large public institutions in the cultural sphere.
3. To expose students to the variety of collections and exhibitions which museums house and to the diversity of museum visitor needs and expectations.
4. To establish effective research skills through exposure to a variety of research resources and methodologies.
5. To foster effective written and verbal communication through exercises in critical reading, framing a topic for research, and constructing a persuasive argument.

COURSE REQUIREMENTS

In addition to mandatory attendance in the seminar and regular participation in discussion, the student is expected to complete all assigned readings, weekly reading response essays, and a research paper or project.

Required Texts:

Assigned weekly readings on electronic reserve at http://eres.library.arizona.edu/eres/default.aspx
Online study images via the Imagen database at http://www.imagen.arizona.edu

The better known authors read include: Michael Ames, Michael Baxandall, Tony Bennett, James Clifford, Carol Duncan, Umberto Eco, Michel Foucault, E.H. Gombrich, Nelson Goodman, Stephen Greenblatt, Rosalind Krauss, George MacDonald, Andrew McClellan, and Carla Yanni.

COURSE TOPICS & STRUCTURE

Over the course of the semester, the class will seek to develop its own rigorous definition of the museum as a critical gateway to knowledge, coming to grips with the role the architect has played and can play in enhancing the museum as 1) housing and publicity for artifacts, 2) engine for public education, 3) barometer of scientific progress and cultural change, and 4) urban/civic generator. Specific weeks will focus on the following topics:

Museum Functions: What Is a Museum? What Does It Do?
The History of Collecting and the Origins of Museums
Museum Development in the Nineteenth Century
Patterns of Visitor Behavior: Accommodating Differences in Education, Experience, and Engagement
"Scopic Regimes" or "The Exhibitionary Complex"
Strategies of Display
The Museum and New Media
The Museum in the City
Ideologies of the Art Museum
The Architecture of Science
The Spectacle of Ethnography and Revisionism in the Anthropological Museum

NAAB Criteria:
1, 2, 4, 12, 13

ARC 471i/571i: History V: Urban Public Space: History, Theory, Design

Credit Hours:	3	Offered:	Fall or Spring
Type:	Seminar	Instructor:	Laura Hollengreen

Prerequisites: Successful completion of ARC 231 and ARC 232 or permission of the instructor.

COURSE DESCRIPTION

Investigates the history, theory, and design of the modern and contemporary city, along with selected pre-modern examples, in terms of the formal and social construction of space, civic identity, communal memory, political discourse, and socio-economic opportunity.

COURSE OBJECTIVES

1. To foster understanding of the major theoretical perspectives on the city during the twentieth century, and especially since the 1960s.
2. To explore the problems posed by theoreticians and the diversity of historical solutions to them.
3. To encourage critical thinking about the relationship between architecture and urban public space.
4. To determine bases for the effective design of urban public space today.
5. To establish effective research skills through exposure to a variety of research resources and methodologies.
6. To foster effective written and verbal communication through exercises in critical reading, framing a topic for research, and constructing a persuasive argument.

COURSE REQUIREMENTS

In addition to mandatory attendance in the seminar and regular participation in discussion, the student is expected to complete all assigned readings, two take-home examinations, and a research paper or project.

Required Texts:

Assigned weekly readings on electronic reserve at http://eres.library.arizona.edu/eres/default.aspx
Online study images via the Imagen database at http://www.imagen.arizona.edu

The better known authors read include: Iain Borden, M. Christine Boyer, Michel de Certeau, Mike Davis, Jürgen Habermas, Thomas Hall, Peter Hall, Jonathan Hale, David Harvey, Le Corbusier, Rem Koolhaas, Henri Lefebvre, Kevin Lynch, William MacDonald, William J. Mitchell, Colin Rowe, Edward Soja, and Paul Virilio.

COURSE TOPICS & STRUCTURE

While the course does examine some critical examples of cities from the pre-modern past and from non-Western cultures, it is not designed as an overview or survey of urban form throughout history. Instead, its focus is on cities from the mid-nineteenth century to the present and its structure is thematic, with coverage of the following topics:

Problems and Potential of the Present
The Public Sphere and Citizen Ethics
Social Generators of Public Space
Formal Generators of Public Space
Creating a Sense of Place
Individuals and Communities, Local and Global
Urban Topographies and Holistic Design: Social Control and Social Empowerment
Urban Armatures and Streets as Public Space
Patterns of Perception: Spectacle and Flânerie
Urbanism and New Technologies
Asian Cities
Contemporary Manifestoes
Urban Representation: The City in Word and Image

NAAB Criteria:
1, 2, 4, 12, 13

ARC 471j/571j: History V: The Impact of World War One on Architecture and the Arts

Credit Hours:	3	Offered:	Fall or Spring
Type:	Seminar	Instructor:	Laura Hollengreen

Prerequisites: Successful completion of ARC 332 or permission of the instructor.

COURSE DESCRIPTION

Investigates the architecture and art of the decades surrounding World War I as manifestations of a fundamental rupture in *mentalité*.

COURSE OBJECTIVES

1. To foster understanding of a watershed moment in the formulation of modern forms and philosophies of architecture and art.
2. To enhance awareness of the rich variety of artistic documentation of modern experience, as well as of the linkages between two- and three-dimensional media.
3. To encourage critical thinking about the relationship of architecture and art to larger cultural, political, and socio-economic phenomena.
4. To question the relationship between modernism and postmodernism and to determine bases for the continuing validity of modernist goals and methods in architecture.
5. To establish effective research skills through exposure to a variety of research resources and methodologies.
6. To foster effective written and verbal communication through exercises in critical reading, framing a topic for research, and constructing a persuasive argument.

COURSE REQUIREMENTS

In addition to mandatory attendance in the seminar and regular participation in discussion, the student is expected to complete all assigned readings, two take-home examinations, and a research paper or project.

Required Texts:

Modris Eksteins, *Rites of Spring: The Great War and the Birth of the Modern Age* (Boston: Houghton Mifflin, 1989).
Ulrich Conrads, ed., *Programs and Manifestoes on 20th-Century Architecture* (Cambridge: MIT Press, 1975).
Vassiliki Kolocotroni, Jane Goldman, and Olga Taxidou, eds., *Modernism: An Anthology of Sources and Documents* (Chicago and London: University of Chicago Press, 1998).
Assigned weekly readings on electronic reserve at http://eres.library.arizona.edu/eres/default.aspx
Online study images via the Imagen database at http://www.imagen.arizona.edu

The better known authors read include: Theodor W. Adorno, Walter Benjamin, Marshall Berman, André Breton, T.J. Clark, Beatriz Colomina, William J.R. Curtis, T.S. Eliot, Kenneth Frampton, Sigmund Freud, Paul Fussell, Walter Gropius, Hilde Heynen, Martin Jay, Rosalind Krauss, Le Corbusier, Adolf Loos, Filippo Tommaso Marinetti, Karl Marx, Friedrich Nietzsche, Carl Schorske, Georg Simmel, Anthony Vidler, and Wilhelm Worringer.

COURSE TOPICS & STRUCTURE

The course topics are divided into four sections: 1) an introductory section establishing the historical and cultural context of the late nineteenth and early twentieth centuries; 2) a section on World War One in direct experience; 3) a section on changes effected or enhanced by the war--changes in the conditions of life, in the forms of mass society, and in utopian visions of release from violence, nationalism, and bourgeois patterns of production and consumption; and 4) a concluding section offering architectural summations of the interwar period from the left and right of the political spectrum. Specific sessions are devoted to such topics as:

Defining Modernity
Urbanism in the Later Nineteenth Century
Walking New City Streets: The Flâneur
The Avant-Garde in the Late 19th & Early 20th Centuries
Fin-de-Siècle Decadence: Vienna and Psychoanalysis
The Emergence of New Media: Photography and Film
The Facts of War
The Psychology of War
War Explored in Architecture, Art, and Literature
Nietzsche and Futurism's Fetishization of War
Abstraction and Representation
Rationality and Irrationality
Universality and Particularity
Utopian Revisions of Modern Life in the Post-War Period
Blood/Culture/Nation: Fascism in Architecture and Urbanism

ARC 481d: Architectural Photography

Credit Hours:	3	Offered:	Spring
Type:	Lecture/Laboratory, Elective	Instructor:	Richard G. Brittain
Prerequisites:	ARC 301 or permission of instructor		

COURSE DESCRIPTION

Theory and practical techniques for the varied uses of photography in the architectural field. Emphasis on the "daily use" of 35mm equipment and color slide films for self expression, documentation (exteriors/interiors), copywork, scale models and simulation. Introductory hands-on exploration of large format photography with Polaroid film. A better understanding of light and techniques that produce successful 35mm slides can be applied to significantly improve digital photography.

COURSE OBJECTIVES

1. Understanding the theory and practice of architectural photography.
2. Ability to comfortably use 35mm and digital camera systems for various professional architectural purposes.
3. Ability to apply a scientific method of test exposures and notation to determine the proper exposure in various photographic situations and clearly communicate that process to the instructor and peers.
4. Ability to communicate the essence of an architectural project through written, verbal and photographic media.
5. Ability to utilize photographic media as an efficient communication tool for design concepts, site analysis, buildings, details, scale models and studio copy work.
6. An understanding of techniques for photo drawing/drafting, aerial site analysis and rectified scaleable documentation of historic structures.
7. Ability to use time exposures in low illumination situations and balance daylight with artificial lighting when shooting outdoors or indoors.
8. Ability to use 4x5 large format photography.
9. Understanding when to personally do a photographic project or hire a professional photographer.
10. Ability to express oneself through photography and increase ones design skills by seeing architecture as a photographer and composing photographs to create an exciting and balanced image.

COURSE REQUIREMENTS

Student work will consist of in-class exercises and homework assignments. Each assignment consists of various parts that focus upon specific applications and techniques. At least one of these parts of each assignment submittal includes a set of slides that must be projected and verbally described to the class for discussion of concepts and techniques so all students are learning from the instructor and their peers. This develops and refines their photographic and communication skills. During weeks 8, 9, 10 lectures will be combined with hands-on work in the photographic studios. The instructor and students will work together to accomplish the various assignment parts. During weeks 11, 12 lectures will be combined with hands-on use of (3) 4X5 large format cameras and Polaroid film during field trip exercises. This approach enables the instructor and students to photograph architecture manipulating the camera controls and utilizing different contrast filters. The Polaroid film provides an instant resulting image which can be discussed then refined through readjusting the camera controls and changing filtration. This procedure can be repeated until a satisfactory image is obtained. Field trips will be completed during class time unless prior arrangements have been made.

Required Text/Equipment:

Richard G. Brittain, Class Notes, 1991-2008 (updated annually)
Manual 35mm camera, light meter, locking cable release, Kodak gray card and tripod

COURSE TOPICS & STRUCTURE

Lectures and demonstrations will provide the theoretical and technical background for applying and utilizing photography for architectural purposes. Students will then demonstrate their understanding of the theory and techniques utilizing their specific equipment to complete each assigned exercise. Students will be encouraged to familiarize themselves with their own equipment through reading their instruction manuals, discussions with peer mentors that have similar equipment and more experience, and by discussions with the instructor prior to or after lectures and during office hours. The first five weeks provides the basic theory and practice of photography emphasizing the proper use of cameras, lenses, light meters, lighting, filters and notation. Subsequent classes focus upon photographic applications including building interiors/exteriors, studio portfolio/presentation documentation, large format hands-on field exercises, an introduction to black and white darkroom work and special applications including aerial site photography, photo drafting and rectified, scaleable historic building documentation.

NAAB Criteria:
3,5,8,10,13

ARC 481e Architecture in the Mediterranean

Credit Hours:	3	Offered:	Summer
Type:	Lecture/Laboratory, Elective	Instructor:	Mary Hardin

Prerequisites: Approval of Orvieto Program Director

COURSE DESCRIPTION:
Special projects in architecture with the purpose of developing skills of observation, description and analysis of architectural principles through the media of freehand analytical drawings. The architecture of the city, the building and its individual components will be studied with particular attention given to inter-relationships between space, form and function.

COURSE OBJECTIVES:
This course will enable students to:

1. Develop an understanding of architecture, place, and use of space in other cultures
2. Develop methods for comparing and contrasting differing architectural forms, expressions, and structural systems
3. Work analytically through various measuring, observation and drawing methods

COURSE REQUIREMENTS:
Class preparation: Assigned readings from the course text (Brunelleschi's Dome by Ross King and course reader) on topics from literature, art, history, and architecture, to be read prior to and during the travel period.

Assignments and presentations: Students are required to complete and submit daily drawings during class meetings and in between class meetings. Four extensive drawings assignments are included: two relating to the history and urban form of a particular city or town (Orvieto and one other), and two relating to a specific architectural example (Firenze Duomo and one other).

All drawing assignments should be submitted in final form to the CALA main office by August 1, 2008.

COURSE TOPICS AND STRUCTURE:
The course topics include: the study of urban spaces such as piazzas, connecting routes through cities, and architectural topics ranging from the nature of space to the temporal nature of living cities; from measures such as scale and proportion to vernacular traditions and continual innovation; the place of nature in the city to an appreciation for color, texture and materiality.

The instructor meets with students on Mondays to introduce course topics and review assignments, and on Tuesdays and Thursdays to draw in the field. Wednesdays and Fridays are typically scheduled for field trips beyond Orvieto.

NAAB Criteria:
1, 2, 4, 7, 12

ARC 497a: Research Methods: Perspectives on Inquiry

Credit Hours:	3	Offered:	Fall
Type:	Seminar Elective	Instructor:	R. Brooks Jeffery
Prerequisites:			

COURSE DESCRIPTION

This seminar course will provide students a survey of research methods used in the design disciplines. The course will also expose students to the rigor of intensive reading, writing and discussion whose product will provide a solid foundation for subsequent research in the Masters program in Architecture and Landscape Architecture. The course will have regular readings and follows a seminar format where everyone participates in discussion. Periodic written assignments will complement the readings with practical application of research skills.

COURSE OBJECTIVES

1. To introduce students to the theoretical issues of research and the methods by which research is conducted; and
2. To reinforce the mechanics and pragmatic requirements to implement and communicate research.

Success in this course is based on the student's ability to synthesize a broad array of information, interpret its significance relative to the student's own experiences and demonstrate competency through a variety of formats, including classroom discussion, examinations and writing assignments.

COURSE REQUIREMENTS

Required Texts:

Leedy, Paul D and Jeanne Ellis Ormrod. Practical Research: Planning and Design. Eighth Edition. Upper Saddle River (NJ): Pearson Merrill Prentice-Hall, Inc., 2005.

Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. Sixth Edition. Chicago: University of Chicago Press, 2007.

Graduate College, University of Arizona. Manual for Electronic Theses and Dissertations. Available online at: http://grad.arizona.edu/current-students/manuals

Fine Arts Library website for Research Methods (primarily Architecture-focused), http://www.library.arizona.edu/help/tutorials/courses/arc/497a/index.html

Chicago Manual of Style, http://www.chicagomanualofstyle.org/home.html and particularly the "Chicago-Style Citation Quick Guide".

Additional readings located on e-reserves.

COURSE TOPICS & STRUCTURE

Students completing this course will be able to:

1. Define a research problem, a hypothesis for its solution, and a research plan toward its implementation;
2. Identify resources necessary to support the research (informational, financial, personnel);
3. Conduct research using methods appropriate to the individual problem;
4. Interpret the results of research according to the standards necessary for thesis and journal publication.

There will be two types of assignments: daily and periodic. Daily assignments will require the student to read the assigned readings and be prepared to participate in a seminar discussion of those readings. The intent of the discussion assignments is to introduce a rigor of efficient reading, to learn skills in paraphrasing the ideas of others, and to interpret these ideas into use within your own research. The students should be able to concisely summarize key points of the readings and recognize applications to your own research topic.

Periodic assignments will apply the research skills from the readings toward developing a final research proposal. The periodic assignments are cumulative and are meant to produce a concise proposal for your subsequent research. All periodic assignments must comply to the format and style criteria established in the required reference texts for this course. Descriptions of individual assignments are located within the course schedule.

ARC 497b Special Topics in Architecture: Travel Drawing and Assemblage

Credit Hours:	3	Offered:	Summer
Type:	Lecture/Laboratory, Elective	Instructor:	Mary Hardin

Prerequisites: Approval of Orvieto Program Director

COURSE DESCRIPTION:
Special projects with the purpose of developing skills of observation, description and documentation of a discovery trip through various media in a journal format. Students are provoked to seek out a richer travel experience through the assignments completed in a daily log; annotated, illustrated and assembled.

COURSE OBJECTIVES:
This course will enable students to:

1. Develop a methodical way of recoding travel experience through writing, drawings, and collage.
2. Make a layered document that enhances recall of the travel experience.
3. Send excerpts of the experience of the visited place back to the home place.

COURSE REQUIREMENTS:
Class preparation: Assigned readings from the course reader on topics of travel journals and sketch diaries during the travel period.

Assignments and presentations: Students are required to complete and submit daily journal drawings during class meetings and in between class meetings. One journal entry is required for each day of travel May 25-June 30, including free days. Each entry must be dated. Specific assignments will be given to stimulate observation and active recording. Subject matter for other assignments will be determined by the individual students. Five postcard drawing assignments will be given (one for each week of the session) and these drawings must be mailed to Sheila Blackburn at CALA, 1040 N. Olive Rd., University of Arizona, Tucson Arizona, 85721.

All journals should be submitted to the CALA main office by August 1, 2006.

COURSE TOPICS AND STRUCTURE:
The course topics include: the observation of urban spaces, cuisine, cultural traditions, verbal expressions and interactions, transportation, pace of life, spaces of habitation and spaces for other daily functions in Italy.

The instructor meets with students on Mondays to introduce course topics and review assignments, and on Tuesdays and Thursdays to draw in the field. Wednesdays and Fridays are typically scheduled for field trips beyond Orvieto.

ARC 497b.3: Architecture and Choreography

Credit Hours:	2 (Fall) or 3 (Spring)	Offered:	Fall / Spring
Type:	Studio/Writing/Discussion Elective (communication)	Instructor:	Beth Weinstein
Prerequisites:	Successful completion of ARC 201		

COURSE DESCRIPTION

This course examines the relationship between architecture and choreography through research into historic and contemporary collaborations between the disciplines. Students also, depending on the semester, will develop concepts and schematic proposals for a set / costumes, or develop and construct/fabricate a set / costumes for an original choreographic work. In both semesters students will directly interact with faculty / students from the School of Dance and/or visiting performance groups.

COURSE OBJECTIVES

To gain an awareness of concepts and strategies for organizing space and time that are shared by architects and choreographers.
To become aware of the history of architects working within theater arts.
To discover similarities and differences in modes of notating, drawing and representing ideas about space through research and making drawings.
To develop critical thinking, discussion and writing skills.
To develop research skills to be applied to a design project.
To take a project from schematic sketches through the construction phase and testing by the user.
To learn through examination and discussion with "makers" in allied creative professions.
To develop collaboration skills and skills for interacting with a client / user.

COURSE REQUIREMENTS

The Fall Semester is divided in three parts: [1] critical writing, [2] analytic and notational drawing, and [3] research into the project theme and schematic design development. Students are expected to become articulate about the historical and cultural context of architects collaborating with choreographers or other theater works. The are required to study one work in detail through drawing, and to fully contribute to the collaborative research and schematic design project.
During the Spring Semester, students will be required to participate fully and collaboratively to develop the designs for all aspects of the set/costumes for the performance; students will then take on individual responsibilities for the development and realization of parts of the set. A final bound document will be collaboratively made recording the project's development and realization. The instructor will be fully involved as a design partner for all parts of the design and realization and as the general project coordinator.

COURSE TOPICS & STRUCTURE

For the first half of the fall semester students will examine the larger cultural and historic context of the space of performance. for dance, and then begin examining more specifically sets designed for dance in the last decade or so, with the aim of discovering and revealing (through critical essays and drawings) conceptual themes that are both generating ideas for the movements, the organization of dancers/ performers in space, and the making of the physical set. Students will use this information to develop schematic design ideas for the set/space + larger concept of the new performance work. Students will sketches/prototypes to present to the School of Dance at the end of the Fall semester.

Spring semester will focus on the development of the schematic design, prototypes, material explorations, and the fabrication of the set elements. Students will have the opportunity to witness the rigging, lighting, striking of sets, and participate in the synchronization of the choreography, lighting and transforming presence of the set over the course of the performance. A final graphic document will be created to document the project.

NAAB Criteria:
1, 2, 3, 4, 7, 8, 9, 10

ARC 497j: Documentation & Interpretation of the Historic Built Environment

Credit Hours:	3	Offered:	Spring
Type:	Seminar / Workshop Elective	Instructor:	R. Brooks Jeffery
Prerequisites:			

COURSE DESCRIPTION

Examination of the methods to document buildings, districts and cultural landscapes combined with the methods to interpret their historical and design significance according to professional standards. The course will focus on the historic built environments of the Greater Southwest and will include a semester-long service-learning project that applies the documentation and interpretation methods introduced in this course.

COURSE OBJECTIVES

The aim of this course is to enable students to develop proficiency in the methods to document and interpret the cultural and design traditions of a variety of built contexts. Specific objectives are to enable students:

1. To conduct research using primary and secondary information resources;
2. To develop skills in the surveying, recording and communicating historic details, buildings, sites, districts and cultural landscapes according to professional standards;
3. To be knowledgeable of the cultural, historic, geographic, technological, economic and political factors that shaped the built environment in the Greater Southwest;
4. To develop analytical skills to interpret the meaning of built environments to a larger audience.

COURSE REQUIREMENTS

Required Texts:

Burns, John A. editor. Recording Historic Structures. Second Edition. Washington, D.C. : American Institute of Architects; J. Wiley & Sons, 2004.

COURSE TOPICS & STRUCTURE

This is a combination seminar and workshop course divided into four parts:

1. An understanding of the role of documentation and interpretation in the preservation of cultural resources;
2. Technical information on professional standards for the creation and use of primary documentation sources;
3. An historical overview of the cultural and design traditions of the Greater Southwest;
4. A semester-long service-learning project that applies documentation and interpretation methods introduced in this course.

Students will be responsible for completing two types of assignments:

Reading, Discussion and Teamwork. Students will be responsible for the assigned readings and to participate in a seminar discussion about their contents. Contribution to class discussion is a significant portion of your overall course grade. Students will be evaluated based on attendance, expressed knowledge of the required readings and discussion activity. The semester project will involve working individually and in teams. The final submittal will be a comprehensive class project; cooperation and teamwork are essential.

Semester Service-Learning Projects. The intent of the service-learning project is to create a product that contributes to the knowledge of the community and may be used in a variety of formats. Each of these projects will be divided into a series of interim assignments that will culminate in a final submittal. Each interim assignment will be reviewed by the instructor and discussed in the following class. Completed timesheets are a required component of each interim assignment submittal.

NAAB Criteria:
4, 11, 12, 18, 24, 26

ARC 497u/597u: Geometry-Material-Ergonomics

Credit Hours:	3	Offered:	Spring
Type:	Workshop, Elective	Instructor:	Christopher Trumble
Prerequisites:	Third year status or higher		

COURSE DESCRIPTION

This workshop course investigates the topics of *geometry*, *material* and *ergonomics*. Abstract principles, properties and conditions will be creatively employed and integrated through the development of an object designed for human use. Drawing, modeling, full scale fabrication and use will be our tools.

COURSE OBJECTIVES

1. Understanding of the inherent properties, fabrication processes and creative/technical potential of one or more materials
2. Ability to employ geometric principles (implicit/explicit, generative, organizational and structural) in the design process
3. Understanding of ergonomic conditions/criteria and the ability to effectively accommodate and incorporate them in the design process
4. Ability to effectively integrate and synthesize the multiple programmatic criteria of a single design

COURSE REQUIREMENTS

Students are required to successfully complete the projects outlined in this syllabus; specific requirements are further defined in separate assignment statements issued throughout the semester. Students are required to participate in group discussions regarding the development of projects by fellow students. Students are responsible for all personal expenses, including that required for physical research and documentation.

REQUIRED TEXTS:

No texts are required for this course. Readings, specific to each student's research, will be determined during the course of the semester.

COURSE TOPICS & STRUCTURE

Lectures will introduce conceptual provocation, technical information and precedence. Typical class times will be used for student presentations and group discussions. Laboratory sessions will be used for the design, fabrication, testing and analysis of prototypes.

Projects:

1. Conditioning Exercises: [3 weeks] Students will be required to select a precedent for analysis; deducing the abstract properties of the corresponding topic. The assignment is to facilitate the student's understanding of the principles inherent to the success or failure of a designed object. Once understood in the context of the precedence the abstract properties should be rendered portable (and malleable) for the application in an original design. The three facets of this assignment will be performed concurrently.
   Precedence: abstraction / Geometry
   Precedence: abstraction / Material
   Precedence: abstraction / Ergonomics
2. Concept: [2 weeks] Students are to propose a concept for an object for human use. The concept may originate from one of the three criteria: *geometry*, *material* or *ergonomics* yet the concept must expand to address all three criteria.
3. Prototype: [11 weeks] Students are to develop and refine the design of their object. This stage will consist of multiple iterations; requiring regular development and fabrication of components and/or whole. The process is to include drawings/diagrams required to investigate, develop, construct and describe the finished prototype.

NAAB Criteria:
11, 17, 18, 21, 24

ARC 497v/597v: Affordable Housing and Community Development

Credit Hours:	3	Offered:	Fall
Type:	Lecture, Elective (Arc or Open)	Instructor:	Emily Nottingham

Prerequisites: None

COURSE DESCRIPTION

This class presents an overview of contemporary affordable housing and community development issues in the United States. Topics include government housing policies; social and economic issues affecting housing, the role of private, public and non-profit housing providers, and community development concepts and practices. Crosslisted with PLNN 497v.

COURSE OBJECTIVES

1. Develop understanding of role of housing and community development in a national, state and local context.
2. Develop understanding of factors that influence the cost and development of housing.
3. Develop understanding of solutions to affordable housing and neighborhood decline.

COURSE REQUIREMENTS

In addition to class participation and a group presentation/paper, students are expected to complete and innovative paper, quiz and exam.

Required Texts:

Bratt, Stone and Hartman, A Right to Housing. Other materials will also be assigned.

COURSE TOPICS & STRUCTURE

Introduction / Why Housing Matters/ Setting the Stage—Pre 20th Century US Housing Policy
Location, location, location/ Working in and with a Neighborhood
US Housing Policy
Defining Affordable Housing/State of Housing Today
Costs of Housing/Financing Housing/ Neighborhood Presentations
Assignment: Presentations of Neighborhoods
Development Process: Non-profit developers of Affordable Housing
Federal Rental Housing Programs
Developing/Preserving Rental Housing/Some Alternative approaches to housing
Assignment Due: Innovative affordable housing program
Community Development:
Homelessness: Is it a Housing issue?
Land Use: Exclusionary and Inclusionary Zoning./ Exam
Community Development Tools - Presentations of non-profits
Assignments: Non-profit presentations
CDBG. Making difficult choices
Barriers to housing and community
Assignment (Grad students) Affordable housing policy paper
Quiz. Downtown housing communities
Project Presentations

ARC 493/593: Internship Program — **School of Architecture**

Credit Hours 1-3 — Offered: Spring, Fall.

Type: Seminar/Work Sessions, Elective (Practice) — Instructor: Shambach

Prerequisites: None or with permission of the instructor

COURSE DISCRIPTION:

Seminar Sessions and four or more hours per week in architecture or allied career office

COURSE OBJECTIVES:

The primary objectives are:

1.To provide experience in the four major categories of architectural practice:
- A. Design and Construction Documents
- B. Construction Administration
- C. Management
- D. Related Activities

2.To provide information, advice about educational, internship and professional issues and opportunities

3.To prepare students to obtain the most value from an internship experience in an architectural or allied profession

The secondary objectives are:

1. To allow students to explore a variety of possible roles open to them in practice
2. To test principles, information and theories obtained in regular academic work
3. To provide a transition from the academic environment to the profession
4. To provide an opportunity for the involvement of practicing architects and allied professions in the educational process and to develop strong between the School of Architecture and the profession.

COURSE REQUIREMENTS:

Students in this course are expected to achieve the following:

1. Understanding of the breadth of values in the profession
2. Understanding of the many tasks involved in the practice of architecture
3. Understanding of the interrelationship of the four major practice categories listed above.
4. Understanding of the diverse roles and responsibilities of persons in an architectural practice.
5. Ability to interact with practitioners, their clients and consultants.
6. Ability to negotiate work terms and schedules and to maintain an agenda of professional activities

Readings for Reference:

AIA, the Architect's Handbook of Professional Practice, 2002 (13th) edition

COURSE TOPICS AND STRUCTURE:

The parts of the course are as follows:

1. Series of seminars including lectures and discussion on the following topics:

A. obtaining an internship position

B. the main categories of practice

C. documenting and evaluating an internship experience

2. In the work place, at least two hours of active instruction by or shadowing of firm members in each of the main categories of practice during the internship period. Complementary work activities will be required for no less than four hours per week at no less than minimum wage. Ideally this will be billable work on current projects. Where the student and employer desire a heavier workload, any arrangement that is made between the student and employer must be understood as being neither sanctioned nor opposed by the School.

3. Coursework

A. Hours of Work Verification signed by employer.

B. A project to be submitted or presented to the instructor which illustrates the student's understanding of the primary and secondary objectives of the course.

C. An evaluation of the intern by the employer or staff member who has directly supervised the student.

4.4 FACULTY RESUMES

RICHARD G. BRITTAIN
Assistant Research Professor

CURRENT TEACHING
Arc 301 Design Studio III: Land Ethic
Arc 481d Architectural Photography

EDUCATION
M. Arch., University of Arizona, Tucson, 1979
B. Arch., University of Arizona, Tucson, 1979
B.S., University of Illinois, Champaign-Urbana, 1973

ACADEMIC EXPERIENCE
Assistant Research Professor, School of Architecture, University of Arizona, 1993-present
Research Associate, College of Architecture, University of Arizona, 1984-1993
Research Assistant, College of Architecture and Mine Reclamation Center, University of Arizona, 1979-1983
Teaching Assistant, College of Architecture, University of Arizona, 1978-1979

AWARDS AND HONORS
Darryl B. Dobras Award for Excellence in the College of Architecture, 1998
Arizona Department of Water Resources Certificate of Appreciation for Development Arizona's Third Management Plan, 2000
Rincon Vista Recreational Field Facility, designed and built by architecture students, recognized as a Sports Facility of the Year by the National Intramural-Recreational Sports Association, *Recreational Sports and Fitness*, 26 October 2001
Dean's Citation, 1995-96

PUBLICATIONS
"Casa del Agua and Desert House: Two Residential Demonstration-Research Projects on Water and Energy Efficiency" public lecture presentation published in new book titled Exploring the Built Environment, Essays on the Presentations of Diwan Al-Mimar and Affiliated Public Lectures, edited by Mohammad al-Asad and Majd Musa, published by Center for the Study of the Built Environment (CSBE) and Darat al Funun–The Khalid Shoman Foundation, Amman, Jordan, 2007
The Desert House Water Conservation Project Summary Report 1994-2001, co-author, submitted to City of Phoenix Water Services Department, 2003
"Casa Del Agua: Water Conservation Demonstration House 1986 Through 1998", co-author, Journal of the American Water Resources Association, Vol. 37, No. 5, 2001
Casa Del Agua Water Conservation Demonstration House Summary Project Report 1986-1998, co-author, submitted to Tucson Active Management Area, Arizona Department of Water Resources and US Department of Interior Bureau of Reclamation, 2000
"Construction Technique *Discover the Natural Attractions of Rammed-Earth Architecture*" article by Justin Henderson, Sanders-Huffman residence, Tucson, Arizona, House Beautiful Home Building, Spring/Summer 2000
Photographs published in Architectural Programming and Predesign Manager by Robert G. Hershberger, McGraw-Hill, New York, 1999
"Desert House: A Demonstration/Experiment in Efficient Domestic Water and Energy Use", co-author, Water Resources Bulletin, American Water Resources Association, Vol. 30, No. 2, 1994
"Residential Water Conservation and Reuse Demonstration: Casa Del Agua and Desert House", co-author, American Society for Civil Engineering, 1992
"Demonstration Residence Water Conservation and Reuse in the Sonoran Desert", co-author, Water Science Technology, Vol. 24, No. 9, 1991
"Toward a Responsive Tohono O'Odham Dwelling", co-author, Arid Lands Newsletter, Vol. 28, No. 2, 1989
"Desert House: Water and Energy Conservation", co-author, Arid Lands Newsletter, Vol. 28, No. 2, 1989

LECTURES AND CONFERENCE PARTICIPATION
"Cistern Water Quality at Twelve Sites in Tucson, Arizona" presentation at Looking Ahead: Managing Stormwater and Harvesting Rainwater for Conservation Conference, Tucson, Arizona, American Rainwater Catchment Systems Association, Southwest Region and Consortium for Action Through-out the Community for Harvesting Water, co-author, 2006
Arid Landscaping, Rainwater Harvesting and Graywater Project Workshop, instructor, Amman, Jordan, Center for The Study of the Built Environment, (2) trips to date, 2001-ongoing

RESEARCH & CREATIVE ACTIVITIES

"Research, Analyze and Synthesize Goals and Outcomes of Civano Water Conservation and Develop Guidelines for Transfer of Civano Technologies to Low Cost Housing", Drachman Institute Study Task, November 2005

"Rainwater Harvesting - A Neglected, Significant Source of Water for Arid Lands", interdisciplinary research creating an education and demonstration campus at the Tucson Nature Conservancy, multiple agency funded, 2005-ongoing

"Demonstration of the Sustainability of Harvested Rainwater in Arid Lands to Meet Water Requirements and to Improve Quality of Runoff", interdisciplinary research, EPA funded, 2003-2005

"Assessment and Analysis of Water Data Collected at Desert House from 1994 through 2000", interdisciplinary research with Office of Arid Lands Studies, City of Phoenix funded, 2003

"Southside Community School", South Tucson, Arizona, CPDW (Community Planning and Design Workshop) funded studio: programming/site planning/design for educational and public facilities, fall 2002

"San Pedro Mesquite Company Project", Cascabel, Arizona, funded studio: programming/site planning/design for residential and education center, fall 2001

"Pueblo Nuevo: A New Way of Affordable Living", South Tucson, Arizona, funded studio: programming/site planning/design for residential and commercial facilities, fall 2000

"Tohono O'Odham Community Action (TOCA) Facility", Sells, Arizona, funded studio: programming/planning/design, fall 1999

"Rincon Vista Recreational Field Facility", funded design/build studio for rammed earth classroom, office, storage and restrooms for University of Arizona Department of Campus Recreation, fall 1996 to spring 1998 (design through construction)

"Demonstration Cisterns and Investigation of Feasibility of Water Harvesting for Army Installations", co-author, rainwater system design/construction, Ft. Huachuca, Corps of Engineers Construction Engineering Research Laboratory funding, 1996

"AEPCO Affordable Houses", Benson, Arizona, funded studio: design and construction documents for (3) affordable, energy efficient houses, Arizona Electric Power Cooperative funded, 1995

"Water Conservation and Supply Alternatives for the Desert Museum", Tucson, Arizona, co-author, Sonoran Desert Museum funded, 1992

"The Desert House Project", Phoenix, Arizona, co-author/designer/researcher, programming/schematic design/construction consulting/monitoring, City of Phoenix, Salt River Project, Desert Botanical Garden and others funded, 1986-2000

"Casa Del Agua", Tucson, Arizona, co-author/designer/researcher, programming/design/documents/construction/monitoring, Tucson Water, Pima County Wastewater and others funded, 1983-1998

PRACTICE

Henderson Porch Remodel and Rainwater Harvesting System, Tucson, Arizona, 2007-ongoing
Foran & Knutson Residence Rainwater Harvesting System, Tucson, Arizona, consulting for Taylor Design + Build, 2007-ongoing
Hadley & Warshall Adobe Dwelling, Portal, Arizona, 2006-ongoing
Henderson Knoll Essential Dwelling, Cascabel, Arizona, presently under construction, 2005-ongoing
Moroney 47 Ranch New Adobe Offices and Master Bedroom Suite, McNeal, Arizona, 2005-ongoing
Moroney 47 Ranch Historic Adobe House Remodel, McNeal, Arizona, presently under construction, 2005-ongoing
Villaescusa Cabin Rainwater Harvesting and Graywater Systems, Mt. Lemmon, Arizona, 2004-2005
Vivian Straw Bale House, St. Johns, Arizona, 2002-2005
St. Michael's School Rainwater Harvesting System, Tucson, Arizona, consulting for Bob Vint and Assoc. Architects, 2001-2002
Griffin Historic Adobe Residence Stabilization and Rehabilitation, Tubac, Arizona, 2000
Lancaster Residence Rainwater Harvesting System, Vail, Arizona, 1999
McArthur Adobe Residence Stabilization and Remodel, Tucson, Arizona, 1999
Rueb Residence, Arivaca, Arizona, 1997
Jones Residence Rainwater Harvesting System, Tucson, Arizona, 1996-ongoing
Zirato & Nilsen Residence Addition, Tucson, Arizona, 1995-1997
Gaus Adobe Residence, Tucson, Arizona, 1995
Rice Residence Rainwater Harvesting System, Mount Lemmon, Arizona, 1995
Sanders & Huffman Rammed Earth Residence, Tucson, Arizona, 1993-1995
Native Seeds/SEARCH New Offices, Tucson, Arizona, master planning, 1993
Smith Adobe Residence, Tucson, Arizona, 1990-ongoing
Burns Adobe Residence, Adobe Garage and Remodel of Existing House, Tucson, Arizona, 1988-1990
Naylor Caretaker House, Bunk House and Main Residence, Sonoita, Arizona, 1988-1992
Brittain Rammed Earth Residence, Tucson, Arizona, 1985
Spernick Rammed Earth Residence, Avra Valley, Arizona, 1985
Tucson Botanical Garden Rainwater Harvesting System, Tucson, Arizona, 1985

KATHLEEN CARLETON
Adjunct Faculty

CURRENT TEACHING
Arch. 202 Design Studio

EDUCATION
AA Simons Rock of Bard, 1976
BArch., University of Arizona, 1995

ACADEMIC EXPERIENCE
Adjunct Faculty, School of Architecture, University of Arizona, 2007-2008

AWARDS AND HONORS
Sonoran Institute – Best of Tucson

PUBLICATIONS

LECTURES AND CONFERENCE PARTICIPATION

EXHIBITIONS

RESEARCH & CREATIVE ACTIVITIES
Barrio Hollywood Cambio Grande

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Design Review Board – City of Tucson 2007 –
Sonoran Institute Design Academy
Barrio Hollywood Enhancement
Drachman Institute

PROFESSIONAL MEMBERSHIPS
AIA, USGBC, MAPP,

LICENSES & PRACTICE
Arizona State Board of Technical Registration #34302
Kacey Carleton architect, aia Principal Tucson Az 2005 –
Project Architect - DesignBuild Collaborative, Tucson, Az. 2006-2008
Project Architect - Burns and Wald-Hopkins 1999 - 2005
Architect – Design Build Collaborative 1995 – 1999
Architect Intern – Dominique Bonn-Amour Lloyd architect 1992-95
Architect Intern – Despacho de Geraldo Essesarte Mexico DF 1993
Building types: Public, Recreational, Governmental, Residential, Site Design and Master Planning Studies

LAURA A. CARR
Adjunct Faculty

CURRENT TEACHING
Arch 101 Foundation Studio, Fall 2008

EDUCATION
BArch, University of Arizona, Tucson, 2005
BS in Mathematics, Minor in Physical Science, Northern Arizona University, Flagstaff, 1996

ACADEMIC EXPERIENCE
Teaching Assistant History and Theory, School of Architecture, University of Arizona, 2003
Teaching Assistant 402 Drachman Institute Community Outreach Studio, 2005 - 2007

AWARDS AND HONORS
Arizona Department of Housing Affordable Housing Institute Certificate, 2005/06
Governor's Housing Hero Award in Sustainable Design (Shonto Service Complex), 2006
Capstone Award, 2005
American Institute of Architects Certificate of Merit, 2005
Deans list honorable mention, graduated #2 with academic distinction, 2000 - 05
Curriculum Committee representative, 2004
Representative to NAAB, 2004
American Institute of Architects National Design Scholarship, 2003 & 04
Hershberger Foreign Travel Study Grant, 2004
Roy Drachman Scholarship in Architecture for Academic Excellence, 2003 - 05
Nicholas G. Sakellar, FAIA Memorial Scholarship in Design Excellence, 2004

LECTURES AND CONFERENCE PARTICIPATION
"Affordable Housing Workshop", Arizona Department of Housing, 2005 - 2007

EXHIBITIONS
PLAY Arts, Featured Exhibitor, sculpture, painting, glass and metal work, 2008-present

RESEARCH & CREATIVE ACTIVITIES

Healthy Neighborhoods: a three-year grant from HUD conducted in partnership with the College of Architecture and Landscape Architecture, the College of Public Heath, and others. Project goals included working with neighborhoods designing homes, neighborhood plans and educational materials that encourage heathly lifestyles for individuals, families and communities. Drachman Institute, 2005 - 2007

Architecture Technical Assistance: Managed, directed and coordinated student work. Projects included a subdivision plan for the Town of Marana, a travel plaza and village master plan for Sipaulovi (Hopi Nation), a master plan and housing designs for Yomme Barrio Libre (Pascua Yaqui), a travel plaza for Shonto (Navajo Nation), a mobile replacement house design for CHRPA and infill housing designs for Phoenix Revitalization Corporation. Drachman Institute, 2005 - 2007

City of Tucson Neighborhood Plans: Partnership with the City of Tucson to develop overlay zones. Work included documentation of condition, historic elements, structures, architectural styles, land use, demographics, ownership and future build-out under the current zoning. Other participation includes presentations at public meetings and facilitation of design charrettes. Drachman Institute, 2005 - 2007

Drachman Design+Build Coalition (DDBC): Work included construction documents for Residence One a rammed earth and steel frame house completed in 2005 and detail revisions, coordination and marketing for The Nice House a modular steel frame house constructed by DDBC in partnership with Tucson Habitat for Humanity. Work has also included participation in the Lessons from Civano grant. Duties under this project included analyzing research previously conducted at Civano in order to understand what active

and passive energy and water conserving methods were most successfully executed at this model green community. Study included analyzing the subdivisions orientation, micro and macro climates, construction methods and materials. This study then informed the design of five homes using either insulated shell or thermal mass construction designed to preform on 'typical' city infill lots. Drachman Institute, 2005 - 2007

Barrio San Antonio Rezoning and Development: Completed a direct-ordinance rezoning from I-1 to R-2, which included producing a development plan, presenting at public hearings and coordinating infrastructure bidding and design for a five lot subdivision in the Barrio San Antonio neighborhood. Drachman Institute, 2005 - 2007

Arizona Department of Housing: Provided technical assistance to clients of the Arizona Department of Housing. Work included designing master plans, housing and conducting housing assessments throughout the state and on tribal lands. Recent projects include a mixed-use master plan in Shonto (won the 2006 Housing Hero Award), housing assessments for Globe, Miami, Holbrook, Show low, Patagonia and Winslow and a multi-family infill housing design for Payson Habitat for Humanity. This work has also included seminars, workshops and lectures. Drachman Institute, 2005 - 2007

Arizona Department of Environmental Quality Storm Water Mitigation Grant: Designed full residential water recycling system that included a rainwater to drinking water system, grey water collection and recycling system (for reuse in toilets) and storm water mitigation system. Both the grey water and storm water systems used phytoremediation to remove pollutants and nutrients from the water, in turn growing vegetation for shading, humidifying, controlling erosion and producing food. Taylor Design+Build, 2008

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

Project Architect, Taylor Design+Build, 2007 – present
Co-designer, Drachman Design+Build Coalition pro-bono work, 2008 - present
Project Manager / Research Specialist, Drachman Insititute, 2004 – 2007
Intern Architect, Poster Frost and Associates, 2004

DALE TIMOTHY CLIFFORD
Assistant Professor, Full-Time

CURRENT TEACHING
Graduate research: Material Technologies
Design Studio VIII: Capstone Studio
Design Studio IV: tectonics
Design Studio VI: Material Studio
Building Technology IV: Concrete
Building Technology V: Steel
Capstone Seminar: Technology

EDUCATION
M.S. in Architecture (Building Technology), MIT, Cambridge, MA, 1999
B.Arch., Pratt Institute, Brooklyn, NY, 1994

ACADEMIC EXPERIENCE
Assistant Professor, School of Architecture, University of Arizona, 2002-2008
Adjunct Professor, School of Architecture, Portland State University, OR, 2001-2002
Adjunct Professor, Boston Architectural Center, MA, 2000

AWARDS AND HONORS
2007 Artist-in-Residence, Museum of Contemporary Art
2006 Merit Award, Furniture and Design Showcase
2005 Dobras Award for Excellence in Teaching, CALA
2004 Dobras Award for Excellence in Teaching, CALA
2003 Excellence in Teaching and Service Award, CALA
1999 Voss Achievement Award, MIT

PUBLICATIONS

1999 International Association of Shell and Spatial Structures, "How Many Sticks Does It Take To Cross The Road: Tensegrity Bridge Design"
1999 International Association of Shell and Spatial Structures, "The Kinetic Hyperboloid: Morphology and structural analyses
Proceedings of the 4th International Conference on Intelligent Materials "Cell Based Biomimetic Materials",

EXHIBITIONS
1999 Tensile Canopy, Large scale spatial intervention, grant awarded from the MIT Council for the Arts
1999 Tensegrity Icosahedron, Large-scale structural sculpture, grant awarded from the MIT Council for the Arts
1996 Acoustic Column, Construction of a wind responsive mechanism to translate wind energy to acoustic energy, grant awarded from the Lane County Arts Council, Eugene, OR.
1996 Tensile Cathedral, Gothic forms constructed with cable and string, funding awarded from the Willamette Science and Technology Center, Eugene, OR
1995 Hyperbolic Garden, Construction of a suspended tensile garden, grant awarded from the Lane County Arts Council, Eugene, OR,

RESEARCH AND CREATIVE ACTIVITIES
2002 Folding table design currently in production, Design Ideas (manufacturer)
1999 Development of building components utilizing 3-D CAD/CAM technology. Application for triangulated folding domes. Research Scientist, MIT
2000Patents Pending 1. Radially Expanding Device 2. Method of Manufacturing Complex 3-D Structures 3-D Surgical Mesh and Method of Manufacture

Projects realized while working as senior designer for Molecular Geodesics, Inc., Boston, MA:
2000 Development of surgical retractors that reduce trauma by more evenly distributing load to the wound site, Johnson and Johnson
1999 Development of polyhedral lattices for interior structure for a lightweight wing, Lockheed Martin,
1999 Development of lightweight panels that efficiently dissipate heat, NASA
1999 Design of an expanding device to prevent aneurysm rupture, Boston Scientific

ACADEMIC, PROFESSIONAL, AND PUBLIC SERVICE

2006-7 Rose Neighborhood Pedestrian Bridge, Designer
2005 La Madera Park, Designer
2005 Nash Elementary, Habitat for Humanity/United way Team Leader, Design and Construction of a Garden tool Storage shed with digital fabrication tools.
2004-8 Lecturer, University of Arizona Speaker Service
Designer, LINCOS: Little Intelligent Communities, San Juan, Costa Rica
Programming, schematic design and design development of a communications/telemedicine 'container' to be mass produced and distributed in the developing countries of Latin America.

PROFESSIONAL MEMBERSHIPS

Structural Morphology Working Group, International Association of Shell and Spatial Structures

LICENSES AND PRACTICE

Lamb Design Studios, Portland, OR, 2002
Chermyeff, Sollugub and Poole, Inc., Boston, MA 2001-2002
Molecular Geodesics Inc., Boston, MA, 1998-2000

CHRISTOPHER DOMIN
Associate Professor

CURRENT TEACHING
Arc 101 Foundation Studio I
Arc 241, Arc 341 Design Communication (Digital Module)
Arc 302 Design Studio IV (Tectonics)

EDUCATION
Master of Architecture, Georgia Institute of Technology/Ecole d'Architecture de Paris: La Villette, 1993
Bachelor of Arts in Architecture, University of New Mexico, 1991

ACADEMIC EXPERIENCE
Associate Professor, School of Architecture, University of Arizona, 2007-present
Assistant Professor, School of Architecture, University of Arizona, 2001-2007
Visiting Assistant Professor, University of New Mexico, 2000-2001
Adjunct Assistant Professor, University of New Mexico, 1999-2000

AWARDS AND HONORS
Research and Teaching
Outstanding Book of the Year Award, for *Paul Rudolph: The Florida Houses*, with Joseph King, SE Society of Architectural Historians, 2004
Dobras Award for Excellence in Teaching, UA College of Architecture & Landscape Architecture
Dobras Award for Excellence in Service, UA College of Architecture & Landscape Architecture
Nix Mann Fellowship, Georgia Institute of Technology, 1991-92

PUBLICATIONS
Scholarly Books
Paul Rudolph: The Florida Houses, with Joseph King (50/50), Princeton Architectural Press, 2002
First reprint 2003, Second edition 2004, Paperback edition 2005
Articles: refereed
"Paul Rudolph's Nomadic Practice," South (premier edition), Clemson University Architecture Journal, Fall 2005, pp 82-91
"Paul Rudolph's Building Culture: The Sarasota Work," with Joseph King (50/50), Docomomo International Journal, special edition on American Modernism edited by Joan Ockman, September 2004, pp 86-89 with image from article on the cover
"Mind and Body in the World," with Laura Hollengreen (lh60/cd40), ACSA Finishing School Proceedings, 2004, pp 100-106
Articles: invited
"Victor Lundy: Material Practice," catalog essay for Ballroom Marfa, 2006
"Paul Rudolph: Biography," Scribner Encyclopedia of American Lives, Volume 5, 2002

LECTURES AND CONFERENCE PARTICIPATION
Scholarly Lectures: invited (select)
"Contextual Strategies," invited lecture, Wellesley College, Jewett Arts Center, 2006
"Paul Rudolph and the South," invited lecture, Museum of Florida History, 2006
"Lightness and Monumentality," invited lecture, University of Massachusetts: Dartmouth, University Art Museum lecture series, 2006
"Regionalism and the South," invited lecture, Louisiana Tech University lecture series, 2005
"A Regional Modernism," invited lecture, Georgia Institute of Technology lecture series, 2004
"Paul Rudolph: In Context," invited lecture, MOCA: Tucson, Design Lab lecture series, 2004
"Paul Rudolph: The Florida Houses," featured speaker, AIA Georgia Annual Design Conference, 2004
"Judith Chafee's Ramada House," MOCA: Tucson, invited speaker and panel session participant, 4x4 lecture series, 2004
"Regionalism and the South," invited lecture, University of North Carolina: Charlotte lecture series, 2004
"Paul Rudolph: The Florida Houses," invited lecture, Graham Foundation for Advanced Studies in the Fine Arts, 2003
"Paul Rudolph's Independent Practice," invited lecture, Columbia University, 2003
"Paul Rudolph's Early Partnership," invited lecture, South Florida Museum, 2003
"Paul Rudolph's Independent Practice," invited lecture, Kansas State University lecture series, 2003
"Paul Rudolph: The Florida Houses," invited lecture, University of Miami lecture series, 2002
Conference Presentations: submitted peer reviewed
"Victor Lundy: Sacred Structure," SE Society of Architectural Historians: Annual Meeting 2006

"Building the Landscape: Frank Lloyd Wright at Florida Southern College," SE Society of Architectural Historians: Annual Meeting, with Joseph King (50/50), 2006
"Mind and Body in the World," paper presented at ACSA: SE Conference, with Laura Hollengreen (lh60/cd40), 2003
"Media & Medium," paper presented at Society of Architectural Historians, Annual Meeting, 2000
Symposia Presentations: invited
Organizations for Change, International Urban Design in Arid Zones Symposium, panel session moderator, 2005
21st Century Art Museum, MOCA: Tucson, panel session presentor with Rick Joy, 2004
"Contemporary Manifestations," Sarasota School of Architecture Symposium, panel session moderator, 2001

EXHIBITIONS curated
Paul Rudolph: The Florida Houses, with Joseph King (50/50), Traveling exhibition (select), 2001-present
Wellesley College, Jewett Arts Center, 2006
Jule Collins Museum of Art, Auburn University, 2006
University of Massachusetts: Dartmouth, 2006
Louisiana Tech University, 2005
University of Arizona, Tucson, 2005
Museum of Design: Atlanta, 2004
University of North Carolina: Charlotte, 2004
Columbia University, 2003
Kansas State University, 2003
University of Miami, 2002
Florida Southern College, 2002
Cummer Museum, 2002
A. Richard Williams: Habitat, with Exhibit Lab/Dick Williams (50/50), CALA: Sundt Gallery, 2007
21st Century Art Museum, new museum proposals by John Messina and the Adaptive Reuse Studio, MOCA: Tucson, 2004
Paul Rudolph: Cannon Chapel, with Joseph King (50/50)
Emory University, Atlanta, 2005
Museum of Design: Atlanta, 2004

ACADEMIC AND PUBLIC SERVICE
Local / State Outreach
Design Lab (architecture and design affiliate group), MOCA: Tucson, director, 2004-2007
MAPP: Tucson (Modern Architecture Preservation Project), executive committee member, 2004-present
El Presidio Historic District Advisory Board, professional member (elected), 2007-present
National / International Outreach
Cooper-Hewitt National Design Museum, National Design Awards Program: Nominating Committee, 2006-present
Association of Collegiate Schools of Architecture: Councilor (elected), 2006-2007
Coordinator of Exchange Program with Mexican Universities (Mexico City: La Salle, UNAM), 2003-present
Mosaic: a journal for the interdisciplinary study of literature: architecture peer reviewer, 2001-present
Departmental Committee(s)
New Degree Task Force, (appointed chair), University of Arizona, 2007-present
direction of ad hoc committee organized to restructure the professional degree program for the School of Architecture
Faculty Search Committee (two positions), University of Arizona, 2006-07
Faculty Search Committee (two positions), University of Arizona, 2005-06
Curriculum and Standards Committee (appointed member), University of Arizona, 2002-2006
Communications Sequence Coordinator (elected 2002-06), University of Arizona, 2002-present
NAAB Accreditation Committee (member), University of Arizona, 2002-03
Academic Events Committee (appointed chair 2002-06), University of Arizona, 2001-present
Undergraduate Admissions Committee (member), University of Arizona, 2001-2007
Exhibition Coordinator, University of Arizona, 2001-present
CALA Faculty Status Committee (member), 2007-present
CALA Academic Events Committee (chair), 2006-present
University Committee(s)
Honors College Advisor for CALA: School of Architecture, 2007-present
Chronology of Curatorial Service
Museum of Contemporary Art: Tucson, Curator of Architecture, 2003-2007
Museum of Design: Atlanta, Guest Curator, 2004
University of Arizona, School of Architecture, Exhibition Coordinator, 2001-present

PROFESSIONAL MEMBERSHIPS
Registered Architect: GA, RA 009780, 1998-present
Society of Architectural Historians (member), 2000-present
Association of Collegiate Schools of Architecture (member), 1999-present
Modern Architecture Preservation Project (executive committee member), 2004-present
Frank Lloyd Wright Association (member), 2002-present

DENNIS DOXTATER

Associate Professor

CURRENT TEACHING
202 Design Studio
227 Architectural Programming
451 Elective Design Studio
471B-571B Space: A Socio-Cultural View

EDUCATION
D. Arch.,University of Michigan. 1981
MA (Socio-Cultural Anthropology), University of Washington. 1971
Peace Corps Peru Training Cornell University. 1965
B. Arch., University of Washington, 1965

ACADEMIC EXPERIENCE
Associate Professor, University of Arizona, 1984-present.
Assistant Professor, University of Arizona, 1980-1984.
Visiting Lecturer, University of Washington, 1979
Assistant Professor, University of Idaho, 1977-1978.
Lecturer, University of Michigan 1975

PROFESSIONAL PRACTICE (licensed State of Washington 1973)
Rebecca and Dennis Doxtater, residential landscape design: 40+ projects. 1992-present
Jon Decker, AIA Architects, Seattle. 1971-73
Lloyd Thorson, Landscape Architect, Seattle. 1969-70
Joyce, Copeland & Vaughn, Architects and Planners, Seattle. 1968
Marquis & Stoller, Architects and Planners, San Francisco.1967-68
Architect with Peace Corps Peru. 1965-67

PUBLICATIONS
Books
2007 *The Evolution of Center Religion in the Ancestral Pueblo Landscape: georitual integration in context* (completed manuscript under revision for review, 320 pages)
1994 *Architecture, Ritual Practice & Co-Determination in the Swedish Office.* Ethnoscapes Series, David Canter & David Stea, eds.. Aldershot (UK): Avebury.

Refereed journal and book articles
2009 Minoan Palaces in a Georitual Framework of Natural Features on Crete. *Landscape Journal*, Vol 28:1 (Spring, in press)
2008 A report on Geopatterns software: describing and analyzing large-scale geometry between Anasazi and natural sites in the SW U.S.. In *Proceedings of the Computer Applications and Quantitative Methods in Archaeology 2006 Conference.* Budapest: Archaeolingua.
2007 What visitors "do" in recreational landscapes: using categories of affordances for evaluation, design and simulation. Gimblett, Randy and Skov-Peterson, Hans (eds). *Monitoring, Simulation, and Management of Visitor Landscapes.* University of Arizona Press. Tucson, Arizona (in press).
2005 Living in La Paz: an ethnographic evaluation of categories of experience in a New Urban residence hall. *J. of Architectural and Planning Research* Vol 22, Number 1, Spring.
2003 Parallel Universes on the Colorado Plateau: Indications of Chacoan Integration of an Earlier Anasazi Focus at Canyon de Chelly. *Journal of the Southwest.* Vol 45, No.1&2, Spring/Summer.
2002 A hypothetical layout of Chaco Canyon via large scale alignments between significant natural features. *Kiva* Vol. 67-5 (fall 02).
1991 Reflections of the Anasazi Cosmos. In *Social Space: Human Spatial Behavior in Dwellings and Settlements;* Gron, Engelstad, and Lindblom (eds); Odense: Odense University Press.
1984 Spatial Opposition in Non-Discursive Expression: Architecture as a Ritual Process. *Canadian Journal of Anthropology,* Vol. 4, No. 1, Summer.

Chapters in books/Research reports

2005 A Chacoan Georitual Interpretative Center on I-40. In *Seeing the Past*, Stanford Archaeology Center, February (digital publication of conference).

1998 La Paz Residence Hall, University of Arizona: evaluation of behavioral use by its residents. For University of Arizona Residence Life and Campus & Facilities Planning.

1996 Ritual and Ceremonial, Axis Mundi, and Norwegian-Americans. Three segments in *Encyclopedia of Vernacular Architecture*, Paul Oliver (ed.), Oxford: Basel Blackwell.

1996 Facilitating and structuring environmental knowledge: prototypical pre-design for a new campus Setting. Proceedings of the *3d Design & Decision Support Conference*, Spa, Belgium 1996. (co-authored with Daniel Mittleman, UA Management Information Systems)

1995 Structuration of individual and community in Scandinavian time and space: three conditions of architectural expression. Proceedings of the *Architecture Collegiate Schools of America Annual Conference*.

1993 The Student Union at the University of Arizona: an evaluation of student use. Research Report to the Student Union director.

1992 Building as Political Process or...Architecture as Human Information? In *Architectural Education and the Built Future*. N.Y.: National Institute for Architectural Education.

1992 Självbestämmandets Arkitektur ("self-determined architecture": summary of forthcoming book). *Arkitektur 2:92* (Swedish Journal of Architecture).

1990 Socio-Political Change and Symbolic Space in Norwegian Farm Culture after the Reformation. In *On Vernacular Architecture: Paradigms of environmental response*. Mete Turan (ed) Ethnoscapes Series, Vol. 4. London: Gower Press.

1990 The Meaning of the Workplace: Using Ideas of Ritual Expression as a Process in Design. In *Symbolics and Artifacts: Views of the Corporate Landscape*. Pasquale Gagliardi (ed). Berlin & New York: Walter De Gruter & Co.

1990 Architecture as Medium in the History of Human Space: The Cosmic, Architectonic, and Semiotic. Selected papers from the IAPS 11 / METU 1990 Conference: "*Culture /Space/ History*"; Ankara, Turkey / July 8-12, 1990.

1989 'Cultural Space' as a Needed Research Concept in the Study of Housing Change: The White Pueblos of Andalusia. In *Housing, Culture and Design: A Comparative Perspective*, Setha Low & Erv Chambers (eds). Philadelphia: The University of Pennsylvania Press.

LECTURES

2007 "Lessons from our georitual past: the origins of architectural formalism", School of Architecture, University of Texas, Austin.

2005 "A Georitual Chacoan Visitor Center on I-40". One of twenty-two speakers, *Seeing the Past*, Stanford Archaeology Center. Palo Alto, California.

2004 "Chacoan Ceremonial Sites in an Evolutionary Context of Landscape Religion". Arizona Archeological and Historical Society (Duval Auditorium). Tucson, Arizona.

2003 "Anasazi Georitual Patterns". Arizona State Museum (Brown Bag Series). Tucson, Arizona.

2003 "Georitual evolution on the Southern Colorado Plateau". Anthropology Department Lecture, University of Washington. Seattle, Washington.

2003 "The landscape relationship between Lowry Ruin, Ship Rock and Village of the Great Kivas Anthropology Department, University of New Mexico. Albuquerque, New Mexico.

2002 "The landscape relationship between Lowry Ruin, Ship Rock and Village of the Great Kivas". Crow Canyon Archaeological Center. Cortez, Colorado.

2002 "Social Space and Sustainability". Keynote speaker: *Arquitectos de la Tierra*, VII Semana de Arquitectura. Universidad de Sonora, Hermosillo.

2002 "Cosmos before Polis: Ritual Landscapes and Mythic Texts as Distinct Expressive Forms". Thirty-Seventh Annual Comparative Literature Conference / *Citizen of the World: Cosmopolitanism and its Ancient Antecedents*. California State University, Long Beach. (paper presentation)

2001 "Large-scale landscape alignments of archaeological sites: ritual integration or territoriality?" Department of Archaeology, University of Sheffield. Sheffield, UK.

2001 "Sacred landscape structure and the positioning of palaces in Minoan Crete". University of Arizona Classics Department. Tucson, Arizona.

1994 "Sacred landscape frameworks and the location of archaeological sites in Scandinavia". Institute of Middle Ages Studies, University of Trondheim. Trondheim, Norway.

1987 "Traces of social space in the archaeological record". Institute for Prehistoric Archaeology, Moesgård; Aarhus University; Aarhus, Denmark.

JOHN E. FOLAN, AIA
Associate Professor, Full-Time

CURRENT TEACHING
Building Technology IV, Module I: Materials and Methods II
Building Technology VI, Module II: Materials and Methods III
Construction Documents: Contracts, Working Drawings, and Specifications
Ethics and Practice
Design Studio I, Coordinator: Fundamental Spatial and Tectonic Elements
Design Studio IV: Tectonic Assembly

EDUCATION
Master of Architecture, University of Pennsylvania, Philadelphia, 1993
Bachelor of Science in Architecture, University of Illinois, Urbana/Champaign, 1990

ACADEMIC EXPERIENCE
Associate Professor, School of Architecture, University of Arizona, 2008- Current
Assistant Professor, School of Architecture, University of Arizona, 2002-2008
Visiting Assistant Professor, School of Architecture, University of Arizona, 2001-2002

AWARDS AND HONORS
2008 Robert C. Giebner Commendation for Teaching 2007-2008
2007 AIA Tucson Home of the Year
2007 Robert C. Giebner Commendation for Teaching 2006-2007
2007 Jury Selection, ACSA Faculty Design Award Program DDBC Residence One, Tucson, AZ
2006 AIA Merit Award; DDBC Residence One, Tucson, AZ
2006 Robert C. Giebner Commendation for Teaching 2005-2006
2005 AIA Merit Award; Ice House Lofts, Tucson, AZ
2005 AIA Honor Award; Ice House Lofts, Tucson, AZ
2005 Sonoran Institute BBO Award for Creative Urban Redevelopment and Rehabilitation: Ice House Lofts, Tucson, AZ
2005 University of Arizona Five Star Faculty Award
2005 Robert C. Giebner Commendation for Teaching 2004-2005
2004 Robert C. Giebner Commendation for Teaching 2003-2004
2004 AIA Excellence in Architecture Award: United States Embassy, Nairobi, Kenya
2004 AIA Excellence in Architecture Award: Smithsonian Institute National Air and Space Museum Steven F Udvar Hazy Center
2004 American Society of Landscape Architects Excellence Award; Smithsonian Institute National Air and Space Museum Steven F Udvar Hazy Center.
2004 American Institute of Steel Construction AISC) Award for Structure, Smithsonian Institute National Air Force and Space Museum Steven F. Udvar Hazy Center
2004 American Institute of Steel Construction AISC) Award for Architectural Structure, Smithsonian Institute National Air Force and Space Museum Steven F. Udvar Hazy Center
2004 American Concrete Institute Excellence Award, (ACI) , Smithsonian Institute National Air Force and Space Museum Steven F. Udvar Hazy Center
2004 International Association of Lighting Designers Excellence in Design Award (IALD) , Smithsonian Institute National Air Force and Space Museum Steven F. Udvar Hazy Center
2004 ARC Award, Excellence in Illumination System Engineering, Smithsonian Institute National Air Force and Space Museum Steven F. Udvar Hazy Center
2000 AIA Merit Award, Washington University School of Law, Project Architect, Hartman Cox Architects
2000 AIA Merit Award, 1909 K Street, Project Architect, AI/Boggs Architects
1999 AIA Merit Award, America On Line Headquarters, Project Architect, Design Architect, AI/Boggs Architects

PUBLICATIONS
2007 Pasajed Construccion, Materiales Volume 31, September 2007, pages 38-39 "Ladrillos de Cristal Reciclado,"
2007 Fresh Air, Published proceeding for the ACSA 95th Annual Meeting, "DDBC Residence One" Co-Authored
2006 Intersections; Design Education and Other Field of Inquiry. Published Proceedings for the 22nd National Conference on the beginning Design Student Ames, "phenomenological Negotiation: integrated Systems", Co-Authored,

2005 Metal Home Digest, "Materials and Strategies Team for Innovative Affordable House", Co-Authored September/October 2005 pages 38 & 39
2005 The Art of Architecture/The science of Architecture, Published Proceedings for the ACSA Technology Conference, "Building an Ethic in Practice" Co-Authored.
2004 Archipelagos: Outposts of the Americas/Enclaves Amidst Technology, Published proceeding for the ACSA Technology Conference, "What to Make of Material" Co-Authored.
2000 "On the Boards," Architectural Record Magazine (December, 2000): 60-61, Smithsonian Institution National Air and Space Museum Expansion Project, Senior Project Architect, Hellmuth, Obata + Kassabaum Architects
2000 *Architecture Magazine* (May, 2000): 138-145 "Power Outage," , Hotel Du Department de La Haute Garrone, Design Architect, Venturi, Scott-Brown Associates
1999 *INFORM Magazine* (Issue II, 1999): 12-17, "Breaking the Box@ AOL," , America On Line Headquarters, Vienna, VA Project Architect, Design Architect, AI/Boggs Architects
1998 *Architectural Record Magazine* (February, 1998): 58-67 , "VSBA Today," , Hotel Mielparque Resort Complex Design Architect, Venturi, Scott-Brown Associates

RESEARCH & CREATIVE ACTIVITIES
Competition, Martin Luther King Memorial (2000)
Competition, National World War II Memorial and Museum (1996)

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Chair, Distinguished Professor in Practice Faculty Search Committee (2006-2007)
University of Arizona Agriculture Sciences Red Rocks Research Facility Residential Prototype, (2006-present)
Drachman Design Build Coalition Residence One, (2004-2006)
Chair, Distinguished Professor in Practice Faculty Search Committee (2006-2007)
Juror, Imagination Cube Competition, Phoenix, AZ, (2004)
Community Design and Planning workshop, Sierra Vista, AZ (2003-2004)
Interface and Perspective: Portfolio Seminar,(2002-2004)
Juror, American Institute of Architects Honor Awards Jury for New Mexico Chapter,(2004)
Member, Academic Events Committee (2001-present)
Community Design Collaborative, Anacostia Gateway Project, Washington DC (1998-1999)
Community Design Collaborative, Anacostia Gateway Project, Washington D.C. 1995-2002

PROFESSIONAL MEMBERSHIPS
American Institute of Architects (1996 – present)

LICENSES & PRACTICE
American Institute of Architects (1996 – present)
ACSA Faculty Member
Architectural Registration, District of Columbia # 6191
Hellmuth, Obata + Kassabaum, Senior Associate (1997-2001)
United States Embassy, Nairobi Kenya, Senior Project Designer, Senior Project Architect
USAID Headquarters, Nairobi, Kenya, Senior Project Designer, Senior Project Architect
Smithsonian Institution Air and Space Museum, Dulles Center, Senior Project Architect
National Wildlife Federation Headquarters, Senior Project Architect
Bladensburg High School, Bladensburg, MD, Senior Project Designer, Senior Project Architect

MADELINE S. GRADILLAS
Adjunct Lecturer

CURRENT TEACHING
ARC 102 Foundation Studio II
ARC 402 Design Studio VI: Urban Form

EDUCATION
B. Arch., University of Arizona, Tucson AZ, 2003

ACADEMIC EXPERIENCE
Adjunct Lecturer, University of Arizona, Spring 2007-Spring 2008
Teaching Assistant. ARC 222: Building Technology II, University of Arizona, Spring 2003
Teaching Assistant, ARC 322: Building Technology IV, University of Arizona, Spring 2003
Teaching Assistant. ARC 221: Building Technology I, University of Arizona, Fall 2002
Teaching Assistant. ARC 321: Building Technology III, University of Arizona, Fall 2002

AWARDS AND HONORS
Ronald Gourley Capstone Award, Universtiy of Arizona, Spring 2003

PUBLICATIONS
N/A

LECTURES AND CONFERENCE PARTICIPATION
N/A

EXHIBITIONS
5 projects retained for the NAAB accreditation exhibit, University of Arizona, 2003

RESEARCH & CREATIVE ACTIVITIES
Participant in Ghost Research Lab 9, Upper Kingsburg, Nova Scotia, 2007

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Student Designer, Community Planning and Design Workshop, Drachman Institute, Tucson AZ, Summer 2002- Spring 2003
Student Designer/Builder for a straw bale construction, Habitat for Humanity, Tucson AZ, Fall 2002

PROFESSIONAL MEMBERSHIPS
N/A

LICENSES & PRACTICE
Architect In Training, Rick Joy Architects, Tucson AZ, January 2004-present
Intern Architect, Lizard Rock Designs, Tucson AZ May 2003 – January 2004
Various Independent and Pro-Bono projects since 2003

MARY C. HARDIN
Professor

CURRENT TEACHING
ARC 402 Design-Build Studio
ARC 451 Design-Build Studio
ARC 221 Materials and Methods I
ARC 322 Materials and Methods II

EDUCATION
Master of Architecture, University of Texas at Austin, 1983
Bachelor of Arts (With High Honors), Architecture Concentration, University of Texas at Austin, 1979

ACADEMIC EXPERIENCE
Professor, CALA, The University of Arizona, 2004-2008
Associate Professor, CAPLA, The University of Arizona, 1997-2004
Associate Professor, School of Architecture, Arizona State University, 1997
Assistant Professor of Architecture, School of Architecture, Arizona State University, 1989-96
Lecturer, School of Architecture, University of Texas at Austin, 1983-88

AWARDS AND HONORS
AIA Southern Arizona Chapter Home of the Year Award 2007, for DDBC Residence 1, Tucson, AZ. With John Folan.
AIA Award, Arizona Chapter, Distinguished Building Award 2006, for DDBC Residence 1, Tucson, AZ. With John Folan.
AIA Award, Southern Arizona Chapter, Homes of the Year 2003, for Elser Residence, Apache Junction, AZ. With Richard Eribes.
UA Academy Teaching Award, School of Architecture, 2001.
The Collaborative Practice Award, Association of Collegiate Schools of Architecture, awarded for best collaboration of professional practice, teaching, and community service, 2001.
Honorable Mention, Academic Category of The Design-Build Institute of America, "for demonstrated leadership in the advancement of best design-build practices and of design-build as the project delivery method", 2000.
Gila River Residence chosen as one of 75 projects published in Design Matters national affordable housing catalog, October 2000.
Gila River Design/Build project featured on cover and as cover story in the UofAOutreach magazine, published in the Spring of 2000.
Nominated and then named to Advisory Board of "Design Matters", a national affordable housing design competition and catalog.
Daryl B. Dobras Award for Excellence in the College of Architecture, for Design/Build studio teaching with Rocky Brittain, 1998.
Selected to attend Wakonese Conference on College Teaching, one of 20 from U of A, 1998, 1999.
Learn and Serve Faculty Scholar Award , Campus Compact/Corporation for National Service, Learn and Serve America: Higher Education, 1996.
AIA Education Honors Award, American Institute of Architects, 1991.

RECENT PUBLICATIONS
Article: "Casa de Adobe Y Acero" , Volume 30, Pasajes Construccion, pp. 04-09. Madrid, Spain, June 2007.
Publication and Project Review of DDBC Residence 1. With John Folan.
Article: "Ladrillos de Cristal Reciclado" Volume 31, Pasajes Construccion, pp. Madrid, Spain, September, 2007. This article was written by John Folan, translated to Spanish by Enrique de la Osa and is about the glass blocks fabricated for DDBC Residence 1, designed and constructed with John Folan.
Article: "One Design For All" Volume 65, Desert Living, pp. 70-72. City Publishing, LLC, Phoenix, AZ, September 2007.
Publication and Project Review of DDBC Residence 1. With John Folan.
Article: "AIA Homes of the Year: Earthly Ambience", Tucson Lifestyle Home & Garden, September – October 2007, pp. 98-99. Tucson, AZ. Publication of AIA Award winning DDBC Residence 1. With John Folan.
Article: arkitectur.aktuell, Gerald Rodler, editor. Vienna, Austria, forthcoming, March 2008. Publication of DDBC Residence 1. With John Folan.
Book Project: Earthen Architecture, Ron Rael, Princeton Press, forthcoming 2008. Publication of Elser Residence and DDBC Residence 1. With Richard Eribes and John Folan.
Book Project: Integrated Design in Contemporary Architecture , Kyle Moe, Princeton Press, forthcoming 2008. Publication of DDBC Residence 1. With John Folan.

Book, "From the Studio to the Streets: Service-Learning in Architecture and Planning", Chief editor and chapter author. Published by AAHE, ACSA, ACSP, HUD and Campus Compact through Stylus Publications, Sterling, VA. 2006.
Paper, "Research as Ethical Practice: Academic Goals Aligned with Community Needs", Proceedings of the Projetar2005 Conference, in Rio de Janeiro, Brazil, November 2005.
Paper, "Building An Ethic of Practice", Proceedings of the 2005 National ACSA Conference, in Chicago, Illinois, March 2005. With John Folan.
Paper, "Avenue of Ideas", Proceedings of the Passive Low Energy Architecture Conference 2004 in Eindhoven, Netherlands. Sept. 2004
Paper, "What to Make of Material", Proceedings of the 2004 National ACSA Conference, in Miami Florida, March 2004. With John Folan.
Paper, "Towards an Affordable Rammed Earth Dwelling", Proceedings of the Passive Low Energy Architecture Conference, 2003 in Santiago, Chile. Nov. 2003
Selected entry, "Gila Indian Community Residence" in Design Matters, national affordable housing competition catalog, October 2001.
Paper, " Very Thick Skins", Proceedings of the ACSA Technology Conference 2001 in Austin, Texas.
Paper, " Appropriate Technology: Cycling Between High and Low Tech in the Sonoran Desert", Proceedings of the International ACSA Meeting 2001 in Istanbul, Turkey.
Paper, "Transcultural Research in the Sonoran Desert", Proceedings of the International ACSA Meeting 2000 in Hong Kong, China.
Article, "Rammed Earth Constructions", published in the Arid Lands Journal #47, May, 2000, http://ag.arizona.edu/OALS/ALN/aln47/hardin.htm
Paper, "A Phylogeny of Formwork", Proceedings of the 2000 National ACSA Meeting, Los Angeles, 2000.

RECENT LECTURES AND CONFERENCE PARTICIPATION

Invited Lectures

"Desert Dwelling", TRAD 104: Sonora: A Description of Place in Arid America, taught by John Messina, CALA
CPOC Housing Symposium; "Civano Demonstration Grant" presentation.
Green Affordable Housing National Community Development Association Conference, San Francisco, CA, June, 2007. Panel speaker and presenter.
Governor's Conference on Affordable Housing, Scottsdale, AZ. September, 2007. Panel speaker and presenter.

RECENT RESEARCH & CREATIVE ACTIVITIES

Pima County GO Bonds Grant ($158,000). PI, 2007
Civano Demonstration Project Grant ($234,000). Co-PI, 2005
Kellogg Foundation UA/Community Partnership Grant ($22,000), PI, 1998
University of Arizona Faculty Small Grant ($4915), PI, 1998

RECENT ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

President; Drachman Design-Build Coalition, Inc.; 501©3 nonprofit incorporated to provide the design and construction of affordable housing for low- income citizens of Arizona, 2004-2008. Design and construction of residences for homeowners earning below 80% of the median area income for Tucson.
Panel moderator and organizer, National ACSA conference 2006. Design-Build session topic. With Patrick Tripeny. Salt Lake City, Utah.
Project Graduation; Amphitheater School District, Tucson, Az. Design and construction of graduation night stage sets. Canyon del Oro High School.

PROFESSIONAL MEMBERSHIPS

AIA National Membership ; current
AIA Southern Arizona Chapter Membership ; current
ACSA National Membership ; current

LICENSES & PRACTICE

Registration: Arizona, 2004, Texas, 1990
Architect: Hardin and Eribes Architects, Tucson, Arizona, 1997-2005;
Architect: Hardin and Eribes Architects, Tempe, Arizona, 1990-97;
Intern Architect: Kinney Kaler Sanders and Crews, Austin, Texas, 1984-88;

DARCI A HAZELBAKER
Adjunct Faculty Member

CURRENT TEACHING
Arch. 101 Foundation Studio

EDUCATION
B Arts in Architecture, University of New Mexico, 2001

ACADEMIC EXPERIENCE
Adjunct Faculty Member, College of Architecture + Landscape Architecture, University of Arizona, 2007-2008

AWARDS AND HONORS
Crego Block Design Award, 1996
Design Planning Assistance Center Studio Award, 2000
BPLW Design Award, 2001

EXHIBITIONS
Exhibitions of Design Awards in Galleries and AIA offices in Albuquerque, 1996-2000

RESEARCH & CREATIVE ACTIVITIES
Member of DOCOMOMO
Preliminary studies of Mid-Century modern residences + significant architectural landmarks, Albuquerque

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Pro-Bono work for the LAND/AN ART SITE, a non-profit, Albuquerque

LICENSES & PRACTICE
LEED Certified

Project Architect, Lizard Rock Designs, Tucson, Arizona, Present
Project Architect, Taylor Design + Build, Tucson, Arizona, 2006-2009
Designer, Dekker Perich Sabatini, Albuquerque, New Mexico 2004-2006
Intern, ASA Architects Studio, Albuquerque, New Mexico 2002-2004
Intern, Antoine Predock Architects, Albuquerque, New Mexico 2000-2001

LAURA H. HOLLENGREEN
Associate Professor

CURRENT TEACHING
ARC 231 History I: History of World Architecture, Ancient through Medieval (required)
ARC 232 History II: History of World Architecture, Renaissance to the Present (required)
ARC 471g/571g: History V: Museums: History, Theory, Design (elective)
ARC 471i/571i: History V: Urban Public Space: History, Theory, Design (elective)
ARC 471j/571j: History V: The Impact of World War I on Architecture and the Arts (elective)
ARC 498: Senior Capstone Preparation (required)

EDUCATION
Ph.D., University of California at Berkeley, 1998
M.A., University of California at Berkeley, 1989
A.B., Princeton University, 1985

ACADEMIC EXPERIENCE
Associate Professor, School of Architecture, University of Arizona, 2006-present
Adjunct Associate Professor, Division of Art History, School of Art, University of Arizona, 2004-present
Faculty Affiliate, Arizona Center for Jewish Studies, University of Arizona, 2006-present
Assistant Professor, School of Architecture, University of Arizona, 2000-06
Adjunct Lecturer, School of Architecture, University of Arizona,1995-2000, and Division of Art History, School of Art, 1999
Instructor, Department of History of Art, University of California at Berkeley, 1997
Lecturer, Department of the History of Art, University of California at Riverside, 1995

SELECTED AWARDS AND HONORS
National Endowment for the Humanities Summer Institute, Oxford Centre for Hebrew and Jewish Studies, 2006
Darryl B. Dobras Award for Excellence in the College of Architecture and Landscape Architecture, 2006
Service Award, Association of Collegiate Schools of Architecture, 2006
Travel Grant, Association of Women Faculty, University of Arizona, 2005
Foreign Travel Grant, University of Arizona, 2005
Foreign Travel Grant, University of Arizona, 2004
School of Architecture Teaching and Service Award, University of Arizona, 2003
College Art Association Travel Grant, 1999

PUBLICATIONS
"Kings and Confessors: Royal Intellect and Clerical Judgment on the Old Testament Portal of Chartres Cathedral." Submitted to *Speculum* [the journal of the Medieval Association of America].
Edited *Translatio, or the Transmission of Culture, Arizona Studies in the Middle Ages and the Renaissance* 13. Turnhout: Brepols, forthcoming.
"The Politics and Poetics of Possession: Saint Louis, the Jews, and Old Testament Violence," in *Between the Picture and the Word*, ed. Colum Hourihane, pp. 51-71. University Park, Pennsylvania: Pennsylvania State University Press, 2005.
Cross-Cultural Vernacular Landscapes of Southern Arizona. Co-edited with R. Brooks Jeffery. Tucson: Vernacular Architecture Forum, 2005.
"Mind and Body at Work in the World." Co-authored with Christopher Domin. In *Finishing School: Inquiries into the Completion of an Architectural Education, Proceedings of the ACSA Southeast Regional Meeting 2003,* ed. Ron Dulaney et al., pp. 100-06. Tampa: School of Architecture and Community Design, University of South Florida, 2004.
"From Medieval Sacred Place to Modern Secular Space: Changing Perspectives on the Cathedral and Town of Chartres." In *Architecture as Experience: Radical Change in Spatial Practice*, ed. Andrew Ballantyne and Dana Arnold, pp. 81-108. London and New York: Routledge, 2004.
"Illustrating Architecture." *Visual Resources* 17 (2001): 95-126.

SELECTED LECTURES AND CONFERENCE PAPERS DELIVERED
"The Senses in Spatial Extension/Space in Sensual Intension: The Case of Jewish-Christian Interaction in Northern Europe." 43rd International Congress on Medieval Studies, Western Michigan University, 2008.
"Presence, Absence, and Aura: Possibilities of the Empty Vitrine and Other Display Strategies in the Wake of Repatriation Legislation." 34th Annual Conference, Association of Art Historians, London, 2008.
"Medieval Jewish Space, Real and Represented." 14th International Medieval Congress, University of Leeds, 2007.

"Revisiting the Patronage and Production of the Morgan Old Testament Picture Book." 41st International Congress on Medieval Studies, Western Michigan University, 2006.
"False Fathers, True Sons: The Succession of Samuel to Eli and David to Saul in the Morgan Picture Book." 2005 Convivium Conference, Siena College, 2005.
"Discerning Textual Interpretation in the Absence of Text: The Morgan Old Testament Picture Book as Witness to Thirteenth-Century Exegesis and Its Uses." International colloquium, Brigham Young University/Université Catholique de l'Ouest, 2005.
"Postulating and Contextualizing a Viewer for the Morgan Old Testament: Viewing Violence in Image and Reality." Invited lecture, Reed College, 2005.
"Penitential Sequences in Liturgy and Imagery: The Spaces and Stained Glass of Chartres Cathedral." 11th International Medieval Congress, University of Leeds, 2004.
"The Politics and Poetics of Inheritance and Disinheritance: St. Louis, the Jews, and the Shaping of Old Testament Narrative in the Morgan Picture Book." Invited lecture, Princeton University, 2004.
"Intimate Images of Violence, from Battlefield to Bedroom: Artistic Transmission and Scholarly Scruple." Annual Conference, Medieval Association of the Pacific, Portland State University, 2003.
"Changes in French Old Testament Imagery of the Thirteenth Century." Invited lecture, Ohio State University, 2002.
"From Medieval Sacred Place to Modern Secular Space: Changing Perspectives on the Cathedral and Town of Chartres." 55th Annual Meeting, Society of Architectural Historians, 2002.
"Gothic Visuality: Five Points towards a Definition." 35th International Congress on Medieval Studies, Western Michigan University. 2000.
"Emergency Exits." Invited lecture, University of Arizona, 2000.
"Time, Space, and Society at the Margins of the Gothic Facade." Annual Meeting, Medieval Academy of America, 2000.
"Cathedral and Cloister, Imagery and Audiences: The Case of Chartres." 88th Annual Conference, College Art Association, 2000.
"The Consolation of History? Time, Temptation, and Travail in Old Testament Narratives around 1200." Invited lecture, University of Iowa and University of California at Santa Cruz, 1997.
"Rethinking the Cathedral as *Gesamtkunstwerk*: Reflections on Medieval Public Monuments with Special Attention to Chartres." Invited lecture, Boston University, 1996.
"If on a winter's day a traveler, outside the town of Chartres ..." Invited lecture, Harvard University, 1996.

SELECTED CONFERENCE SESSIONS ORGANIZED AND CHAIRED

"Medieval Spatiality." 97th Annual Conference, College Art Association, 2009.
"Input: Technology/Output: Architecture. Technology and Society in Architecture of the Past and Present I-II." 94th Annual Meeting, ACSA, 2006.
"Like Father, Like Son? Visual and Textual Strategies of Succession in the Middle Ages I-II." 39th International Congress on Medieval Studies, Western Michigan University, 2004.
"The Politics of Purity: Architecture and the Assimilationist Agenda." 92nd Annual Meeting, ACSA, 2004.
"Visual Rhetorics of Judgment." Annual Meeting, Medieval Academy of America, 2001.
"Medieval Narrative Revisited." 89th Annual Conference, College Art Association, 2001.
"The City of God and the City of Man: Medieval Urban Churches and Their Uses." Annual Meeting, Society of Architectural Historians, 2000.

ACADEMIC, PROFESSIONAL, AND PUBLIC SERVICE

Coordinator, History/Theory Curriculum Sequence (2000-07)
Chair, Committee for NAAB Accreditation Preparation (Spring 2002-Fall 2003)
Elected Member, Committee for Review of the Director (2003-04)
Elected Member, Faculty Status Committee (2006-09)
Elected Member, Graduate Executive Committee (2002-04)
Chair, Capstone (Thesis) Coordination Committee (2006-07), and Member (2003-07)
Chair, Curriculum and Standards Committee (2006-07), and Elected Member (2000-07)
Elected Chair, General Assembly [of the Faculty and Staff] (2005-07)
Elected Representative, Dean's Ad-Hoc Committee on "Key Personnel" (Fall 2004)
Elected Chair, UA Medieval, Renaissance, and Reformation Committee (2006-09)
CAPLA Faculty Representative, University-Wide General Education Committee (2000-03)
CALA Faculty Representative, Graduate Council (2003-04)
Elected Secretary, Association for Women Faculty (2006-07), and CALA Liaison (2004-07)
UA Faculty Affiliate, Arizona Center for Medieval and Renaissance Studies, ASU (2000-present)
International Center of Medieval Art (ICMA), Elected Chair, Nominating Committee (2002-03), and Member (2001-02); Editor, *Newsletter* (2003-05)
Medieval Association of the Pacific (MAP), Elected Councilor (2004-07)

R. BROOKS JEFFERY
Coordinator, Preservation Studies (with continuing status)
Associate Dean

CURRENT TEACHING
ARC/LAR 4/597a - Research Methods (curriculum author)
ARC/LAR 4/571f - Introduction to the Conservation of Cultural Resources
ARC/LAR 4/597j - Documentation and Interpretation of the Historic Built Environment (curriculum author)
ARC 900/910 - Thesis Research (advisor to average 4 graduate students per year)
ARC 452 - Capstone Design Project (advisor to average 2-3 undergraduate students per year)

EDUCATION
1992 Masters of Information Science. The University of Arizona.
1983 Bachelor of Architecture. The University of Arizona.

ACADEMIC EXPERIENCE
Associate Dean, CALA, 2004-present.
Coordinator, Preservation Studies, CALA, University of Arizona, 2000-present.
Associate Curator, CALA, University of Arizona, 1999-2000
Assistant Curator, College of Architecture, The University of Arizona, 1990-99.
Acting Head Librarian, College of Architecture, The University of Arizona, 1989-90.
Library Assistant, College of Architecture, The University of Arizona, 1988-89.

AWARDS AND HONORS (2002-current)
Alene Dunlap Smith and Paul C. Smith Award from the Tucson-Pima County Historical Commission for the "high level of dedication and long-term commitment toward historic preservation in our community". This is Tucson's highest preservation award, 2007.
Dobras Award for distinguished achievement and service to CALA, 2007.
Excellence in Resource Stewardship Award, National Park Service, in recognition of quality work in the creation of preservation design and maintenance guidelines by Preservation Studies students for Petrified Forest National Monument, Arizona with Drew Gorski and Michael Lovato, 2006.
Historic Preservation Certificate of Recognition, Tucson-Pima County Historical Commission for the efforts in creating the *Guide to Tucson Architecture* with Anne M. Nequette, 2002.
Historic Preservation Certificate of Recognition, Tucson-Pima County Historical Commission for efforts of Preservation Studies service-learning course to create a historic context for Downtown Tucson and 10 National Register nominations that enabled the buildings to be eligible for federal rehabilitation tax credits and contributing to the redevelopment of downtown Tucson within the larger Rio Nuevo master plan, 2002.

PUBLICATIONS (2002-current)
Cross-Cultural Vernacular Landscapes of Southern Arizona (co-edited with Laura Hollengreen) Vernacular Architecture Forum, 2005, 256pp.
Book review - Presidio, Mission and Pueblo: Spanish Architecture and Urbanism in the United States by Robert Early in *Preservation Magazine*, v. 56, no. 3 (May/June 2004), pp. 57, 80.
Book review - Facing Southwest: The Life and Houses of John Gaw Meem by Chris Wilson in *New Mexico Historical Review*, v. 78, no. 4 (Fall 2003), pp. 483-485.
"From Azulejos to Zaguans: The Islamic Legacy in the Built Environment of Hispano-America" *Journal of the Southwest*, vol. 45, nos. 1 & 2 (Spring/Summer 2003), pp. 289-327.
A Guide to Tucson Architecture. Tucson: The University of Arizona Press, 2002, 347pp. (with Annie Nequette)

LECTURES AND CONFERENCE PRESENTATIONS (2002-current)
"Intellectual Spaces and the Role Academic Libraries in the 21st Century" part of *Speaking Volumes* speaker series in honor of the 50th anniversary of the Arizona State Museum Library, University of Arizona, 2008.
"A Case Study in Campus Preservation Planning: The University of Arizona" Society of Campus and University Planners (SCUP) conference, Long Beach, CA, 2006.
"Partners in Preservation: Service Learning Curricula in an Era of Decreased Funding" Arizona Planning Association conference, Prescott Arizona, 2005.
"Cultural Landscapes and Preservation in the American Southwest: Definitions and Critical Issues" Instituto de Estudios Paisaje, Pontifica Universidad Catolica, Santiago Chile (delivered in Spanish), 2003.

"Convento or Invento: Issues of Authenticity and Heritage Tourism in Tucson Arizona" International Colloquium for Vernacular, Hispanic, Historical, American and Folklore Studies (commonly referred to as the Congress of the Americas) in Puebla Mexico, 2003.
"The Islamic Legacy in the Built Environment of Hispano-America" Invited as Smith Scholar sponsored by Center for Latin American Studies Center and Center for Middle Eastern Studies, University of Arizona, 2003.
"Urban Conservation in Tucson" in symposium *Living With the Past: Urban Conservation: Cairo, Havana and Tucson*. Center for Middle Eastern Studies, University of Arizona, 2002.
"Historic Preservation: The Integration of Past and Future" *Congress Street Reborn: A Downtown Revitalization Workshop*, City of Tucson, 2002.

RESEARCH AND CREATIVE ACTIVITIES (2002-current)
2007 - P.I. "Historic Structures Report, Hermits Rest, Grand Canyon National Park", National Park Service, $61,400.
2007 - P.I. "Historic Structures Report, Superintendent's Building, Grand Canyon National Park", NPS, $61,400.
2006 - P.I. "Historic Structures Reports, Grand Canyon Village, Grand Canyon National Park", NPS, $80,500.
2006 - P.I. "Technical Assistance Project Support, Inter-Mountain Region", National Park Service, $30,000.
2006 - P.I. "Historic Structures Report, Dos Lomitas Ranch, Organ Pipe Cactus National Monument", NPS, $10,000.
2005 - P.I. "Historic Structures Report, Ranger Cabin, Walnut Canyon National Park", National Park Service, $32,700.
2005 - P.I. "Missions Initiative Project, Tumacacori National Monument", National Park Service, $52,000.
2005 - P.I. "Historic Structures Report, Head Homestead, El Malpais National Monument" National Park Service, $15,155.
2005 - Co-P.I. "Cultural Landscape Report, Bryce Canyon National Park", NPS, $100,000 (with Lauri Macmillan Johnson).
2005 - P.I. "Administrative History of Chiricahua National Monument", National Park Service, $30,000.
2004 - Co-P.I. "Preservation Master Plan for University of Arizona Campus", Getty Campus Heritage Initiative, $150,000.
2004 - P.I. "Thematic Context Study, Modern Architecture Preservation Project (MAPP) – Tucson" Southwestern Foundation for Historical Preservation and Education, $5,000.
2004 - P.I. "Vernacular Architecture Forum (VAF) Field Guide Publication Support" Southwestern Foundation for Historical Preservation and Education, $4,300.
2004 - P.I. "Vernacular Architecture Forum (VAF) Field Guide Publication Support" Robidoux Foundation, $15,000.
2004 - P.I. "Maintenance Guide for the Treatment of Historic Properties, Petrified Forest National Park" NPS, $50,155.
2004 - P.I. "Historic Structures Report – Utah Parks Company Service Station, Bryce Canyon National Park" NPS, $25,000.
2004 - P.I. "Historic Structures Report – Bates Well Ranch, Organ Pipe National Park" National Park Service, $14,500.
2003 - P.I. "Historic Structures Report, Douglas YMCA" City of Douglas, $3,000.
2003 - P.I. "Planning and Design of Ruins Shelter at Tumacacori National Historic Park" National Park Service, $16,000.
2003 - P.I. "National Register nomination: Chiracahua National Monument" National Park Service, $1000.
2002 - P.I. "Smith House Rehabilitation Plan" National Park Service, $29,000.
2002 - P.I. "Mission Parks Initiative Strategic Plan" National Park Service, $6,800.
2002 - P.I. "Evergreen Cemetery (Bisbee Az) Historic Resource Survey and National Register Nomination" Arizona SHPO Certified Local Government Pass-through grant, $1,600.

ACADEMIC, PROFESSIONAL AND PUBLIC SERVICE (2002-current)
Accreditation Team Member, Landscape Architecture Accreditation Board (LAAB), site visit and report preparation, Florida International University, 2006.
Executive Board Member, Vernacular Architecture Forum, 2004-06
Board Member and Faculty, Community Design Academy, Sonoran Institute in conjunction with the City of Tucson, 2002-
Member, Architecture Graduate Executive Committee, 2000-
Member, Historic Sites Review Committee, Arizona State Historic Preservation Office, Arizona State Parks, 1999-
Member, University of Arizona Historic Preservation Advisory Committee, 1998-.
Community Lecturer, various topics related to local architecture.
Author, numerous articles in *Tucson Lifestyle* and *Tucson Home* local magazines including regular column, "Architects of Influence".

PROFESSIONAL MEMBERSHIPS
American Institute of Architects, Associate Member
American Society of Landscape Architects, Associate Member
National Trust for Historic Preservation
US/ICOMOS (International Council on Monuments and Sites)
Vernacular Architecture Forum

Clayton R. Joyce
Assistant Visiting Professor

CURRENT TEACHING
Arch. 459 Ethics and Practice

EDUCATION
B. Arch., University of Washington, Seattle, 1960

ACADEMIC EXPERIENCE
Adjunct Lecturer, School of Architecture, University of Washington, 1973-1974
Adjunct Lecturer, School of Architecture, University of Arizona, 2005
Adjunct Lecturer, School of Architecture, University of Arizona, 2007
Visiting Assistant Professor, University of Arizona, 2008-2009

AWARDS AND HONORS
Honor Award AIA for Lake Washington School District Administration Building, 1984
Commendation Award AIA for University Of Washington Student Union Building Addition & Renovation, 1981
Commendation for Service AIA, Seattle Chapter AIA, 1979
Honor Award AIA for Manastash Ridge Observatory, 1975

PUBLICATIONS
Integrating Ergonomics and Architecture Design in VDU Workplaces. Proceedings of the Fourth International Scientific Conference. Work with Display Units. University of Milan, 1994

EXHIBITIONS
Numerous exhibitions of architecture at awards programs of the AIA , 1975-1994

RESEARCH & CREATIVE ACTIVITIES
Application of Ergonomic principles to medical research laboratories and Medical clinic work places, 1988-

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Dean's Advisory Committee, 2007-present
National Advisory Board, University of Arizona Museum of Art, 2006-present
Public Art Advisory Committee, University Of Arizona, 2001-present
Accreditation Committee, School of Architecture, 2004
Board of Trustees, Co-Chair, Long Range Planning Committee, Chair, Building Committee, Tucson Museum of Art, 2000-2004
Board of Trustees, Northwest Chamber Orchestra, 1979-1989, President 1981-1983, 1986-1987
Founding Member Seattle Architectural Foundation, President 1987
President, Seattle Chapter of Architects, 1978-1979, Various Committee Chairs 1977-1986
AIA Washington State Council 1980

PROFESSIONAL MEMBERSHIPS
American Institute of Architects, Emeritus

LICENSES & PRACTICE
Architect: Arizona
Principal, Clayton R. Joyce Architects, Tucson Arizona, 2000-present
Director of Architecture, HNTB, Bellevue, Washington, 1994-1998
Principal, Clayton R. Joyce Architects, Seattle, Washington, 1980-1994
Principal, Joyce Nordfors Architects, Seattle Washington1978-1980
Principal, Joyce Copland Vaughan and Nordfors, Seattle, Washington, 1970-1978
Principal, Joyce Copland Vaughan, Seattle Washington,1966-1970

MICHAEL KOTHKE
Adjunct Lecturer

CURRENT TEACHING
Arc101 and Arc102: Foundation Studio

EDUCATION
M. Arch., Dalhousie University, Halifax, Nova Scotia 1993
B.E.D.S., Dalhousie University, Halifax, Nova Scotia 1990
B.E.S., University of Manitoba, Winnipeg, Manitoba 1990

ACADEMIC EXPERIENCE
Adjunct Lecturer, College of Architecture and Landscape Architecture, School of Architecture, University of Arizona, 2006-2008
Visiting Instructor, Studio 201, College of Environmental Design, Department of Architecture, UC Berkeley, 2002
Thesis Workshop Instructor, Faculty of Architecture, Dalhousie University, 1999-2004
Guest Critic and Thesis Advisor, School of Architecture and Landscape Architecture, University of British Columbia, 1995-1998

PUBLICATIONS
Ventana House, *GA Houses 104*, 2008
Patkau Architects, New York: The Monacelli Press, Inc., 2006
A Modern Education: San Francisco Museum of Modern Art Koret Center, *Contract Magazine, February 2004*
Forest Retreat: West-Vancouver Residence, *The Architectural Review, June 2000*
Tall Story: West-Vancouver Residence, *Metropolitan Home, March/April 2000*
TNRD Civic Building, *Canadian Architect, February 2000*
1998 Awards of Excellence: TNRD Civic Building, *Canadian Architect, December 1998*
Patkau Architects, *Gustavo Gili, ed., Barcelona: GG, 1994*
Strawberry Vale Elementary School, *Domus, January 1997*
1996 Awards of Excellence: Lignum Forestry Center, *Canadian Architect, December 1996*
Peter Cardew: Ordinary Buildings, *Elizabeth Shotten, ed., Vancouver: Emily Carr Institute of Art and Design, 1996*
1995 Progressive Architecture Awards: Strawberry Vale Elementary School, *Progressive Architecture, 1995*
Patkau Architects: Selected Projects 1983-1993, *Brian Carter, ed., Halifax: TUNS Press, Documents in Canadian Architecture, 1994*

EXHIBITIONS
Peter Cardew: Ordinary Buildings, Emily Carr Institute of Art and Design, Vancouver, British Columbia 1996

PRACTICE
Design Director, Diem Developments, LLC / Veradus Partners, LLC, Tucson, AZ, 2007 - Present
Manager of Planning + Architecture, WaterSTONE Homes, LLC, Tucson, AZ, 2006 - 2007
Architectural Operations Manager, Alexandra Hayes Architect, Tucson, AZ, 2005 - 2006
Designer and Project Manager, Rick Joy Architects, Tucson, AZ, 2003 - 2005
Designer and Project Manager, Skidmore Owings and Merrill, San Francisco, CA, 2002 - 2003
Designer and Project Manager, Leddy Maytum Stacy Architects, San Francisco, CA, 1998 - 2002
Designer and Project Manager, Peter Cardew Architects, Vancouver, BC 1994 - 1998
Production Team Member, Patkau Architects, Vancouver, BC 1993 - 1994
Production Team Member, Henriquez and Partners, Vancouver, BC 1990 - 1991
Production Team Member, SmithCarter Partners, Winnipeg, MB 1989 - 1990
Production Team Member, Calgary Board of Education, Architectural Services, 1988

ÁLVARO MALO
Professor of Architecture, Full Time, Tenured

CURRENT TEACHING
ARC 451/601 – Design Studio VII, Emerging Material Technologies
ARC 452 – Design Studio VIII, Capstone
ARC 561i – Materials: properties and tests
ARC 561j – Materials: Modeling

EDUCATION
M.Arch., University of Pennsylvania, 1970
Design Diploma, Bouwcentrum, Rotterdam, Holland, 1969
Architect's Diploma, Universidad de Cuenca, Ecuador, 1967

ACADEMIC EXPERIENCE
Professor, School of Architecture, Director Emerging Material Technologies, University of Arizona, 2006-date
Director and Professor, School of Architecture, University of Arizona, 1998-2006
Director and Associate Professor, Miami Architecture Research Center, University of Florida, 1994-1998
Associate Professor, Architecture, GSFA/University of Pennsylvania, 1990-1994
Associate Professor, Architecture, GSAP/Columbia University, 1986-1990
Assistant Professor, Architecture, SUNY /Buffalo, 1979-1986
Director and Assistant Professor, Center Community Design, University of Colorado, 1976-1979
Professor, Architecture, Universidad de Cuenca, Ecuador, 1971-1974

AWARDS AND HONORS
Association of Collegiate Schools of Architecture, Service Award, 2003
Distinguished Public Service Decoration, City of Miami Beach, 1998
Fulbright Scholarship, 1969-1971
University Scholarship, University of Pennsylvania, Philadelphia, 1969-1971
Netherlands Government Post-Graduate Fellowship, 1969
Decoration, Casa de la Cultura, best graduating architecture student, Universidad de Cuenca, Ecuador, 1967
Sponsored Architectural travel in the United States of America, US Department of State, 1967

PUBLICATIONS
"Tucson ~ Zaragoza," *Casa Tucson*, Madrid: TF Editores, 2007
"Casa Tucson, en Zaragoza, España", *ARQUITECTURA COAM 340*, Colegio de Arquitectos Madrid, Madrid: Ex-Profeso, 2005
"El arte de vivir," *Tasavallan Presidentti: Ángel Fernández Alba,* Madrid, AFA Arquitectos, 2005
"A desert land ethic: aesthetic research," *ARQ 57 - Zonas áridas / Arid zones*, Santiago, Chile: Ediciones ARQ: Pontificia Universidad Católica, August 2004.
"La Tectónica de las Formas," *Louis I. Kahn*, Barcelona: Ediciones del Serbal, Estudios Críticos, 1994
"El Sentido de la Obra: Louis Kahn," *Trama*, Quito, Editorial Fraga, 1994
Architecture Review, Philadelphia: GSFA/U. of Pennsylvania, 1990-1994
"The Hand: Organ of Knowledge", *On Making*, New York: Rizzoli / Pratt, 1992
ABSTRACT, New York: GSAP/Columbia University, 1988-1990

LECTURES AND CONFERENCE PARTICIPATION
"Heuristics," College of Design, North Carolina State University, Raleigh, NC, 2008
"A desert land ethic: aesthetic research," Hawaii International Conference on Arts and Humanities, Honolulu, Hawaii, 2007
"The Role of Higher Education in Transforming Communities," Urban Design in Arid Zones, 2nd International Symposium, Tucson, AZ, 2005
"A desert land ethic: longitude ~ latitude," Escuela Técnica Superior de Arquitectura de Madrid (ETSAM), Universidad Politécnica de Madrid, Spain, 2004
"A desert land ethic: aesthetic research," International Design Symposium on "Urban Design in Arid Zones", Pontificia Universidad Católica, Santiago, Chile, 2003
"Matter and Memory," Proceedings ACSA 2003 International Conference, Helsinki, Finland, 2003
"Intermodalities of Miami: Public Transportation Projects," ACSA 2000 International Conference, Hong Kong, China, 2000

"Louis I. Kahn: Formwork in the Kimbell Art Museum", Sarasota Design Conference, Longboat Key, FL, 1998
"Intermodalities of Miami: Water Land, Air...," Technical Seminar: Interactions Between Airport and Town, XIX Congress International Union of Architects, Barcelona, Spain,1996
"The Miami River: A Working River," CSLA Congress '95, Winnipeg, Canada, 1995
"Through the Looking Glass," 83rd ACSA Annual Meeting, Seattle, WA, 1995
"Models: Instrumental & Iconic," International Research Symposium, Carleton University, Ottawa, Canada, 1992

EXHIBITIONS

"Faculty Work Exhibition", School Of Architecture, The University of Arizona, Tucson, AZ, 2003
"Imaging Miami", Art Gallery, University of Miami, Coral Gables, Florida (invited 10 exhibitors), 1998
"Intermodalities of Miami: Water, Land, Air: Intermodal Projects", XIX Congress International Union of Architects, UIA96 Barcelona, Spain (invited 12 exhibitors), 1996
"The Legacy of the Philadelphia School", AIA/GSFA, Meyerson Hall, University of Pennsylvania, Philadelphia, Pennsylvania (invited and refereed), 1991
"Built Work", Avery Hall, GSAP Columbia University, New York City, New York (invited 4 exhibitors), 1987
"The Legacy of the Masters – Louis I. Kahn", AIA Gallery, New York City, New York (invited, 10 exhibitors), 1987
"Scaffoldings", ACSA Diamond Jubilee Conference, NJ Institute of Technology, Newark, NJ (refereed 3 exhibitors), 1986

RESEARCH & CREATIVE ACTIVITIES

First International Design Symposium on Urban Design in Arid Zones," $ 5,000; Office of the Vice Provost for Research, U. of Arizona. Co-PI's: Á. Malo and I. San Martin; Tucson, AZ, 2003
"Rio Nuevo MFD: Graduate/Married Student Urban Housing," $21,048.22; City of Tucson/Rio Nuevo MFD. Co-PI's: Á. Malo, I. San Martin; Tucson, AZ, 2001
"Rio Nuevo MFD: Sustainable Urban Design – Outdoor Space Analysis," $18,195.00; funding, City of Tucson/Rio Nuevo MFD. Co-PI's: Á. Malo, F. Matter; Tucson, AZ, 2001
"Rio Nuevo MFD: Urban Design Proposals," $11,582; City of Tucson/Rio Nuevo MFD. Co-PI's: Á. Malo and R. Hershberger; Tucson, AZ, 2000
"Collins Avenue/Indian Creek Corridor," $15,000; City of Miami Beach. PI: Á. Malo; Miami, FL, 1998
"Miami Intermodal Center (MIC): Hi-Speed Rail Terminal," $71,650; FDOT District VI. PI: Á. Malo; Miami, FL, 1997
"Bayside Arena Station, E-W S.R. 836 Multimodal Corridor," $71,650; FDOT District VI, PI: Á. Malo; Miami, FL, 1997
"27th Avenue Station of the E-W S.R. 836 Multimodal Corridor," $67,450; FDOT District VI. PI: Á. Malo; Miami, FL, 1997
"Miami Intermodal Center / Miami International Airport," $25,830.00; FDOT District VI. PI: Á. Malo; Miami, FL, 1996
"East-West S.R.836 Multimodal Corridor," $34,755; FDOT District VI. PI: Á. Malo; Miami, Florida, 1996

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

Fulbright Senior Specialists Program, Referee, 2007.
The MacArthur Fellows Program, Reviewer, 2002, 2004; Nominator, 2006.
ACSA 2002 International Conference, Havana, Cuba, June 2002, Topic Co-Chair: Urban and Regional Planning, 2002.
National Endowment for the Humanities, Peer Reviewer, 1999, 2001.
ACSA 89th Annual Meeting, Baltimore, MD, March 2001, Technology Session Moderator, 2001.
Civitas Sonoran, Board of Directors, Tucson, AZ, 1998-2003.
Transportation Aesthetics Review Committee, Metropolitan Planning Organization, Dade County, FL, 1995-1998.
Design Guidelines Task Force, Miami Beach Planning Commission, Miami Beach, FL, Technical Advisor, 1995-1998.
AIA Design Awards / Miami Chapter, Miami, FL, Juror, 1994.
National Council Architectural Registration Boards, Professional Exam Grader, Boston, MA, 1986.

LICENSES & PRACTICE

Architect: Colorado (inactive), New York, NCARB, Ecuador.
Apartment building, 9 units, Cuenca, Ecuador. 1993.
Keppler Farms Inn, addition and renovation, Medina, N, 1989.
Moloney House, Craneridge, NY, 1989.
S.B. Whistler & Sons, industrial conversion, Akron, NY, 1989.
Circulo Infantil Playground, Denver, CO, 1979.
Shayne Beach House, Punta Blanca, Ecuador, 1975.
Escuela de Arquitectura, Universidad de Cuenca, Cuenca, Ecuador, 1975.
High-rise apartments, Quito, Ecuador, 1973.

PETER McBRIDE
Architecture Research Coordinator

CURRENT TEACHING
Arch. 402 Design Studio VI

EDUCATION
B. Arch., University of Arizona, Tucson, 2006
A.A.S., Eastern Arizona College, 2001

ACADEMIC EXPERIENCE
Teaching Assistant, School of Architecture, University of Arizona, 2004-2006

AWARDS AND HONORS
Seven design awards and scholarships, University of Arizona, 2001-2006

RESEARCH & CREATIVE ACTIVITIES
Affordable housing through sustainable design, 2006-

PROFESSIONAL MEMBERSHIPS
LEED Accredited Professional – 2007; USGBC.

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Design and construction of a sustainable housing prototype for Habitat for Humanity – Tucson, 2005-2006.

PRACTICE
Architecture Research Coordinator, Roy P. Drachman Institute, University of Arizona, 2008-current, 2005-06.
Project Designer, Runberg Architecture Group, PLLC, Seattle, Washington, 2006-2008
Project Designer, ArchWest, LLC, Tucson, Arizona, 2001-2005
Building types: Commercial, Industrial, Residential, Mixed Use, Historic Preservation, Adaptive Re-use

R. LARRY MEDLIN
Professor, Full-Time

CURRENT TEACHING
Design Studio (Third, fourth, fifth and graduate years)
Architecture Electives: Solar Utilization in the Built Environment, Lightweight Construction Techniques

EDUCATION
Post-graduate studies, Univ. of Stuttgart, Germany, 1965-67
M. Architecture, Univ. of California Berkeley, 1966
B. Architecture, Cum Laude, Univ. of Florida, 1962

ACADEMIC EXPERIENCE
Professor, School of Architecture, University of Arizona, 1981-present, Director, School of Architecture, University of Arizona, Fall 2006-Spring 2008,Acting Director, School of Architecture, Fall 2004
Associate Professor, School of Architecture, University of Arizona, 1976-1981
Assistant Professor, School of Architecture, University of Arizona, 1973-1976
Assistant Professor & Director, Lightweight Construction Center, Washington Univ., St. Louis 1968-1973
Visiting Professor, Washington Univ.,and Southern Illinois Univ. 1967-1968
Instructor/Research Associate, Univ. of Stuttgart, Germany, 1965-1967
Instructor, Univ. of Miami, 1963-1964

AWARDS AND HONORS
CALA Darryl B. Dobras Award for Excellence in Teaching and Service, Spring 2006.
Sonoran Institute's Building from the Best awards—Green Building Award, Edith Ball Adaptive Recreation Center, Burns Wald-Hopkins Architects, Larry Medlin, Tension Structure Consultant, 2006.
Department of Energy "Sun Wall" Design Competition, First Place Student/Academic Entries, Collaboration with Sam Batchelor and Marc Kelley, Yale University and James Batchelor, Arrowstreet, Cambridge, MA, 2000.
German Pavilion Expo '67 Montreal – Frei Otto, Rolf Gutbrod, Herman Kiess, Herman Kendel and Larry Medlin, Architects, selected by editors of Fabric Architecture for a series of articles on "the Twentieth Century's Best", 1999.

PUBLICATIONS
"Fabric Structures—Environmentally Appropriate Uses of Energy and Materials", presented Oct. 26, 2005 at the Industrial Fabrics Association International-Fabric structures 2005 in San Antonio. Paper published in the Conference Proceedings.
"Sustainable Design Utilization of Fabric Structures in Arid Environments". Article published in Fabric Architecture" January/February 2004, p. 24-29, based on "Utilization of Fabric Structures in Arid Environments," presented September 30, 2003 at the Industrial Fabrics Association International – Fabric Structures 2003 in Las Vegas, Paper published in the Conference Proceedings.
"Appropriate technology for measuring night blindness: the Night Vision Threshold Test and a portable dark room," Douglas Taren, Larry Medlin,and Brent Campbell,University of Arizona, Tucson, Arizona, USA; Dr. Kamal and Dr. Narayani Shrestha from Kathmandu, Nepal; Sight and Life Newsletter , Basel, Switzerland,2001.
"Fabric Structures and the Environment", Fabric Architecture, May-June, 2000.
"A Master Builder – Larry Medlin reviews Frei Otto's 1972 "Munich Olympic Pavilion", Fabric Architecture, July-August, 1999.
"A Master's Legacy – Evolution of the West German Pavilion at Expo '67 in Montreal", Fabric Architecture, March-April, 1999.

LECTURES AND CONFERENCE PARTICIPATION
"The Urban Solar Oasis Concept" paper included in proceedings and presented in a Workshop on Intelligent Systems at the International Union of Architects – XXI World Congress of Architecture in Berlin on Wednesday, July 24, 2002.
"Fabric Structures and the Environment," Spring 2001 Lecture Series, School of Architecture and Design, Philadelphia University, June 15, 2001.
"Passive Solar Design in the Sonoran Desert and An Introduction of Civano, the Tucson Solar Village," Lecture and Chapter in Report – Sustainable African Energy Institute, Co-sponsored by the U.S. Department of Energy and the University of Arizona Oct. 1-7,2000, Tucson, Amadou Thiam, Editor, 2001, p. 300-314.

"Thoughts and Ideas for Integrating Sustainability into Architectural Curriculums," remarks in proceedings of the Global Possibilities Second Annual Symposium for a Solar Future – Re-thinking Design Curriculum; Integrating Solar Energy for a Sustainable Future, New York, Oct. 22-23, 1998.

EXHIBITIONS

Included in Exhibition at Technical University of Munich Architecture Museum on for Frei Otto's 80th birthday,May, 2005.

XX1 World Congress of Architecture Exhibition in Berlin, July 2002 at the International Congress Centre Berlin two posters on "The Urban Solar Oasis Concept" and "The Rio Nuevo Design Studio—Tucson, Arizona."

Grand Canyon West Visitor Facility/Hualapai Nation, Arizona, Richard Fe Tom, Architect, Larry Medlin, Tension Structure Design, "Sonoran Design of its Time and Place," By Civitas Sonoran at the Tucson Museum of Art, March, 2000.

Tucson and Phoenix Solar Oasis Projects included in "Sonoran Design of its Time and Place," Tucson Museum of Art, 1999.

Grand Canyon West Visitor Faculty included in "Abject Lands: Personal Horizons" by UA and the University of Western Australia at UWA Perth, 1997 and at the Joseph Gross Gallery UA, 1998.

RESEARCH & CREATIVE ACTIVITIES

UA Solar Decathlon Project seed(POD), Larry Medlin P.I. 10% time with J. Vollen, D. Clifford, M. Gindlesparger, C. Domin, A. Malo, SOA, and J. Simmons, Material Science and Engineering. Selected by U.S. Dept. of Energy for development and installation on US National Mall in Washington, D.C., October 2009, 2007-present.

Civano Demonstration Project. Drachman Institute, Admin. C.Poster and M. Robinson; Research Faculty/Staff-N.Chalfoun, L.Medlin, R. Brittain, V.Little; Design & construction Faculty—M. Hardin, J.Folan, D.Eribes; Project coord.staff L. Carr, S.Smith. Grant $233,999.00 from the City of Tucson. Approx. 5% of work, 2005-2007.

Night Vision Threshold Test to Assess Night Blindness (in portable tent structure), D. Taren, P.I. – Assoc. Prof. Of Public Health, B. Duncan, Co-P.I.—Prof. Of Pediatrics and Public Health; J. Greivenkamp, Inv.—Prof. Of Optical Sciences and Opthamology, L.Canfield—Inv.—Professor College of Medicine, L. Medlin, Inv., Professor of Architecture, Kamal Shrestha, Consultant—Nepal, N. Shrestua,—Nepal, Grant $263,773 from the US Department of Health and Human Services; 2000; New Grant of $25,000 from F. Hoffman—La Roche Ltd.-Task Force SITE and LIFE, Basel Switzerland for Portable Darkroom Structure, Development, 2001-2002.

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

CALA Faculty Status Committee, 2008–present.

Chair, Faculty Status Committee (Fall 1999 thru Spring 2006, member since 1995).

Chair, Faculty Search Committee, 2000-2001 and 2005-2006 and Director Search Comm.ittee,1997-1998.

Juror, Fabric Architecture Student Design Challenge International Competition, 2001.

Chair, Graduate Committee (1999-2000, member since 1995).

UA Campus Sustainability Advisory Group, 2007-present.

During service as SOA Director (Fall 2004 and Fall 2006-Spring 2008) member most SOA and CALA Committees.

Member,Govenor's Arizona Solar Energy Advisory Council,2006-present.

UA Parking and Transportation Committee (past Chair, advisor 1995-present)

Member, Scottish Rite/UA Child Language Center Advisory Board (1999-2005)

Member, West University Historic District Advisory Board, 1991-1999.

Member, Arizona Solar Energy Association Board, 1996-2001.

Member, International Advisory Group for the Institute for Lightweight Structures, University of Stuttgart (1993-present).

PROFESSIONAL MEMBERSHIPS

American Institute of Architects

LICENSES & PRACTICE

Architect-Arizona (Previous-Missouri, West Germany), Work in collaboration with Richard Larry Medlin, Architect.

Tension structure consultant to Poster Frost Associates for the Flowing Wells Community Center, 2005-2007.

Tension structure consultant to Ellermann & Schick Architecture/Planning and Westcor Development Partners, Phoenix for tensile structures and cool towers at the Yuma Palms Regional Center Project, 2003-2005.

Tension Structure Consultant to Burns and Wald-Hopkins Architects for Reid Park Zoo Entry Concept Design and Adaptive Recreation Center Design, City of Tucson/Parks and Recreation Department, 2001-2002.

On site Consultant for Prototype Canopies for Shrimp Ponds at the Seawater Farm, Massawa, E rithea, East Africa, 2000.

Architect for Civano Nursery and Education Center, Tucson, 1996-1999 andSatori School, Tucson,1997-1998.

JOHN MESSINA
Senior Lecturer

CURRENT TEACHING
Arch. 452 Capstone
Gen. Ed. Elective TRAD 104: Sonora: A Description of Place in Arid America

EDUCATION
Master of Science in Architecture, Massachusetts Institute of Technology, 1977
B. Arch., Louisiana State University, Baton Rouge, 1965

ACADEMIC EXPERIENCE
Senior Lecturer, School of Architecture, University of Arizona, 2005-present
Research Architect, School of Architecture, University of Arizona, 2000-2005
Assistant Professor, School for the Arts, Boston University, 1976-85

AWARDS AND HONORS
Design Excellence Award from the Southern Arizona Chapter American Institute of Architects and *Tucson Lifestyle House and Garden* magazine, for Treat Avenue Additions,Tucson, Arizona, 2005
Design Citation, from the Southern Arizona Chapter American Institute of Architects, for *Perf*Hut addition, Tucson, Arizona, 2004
Design Excellence Award from the Southern Arizona Chapter American Institute of Architects and *Tucson Lifestyle House and Garden* magazine, for *Perf*Hut addition,Tucson, Arizona, 2003
"Windows on the Past" award from the U.S. Forest Service for a building assessment report on the Sabino Canyon Lowell Ranger Station Office, produced in a Preservation Design Studio, taught spring 2001
Historic Preservation Certificate from the Tucson-Pima County Historical Commission for a building assessment report on the Sabino Canyon Lowell Ranger Station Office, produced in a Preservation Design Studio, taught spring 2001
Merit Award from the New Orleans Vieux Carré Commission for
the restoration of an 1841 French Quarter townhouse, New Orleans French Quarter – 2000
Artist Fellowship, Massachusetts Artists Foundation – 1980.
AIA Medal for Excellence in the Study of Architecture, Louisiana State University, 1965
AIA Scholarship, Louisiana State University School of Architecture, 1964

PUBLICATIONS
Alamos, Mexico: Architecture and Urbanism in the Dry Tropics, book to be published by the University of Arizona Press, fall 2008.
"La Casa Alamense: The Mexican Hacienda as Urban Dwelling." In *Perspectives in Vernacular Architecture*, Vol. 12, 2005, pp.11-31.
"Architecture and Urbanism of the Pimería Alta," in *Guide for the 25th Vernacular Architecture Forum Conference*, 2005, pp. 27-41, 109-115 and 127-131..
"The Hacienda in Mexico," in *Journal of Arizona History*, Vol.46, spring 2005 (book review).
"A Surreal Garden in Alamos, Mexico," in *Journal of the Southwest*, Vol. 5, Numbers 1 and 2, with Lauri Macmillan Johnson, November 2003, pp. 251-261.
Journal of the Southwest, Vol. 5, Numbers 1 and 2, Special Architectural Issue, guest editor, November 2003.
"Evolving Architectural Tectonics in the Sonoran Desert," in *Imagining Realms – Remaking Worlds*, Proceedings of the Western Region ACSA Conference, Association of Collegiate Schools of Architecture, California Polytechnic State University, San Luis Obispo, CA, November 2002.
"Abstraction Versus Representation in Current Architectural Practice," in *Why Does Modernism Refuse to Die?* Proceedings of the ACSA Northeast Regional Meeting, Association of Collegiate Schools of Architecture, McGill University, Montréal, Canada, September 2002.

LECTURES AND CONFERENCE PARTICIPATION
"What is Southwest Regionalism?" Community Design Academy, Sonoran Institute, February 2008.
"The Third Battle of New Orleans: Rebuilding After the Hurricanes," Planning Seminar, University of Arizona Planning Degree Program, March 2006.
"Building within Historic Contexts: Opportunities Lost or Gained," Arizona Preservation Conference, Tucson, June 2005.
"Espacios para la Cultura y el Arte," Programa de Arquitectura, La Universidad de Sonora, October 2004.

"Urbanism in the Southwest: How it was lost and How it Might be Regained" Tucson Museum of Modern Art (MOCA), November 2004.
Moderator, "Living with the Past: Urban Conservation in Cairo, Havana and Tucson," Symposium held at the University of Arizona, April 2002.
"Accommodation and Conflict on the Mississippi: Preservation Dilemmas in the New Orleans French Quarter," The International Colloquium for Vernacular, Hispanic, Historical, American, and Folklore Studies, Puebla, Mexico, October 2003.
"La Casa Alamense: The Mexican Hacienda as Urban Dwelling," Vernacular Architecture Forum Annual Conference, St-Pierre et Miquelon, France, June 2003.
"Evolving Architectural Tectonics in the Sonoran Desert," Western Region ACSA Conference, Association of Collegiate Schools of Architecture, California Polytechnic State University, San Luis Obispo, CA, November 2002.
"Abstraction versus Representation in Current Architectural Practice," ACSA Northeast Regional Meeting, Association of Collegiate Schools of Architecture, McGill University, Montréal, Canada, September 2002.
"Self Initiatives in Alamos, Mexico as a Means Toward Preservation and National Recognition," International Council on Monuments and Sites, U.S. Committee (US/ICOMOS), International Conference, Santa Fe, NM, April 2002.
"The View from Black Mountain: Tucson's Urban and Architectural Trajectory," conference held at the Programma de Arquitectura, La Universidad de Sonora, October 2001.
"Housing Typologies of the Creole City," colloquia held at the Escuela de Arquitectura, Universidad de Sonora, September 2001.
"Five Lectures on the Development of the Creole City of New Orleans," presented to the Facultad de Arquitectura, Universidad Autónoma de Sinaloa, (seminar), November 2000.
"Regionalism: The Problematic of a Seduction," Inventing the Southwest Conference, University of Arizona, April, 1991.

EXHIBITIONS
Several exhibitions of architecture at awards programs of the AIA and local galleries, 2000-present

RESEARCH & CREATIVE ACTIVITIES
"Driven by the Sun," Solar informed tectonics in Arizona architecture
Architecture and Urbanism of Northwest Mexico, 2000 - 2007
Bernsen Studio: A 600S.F. painter's studio – Currently in design.
Treat Avenue Addition: Design and construction of a bed and bath suite - completed 2005.
Perf.Hut : Design and construction of an office addition to a Tucson house – completed 2003.

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Member Board of Directors, Southern Arizona Chapter American Institute of Architects
Coordinator of CALA Lecture Series, Fall 2006 and 2007-08
Editorial Board Member, CALA Newsletter, 2006 – present
Member, Nominating Committee, Cooper-Hewitt National Design Awards, 2006 to present.
Vice-coordinator for the 25th Vernacular Architecture Forum Conference, Tucson, April 2005.
Member of El Presidio Historic District Advisory Board, 2003 to 2007
Numerous lectures to university classes and community groups.

PROFESSIONAL MEMBERSHIPS
AIA, Vernacular Architecture Forum and ACSA

LICENSES & PRACTICE
Architect: Arizona, Louisiana, Rhode Island (inactive) and NCARB
Principal, John Messina Architect, Tucson, Arizona, 1992 – present
Project Architect, Facility Design and Construction, University of Arizona, 1988 -1992
Senior Designer. Architecture One, Tucson, Arizona, 1986 -1987
Principal, John Messina Architect, Wickfort, R.I., 1982 –1985
Architect, Lowery Hess Brodeaux Architects, New Orleans, LA, 1966 - 1967
Intern, Ream Quinn Architects, Denver, CO, 1965 -1966
Intern, Berensen Glenny Architects, Baton Rouge, LA, 1963 1964
Building types: Assembly, Financial, Institutional, Multi-family and Single-family Residential

RICHARD J. MICHAL
Adjunct Lecturer

CURRENT TEACHING
Arch. 461a/561a Solar Utilization

EDUCATION
M. Arch., University of Arizona, Tucson, 2007
B. Arch., University of Arizona, Tucson, 2007
MBA, Indiana University, Indianapolis, 1994
BS Engineering, Purdue University, West Lafayette, 1990

ACADEMIC EXPERIENCE
Adjunct Lecturer, School of Architecture, University of Arizona, 2006-present
Arch. 421 Building Technology and Environmental Control Systems, Fall 2006
Arch. 461d/561d Computer Energy Analysis, Fall 2007
Arch. 461a/561a Solar Utilization, Spring 2008
Graduate Research Assistant, school of Architecture, University of Arizona, 2003-2006
Graduate Teaching Assistant, School of Architecture, University of Arizona, 2001-2003

AWARDS AND HONORS
Michal Residence featured in and on the cover of "The Green House", Tucson Home Magazine, Green Edition, Winter 2006.
Beta Gamma Sigma National Business Honorary, 1994
Beta Tau Construction Engineering and Management Honorary, 1988 – 1990
Omni Construction of Washington, DC Scholarship Award Recipient, 1989
Indiana Association of General Contractors, Outstanding Student Scholarship Award Recipient, 1988

PUBLICATIONS
Paper, "Incorporating Sustainability as a Primary Design Fundamental in Residential Architecture", with Dr. N.V. Chalfoun, presented at the First International Conference on Harmonization Between Architecture and Nature, Wessex Institute of Technology, The New Forest, UK, June 2006.
Paper, "BUILDING A PASSIVE SOLAR RESIDENCE: A Successful Collaboration between Academic Researchers, Design Practitioners and Material Suppliers", with Dr. N.V. Chalfoun, presented at the 2004 Joint Research Conference of the European Association for Architectural Education and Architectural Research Centers Consortium, Dublin, Ireland, June 2004.
Paper, "Thermal Performance Comparison of Alternative Building Envelope Systems", with Dr. N.V. Chalfoun, presented at the Architectural Research Centers Consortium Conference on Stimulating Research, Arizona State University, Tempe, Arizona, April 2002.
Article, "Green Building... Fad or Future?", Trend Report, March 2008
Article, "Going Green in the Desert", with R. Brooks Jeffery, Tucson Lifestyle Home & Garden Magazine, March/April 2008
Article, "Utilizing Masonry to Insure Architectural Balance: A discussion of the importance of regionally appropriate materials in residential construction", Desert Mountain Source, Fall 2005.
Article, "A Tale of Two Homes, Different Approaches to Passive Ventilation", with Scott Feltheim RA, Southwest Contractor Magazine, US Green Building Council Arizona Chapter Supplement, 2006.
Article, "Designing the Passive Solar Residence", Terrain.org, A Journal of the Built and Natural Environments, summer 2005.
Fieldwork, "Flat Roof Housing in California and the American Southwest: Opportunities for Expanded Use", William Slembieda and Corinne Rosenblum, The Evelyn and Harold Hay Fund and the College of Architecture, California Polytechnic State University-San Luis Obispo, CA, 2004

LECTURES AND CONFERENCE PARTICIPATION

"Incorporating Sustainability as a Primary Design Fundamental in Residential Architecture", with Dr. N.V. Chalfoun, First International Conference on Harmonization Between Architecture and Nature, Wessex Institute of Technology, The New Forest, UK, June 2006

"Building A Passive Solar Residence: A Successful Collaboration between Academic Researchers, Design Practitioners and Material Suppliers", with Dr. N.V. Chalfoun, 2004 Joint Research Conference of the European Association for Architectural Education and Architectural Research Centers Consortium, Dublin, Ireland, June 2004

"Thermal Performance Comparison of Alternative Building Envelope Systems", with Dr. N.V. Chalfoun, Architectural Research Centers Consortium Conference on Stimulating Research, Arizona State University, Tempe, Arizona, April 2002.

"Green Building 101, Fundamentals of Green Building and Sustainable Design", University of Arizona College of Architecture and Landscape Architecture Lecture Series in association with the Arizona Opera League's 34th Annual Home Tour, Tucson, Arizona, March 2008

"Green Design for Sustainable Development", National Association for County and Economic Development Corporations 32nd Annual Conference, October 2007

"Green Building... Another Fad or the Future", Southern Arizona Chapter of the Construction Finance Manager's Association, Tucson, Arizona, August 2007

"Creating Sustainable Green Building Residential Communities", Arizona Chapter of the American Planning Association Green Building Seminar, Tucson, Arizona, August 2007

"Mixed-Use Master Planned Sustainable Community Development", Tucson Transatlantic Trade Inc. Holding Group's Annual Conference, Tucson, Arizona, March 2007

EXHIBITIONS

Michal Residence featured in the "Sustainable Living and Solar Home Tour", April 3, 2005

Michal Residence featured in the American Solar Institute's "Innovative Home Tour", 2003 - 2006

RESEARCH & CREATIVE ACTIVITIES

Residential and commercial green building programs, 2008 – present

Mixed-use sustainable master planned communities in the U.S. and the Coastal Regions of Nigeria, Africa 2007 – present

Thesis research on the design, computer energy modeling, construction, and post occupancy performance of a passive solar thermal mass residence, University of Arizona, 2002 – 2007

Graduate fieldwork and interviews regarding flat roof housing in California and the American Southwest, The Evelyn and Harold Hay Fund and the College of Architecture, California Polytechnic State University-San Luis Obispo, CA, 2003 – 2004

Graduate research on thermal performance analysis of alternative building envelope systems, University of Arizona, 2002 – 2003

Capstone research on culturally and environmentally appropriate programming and design for Navajo Nation Native American Community Center and Cultural Learning Center, University of Arizona, 2001 - 2006

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

Member, United States Green Building Council (USGBC) LEED for Homes National Core Committee, 2007 – present

Arizona State Representative, USGBC Western Regional Council, 2008 - present

Board of Directors, Arizona Chapter of USGBC, 2008 – present

Chair, Southern Arizona Branch of USGBC, 2008 – present

Member, City of Tucson and Pima County Metropolitan Energy Commission, 2008 – present

Member, Southern Arizona Home Builders Association Green Building Council, 2006 – present

Member Pima County Development Services Architectural Design and Green Building Guidelines Committee 2007 – present

Director, Navajo Nation Annual Volunteer Construction Work Trip, 1998 – present

Board of Directors, Drachmann Design Build Coalition, 2005 – present

Board of Directors, Brady Charitable Endowment Fund, 2006 – present

Editorial Board, Terrain Online Journal, 2007 – present

Advisory Board, Trend Report Southern Arizona Real Estate Newsletter, 2008 – present

Faculty, Sonoran Institute Community Design Academy, 2008 – present

Administrator, Arizona Youth Soccer Association Olympic Development Program, 2007 – present

PROFESSIONAL MEMBERSHIPS

United States Green Building Council

National Association of Home Builders

Southern Arizona Home Builders Association

LICENSES & PRACTICE

Licensed Professional Civil Engineer: Indiana and Arizona

LEED Accredited Design Professional

Principal, Richard J. Michal, LLC, Tucson, Arizona, 2007 – present

- Master planning consultant for 1,500 acre 4,000 home sustainable community in Nigeria, Africa
- Master planning consultant for Redeemer's University new campus in Lagos, Nigeria, Africa
- Design consultant for affordable off-the-grid housing for Nigerian Military (largest home builder in Nigeria), Nigeria, Africa
- Green Building Program Consultant to City of Tucson Development Services Department
- Planning and design consultant for LEED registered commercial mixed-use downtown revitalization projects

Project Manager, Pulte Homes, Tucson, Arizona, 2004 – 2007

- Responsible for managing planning, design, and construction of all commercial projects for Tucson Division
- Responsible for managing design and construction of first phase of sustainable master planned community

Division Director, Indiana Office of Utility Consumer Counselor, Indianapolis, Indiana, 1994 – 2001

- Policy analyst and expert engineering witness in natural gas, electric, water, waste water, and telecommunications regulated utility industries

Project Engineer, Geupel DeMars, Indianapolis, Indiana, 1990 – 1994

- Construction Management for Eli Lilly and Company corporate headquarters office and cafeteria buildings, research center laboratory facilities, and pharmaceutical process facilities and site utilities

Mark E. Mismash
Adjunct Lecturer

CURRENT TEACHING
Arc. 102 Foundation Studio 2
Arc. 201 Design Studio 1, Composition
Arc. 422 Building Technology 6, Steel and Concrete Structures

EDUCATION
M. Arch., University of Pennsylvania, Philadelphia, 2001
BS. Arch., University of Utah, Salt Lake City, 1997
AS. Arch., Salt Lake Community College, Salt Lake City, 1995

ACADEMIC EXPERIENCE
Adjunct Lecturer, College of Architecture and Landscape Architecture, University of Arizona, Arizona, 2007-present

AWARDS AND HONORS
Van Alen Fellow, 2000

PUBLICATIONS
"LESS impact HOUSE™" Renovation Nation, Planet Green Television, Arizona, 2009
Salt Lake City Cemetery - Digital Memory of the Dead, Thesis, University of Pennsylvania, 2001

LECTURES AND CONFERENCE PARTICIPATION
The LESS impact HOUSE™, USGBC Lecture, University of Arizona, Arizona, 2008

RESEARCH & CREATIVE ACTIVITIES
Sustainable design methodology including: investigation of common building methods with regards to structural and material efficiency, solar and wind energy utilization in buildings, water harvesting for potable and non-potable utilization in buildings, 2007-present
Thesis research, the role of digital/virtual reality within a modern architectural practice, University of Pennsylvania, 2000-01

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
External Reviewer, College of Architecture and Landscape Architecture, University of Arizona, 2003-present

PROFESSIONAL MEMBERSHIPS
AIA, and USGBC

LICENSES & PRACTICE
Registered Architect: Arizona
Principal, 11ten Design Inc. 2005-present
Project Architect, KBHA Architects, Tucson, Arizona, 2004-07
Project Manager, Rick Joy Architect, Tucson, AZ, 2003-04
Project Manager, TPH Architects, Salt Lake City, Utah, 2001-03
Project Designer, Ewing-Cole Architects, Philadelphia, Pennsylvania, 2000-01
Project Designer, Schiel Collaborative, Salt Lake City, Utah, 1994-99
Building types: Medical, Sports, Religious, Commercial, Industrial, Governmental, Institutional, and Residential Design with a current emphasis on environmentally responsible design practices.

COLBY MOELLER
Adjunct Lecturer

CURRENT TEACHING
Technology III (Third Year): Module 1, Fundamentals of Environmental Control Systems II
Graduate Design Studio, ARC 601, Integrative Studio

EDUCATION
M. Arch., University of Arizona, College of Architecture and Landscape Architecture, 2006
B. Arch., University of Arizona, College of Architecture and Landscape Architecture, 2007
B.A. Arch., University of New Mexico, College of Architecture, 1997
Minor in Fine Arts, University of New Mexico, College of Fine Arts, 1997

ACADEMIC EXPERIENCE
Adjunct Lecturer, College of Architecture and Landscape Architecture, University of Arizona, 2007-2008
Graduate Teaching Assistant, College of Architecture and Landscape Architecture, University of Arizona, 2005-2006

AWARDS AND HONORS
College of Architecture and Landscape Architecture (CALA) Portfolio Award, 2007
Second Place Challenge 1, Leading Edge Student Design Competition, 2006
Best in Show, CALA Portfolio Award, 2006
AIA Toledo Honor Award, Parks Tower, with Duket Porter MacPherson, 2003
AIA Toledo Honor Award, South Dining Hall, with Duket Porter MacPherson, 2003
Graduated Summa cum Laude 3.91/4.0, University of New Mexico, 1997
Presidential Scholar, University of New Mexico 1992-1996
Dean's List, University of New Mexico 1992-1997

PUBLICATIONS
Sustainable Design for Health Care Facilities: A Case Study of the LEED® Certified Rincon Community Hospital at Civano ,VDM Publishing, 2008

LECTURES AND CONFERENCE PARTICIPATION
Housing Design Symposium, "Energy Conservation" Plenary Session Co-Speaker,Tucson, AZ, 2005

EXHIBITIONS
Student Showcase, "Urban Cool Island," University of Arizona, 2006
Institute for the Study of Planet Earth (ISPE) Fest, "Urban Cool Island," University of Arizona, 2006

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Project Manager, Rob Paulus Architect, Ltd., Tucson, Arizona, 2005-2006
Designer, Duket Porter MacPherson, Toledo, Ohio, 2000-2004
Intern, Kells + Craig Architects, Albuquerque, New Mexico, 1998-2000

PROFESSIONAL MEMBERSHIPS
US Green Building Council

LICENSES & PRACTICE
LEED Accredited Professional, 2006
Architecture Licensure Candidate, Arizona Board of Technical Registration

ERIN E. MOORE
Visiting Assistant Professor

CURRENT TEACHING
ARC 301 Design Studio, ARC 497b/597b Estero Morua: Ecology and Building Technology, ARC 202 Design Studio, ARC 227 Architectural Programming

EDUCATION
M. Arch., University of California-Berkeley, 2003
BA, Smith College, 1996

ACADEMIC EXPERIENCE
Visiting Assistant Professor, School of Architecture, University of Arizona, 2006-present
Adjunct, School of Architecture, University of Arizona, 2004-2006
Graduate Student Instructor, University of California-Berkeley, 2002-2003

PUBLICATIONS
Abstract under review, Ellen McMahon and Erin Moore, New Views 2: Conversations and Dialogues in Graphic Design, London, July 2008.
Dale Clifford and Erin Moore, "Smart Materials and Self Regulating Envelopes," Proceedings of the International Council for Research and Innovation in Building and Construction, South Africa, 2007.
Erin Moore, "Information Location," Proceedings: ACSA 2007: Fresh Air, March 8-11, 2007.
Kathleen Dean Moore and Erin Moore, "Six Kinds of Rain: Searching for Place in the Academy," in Placing the Academy: Essays on Landscape, Work and Identity, Jennifer Sinor and Rana Kaufman ed. (Logan, UT: Utah State University Press, 2007).
Dale Clifford and Erin Moore, "Adaptive Architecture: Intelligent and Responsive Systems," Proceedings of the Tenth International Conference on Civil, Structural and Environmental Engineering Computing. Rome, Italy, 2005.
Kathleen Dean Moore with Erin Moore, Patterns of Inductive Reasoning: Developing the Critical Thinking Skills, 4th Edition (Dubuque, Iowa: Kendall/Hunt, 1998).

LECTURES AND CONFERENCE PARTICIPATION
Invited Panelist, International Association for Environmental Philosophy, "Thinking Through Nature: Philosophy for an Endangered World," Eugene, Oregon, June 2008
Lecture, "Collective Practice," Museum of Contemporary Art Tucson AZ, November 2007
Panelist, Panel of the Newly-Licensed, State Convention, American Institute of Architects, Phoenix AZ, September 2007
Lecture, "Information Location," ACSA 2007: Fresh Air, Philadelphia PA, March 2007.

EXHIBITIONS
Guest curator, Design Co*op, Concept : MOCA, Tucson, scheduled to open June 2008
Selected work in Ellen McMahon, *"NaturArte: A Bi-National, Interdisciplinary Wetlands Conservation Project in Sonora, México* , SIGGRAPH 2007, The 34th International Conference on Computer Graphics and Interactive Techniques, San Diego
Selected artist, "The Eleventh Shade of Green," exhibition, BAM (Berkeley Art Museum), October 2001

RESEARCH & CREATIVE ACTIVITIES
Floodspace, research collaboration with Simi Hoque, PhD (MIT) on small-scale architectural adaptations to climate change-related flooding in Bangladesh; Abstract accepted, with Simi Hoque, Bangladesh Development Initiative conference, Harvard University, June 2008; Floodspace research grant in review, American Institute for Bangladeshi Studies, March 2008; Floodspace selected by Echoing Green for further grant development, December 2007.
FLOAT Architectural Research and Design (principal 2006-present); TKE bathhouse in design development; Interpretive Pavilions, Estero Morua, Sonora, Mexico: new construction (in schematic development); Bathhouse, Cholla Bay, Sonora, Mexico: bathing addition/installation (in design development); CEK cabin, Tenakee Springs, Alaska: remodel, construction begins April 2008; Watershed, Wren, Oregon: writing cabin as hub of watershed restoration project, 2007; Press: "Watershed" scheduled to feature in Dwell, July 2008, "Watershed," pre-fab Friday, www.inhabitat.com, January 11, 2008, "Watershed" in "A room of one's one," Little House on a Small Planet, (NY: Lyons, 2006).

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

Faculty Mentor, Southwest Foundation Scholarship Program and Seminar, University of Arizona, 2006
School of Architecture Events Committee, University of Arizona, 2006-present
School of Architecture Undergraduate Admissions Committee, University of Arizona, 2006-present
Artist in Residence, Tucson Museum of Contemporary Art, 2007-present
Visiting Critic, Massachusetts Institute of Technology (Prof. Simi Hoque), December 2006
Visiting Critic, University of California-Berkeley (Prof. Susan Ubbelohde), October 2003, December 2006
Visiting Critic, Texas Tech University (Profs. Jesse Vogler, Brian Rex, Raimund McClain), November 2005

LICENSES & PRACTICE

(State of Arizona Architectural Registration expected March/April 2008)

FLOAT Architectural Research and Design (principal), August 2006-present (see research and creative activities)

Line and Space Architects, Tucson, Arizona, February 2005 – August 2006; Red Rock Desert Learning Center, Las Vegas: Instructor Housing (lead designer in conceptual design to design development with L. Wallach); Red Rock Desert Learning Center, Las Vegas: Dining Hall, Laboratory Building, Dormitory, Observatory, Horse and Burro Facilities and Administration Buildings (schematic design to design development with R. Clements, D. Bullaro, and M. Conley); Arizona Historical Society, Tucson (program development with L. Wallach)

Ibarra Rosano Design Architects, October 2003-February 2005; "The Slice," Barrio Blue Moon, Tucson: Infill Housing (construction documents with Teresa Rosano and Luis Ibarra). Awarded the AIA Southern Arizona Design Excellence "Merit Award," 2005; "The Double," Barrio Blue Moon, Tucson: Infill Housing (construction documents with Teresa Rosano and Luis Ibarra); The Metcalf-Schorr Residence: Addition (site study, design development with Teresa Rosano and Luis Ibarra); The Gittings-Robert Residence: Addition (site study, design development with Teresa Rosano and Luis Ibarra); The Grasshopper House, Sonoita: New Residence (site study with Teresa Rosano and Luis Ibarra); Unitarian Universalist Congregation, Tucson: Feasibility Study (site study, programming, and conceptual design with Teresa Rosano and Luis Ibarra).

Van Der Ryn Architects, Sausalito, California, 2002, 2003; Sustainability and Environmental Studies House, Berea College, Kentucky (energy modeling, building envelope design, and alterative energy and waste systems planning and permitting with Sim Van Der Ryn, Rob Peña, and Buddy Williams)

W. SCOTT NEELEY
Adjunct Lecturer

CURRENT TEACHING
Arch. 302, Design Studio 4: Tectonics

EDUCATION
M. Arch., University of Texas at Austin, 1990
Certificate, Winedale Preservation Institute, Winedale,Texas, 1987
B. A., Brown University, Providence, 1978

ACADEMIC EXPERIENCE
Adjunct Lecturer, School of Architecture, University of Arizona, 2008
Visiting Assistant Professor, School of Architecture, University of Nebraska, 1997-1998

AWARDS AND HONORS
AIA "Citation Award" for 8th Street Live-Work, Davis, California. AIA California Central Valley. October, 2006.
City of Davis "Environmental Recognition Award" for Harrington Place Law Offices, May 2005.
State of California "Environmental Recognition Award" for Harrington Place Law Offices, May 2005.
City of Davis "Preservation Appreciation Award" for Woodstock's Pizza expansion, May 2003.
AIA "Certificate of Merit" for Alabama Avenue House, Durham, North Carolina. "DESIGN 97: Top 25 Projects," AIA Housing Professional Interest Group.
University Fellowship. University of Texas at Austin, School of Architecture and Planning. 1986-1987.

PUBLICATIONS
"A Weaver and Woodcutter's Refuge", *The House to Ourselves: Reinventing Home Once the Kids are Grown*, Taunton Press, 2004.
"A Haw River Production," *American Style*. Summer 2002.
"Room Enough for Two: A Highly-Detailed Compact House," *Fine Homebuilding*. February/March 1998.
"Cottage in the City: A Cost Conscious New House Nestles into a Pine Studded Site," *Fine Homebuilding HOUSES*. Spring 1996.
"Cool Details: An Energy-Efficient House Inspired by Texas Vernacular Architecture," *Fine Homebuilding*. November 1991.
"A Newcomer on Grand Avenue: Squeezing a Tidy Victorian into an Historic Neighborhood," *Fine Homebuilding HOUSES*. Spring 1991.
MUSES User's Manual: A Teaching and Reference Guide to MUSES 3-Dimensional Modeling Software, 1990.

EXHIBITIONS
"Craft in Architecture: Design/Build." Mebane Gallery, University of Texas School of Architecture, Fall 1989.

PROFESSIONAL and PUBLIC SERVICE
Board Member, Davis Downtown Business Association, Davis, California, 2002-2005
Chair, Design Committee of Davis Downtown Business Association, Davis, California, 2004
Member, Project Area Committee of City of Davis Redevelopment Agency, Davis, California, 2002-2005
Commissioner, City of Davis Historic Resources Commission, Davis, California, 1999-2005
Commissioner, Durham City/County Historic Preservation Commission, Durham, North Carolina, 1996-1997
Member, Building Committee, Durham Community Land Trustees, 1995-1997
Organizer, "Building Community Workshop", Joint Venture of AIA and Durham Community Land Trustees, 1996-1997

PROFESSIONAL MEMBERSHIPS
National Trust for Historic Preservation, American Institute of Architects

LICENSES and PRACTICE
Licensed Architect: California, Missouri, North Carolina, NCARB Certificate
Licensed Contractor: California
Principal: Scott Neeley Architecture, Davis, California, 1999-
Practice Areas: Commercial, Industrial, Civic, Residential, Arts, and Urban Design

PHILIPP NEHER
Studio Instructor

CURRENT TEACHING
ARC 402 Design Studio VI: Urban Form

EDUCATION
MDesS, Harvard University, Cambridge, 2004
Diploma in Architecture (equiv. M. Arch.), Universität Stuttgart, Germany, 2001
Visiting student, Ecole Polytechnique Fédérale de Lausanne, Switzerland, 1996-1997

ACADEMIC EXPERIENCE
Studio Instructor, School of Architecture, University of Arizona, 2008
Studio Instructor, Career Discovery Program, Harvard University, Cambridge, 2004
Research Assistant, Institute for Theory in Modern Architecture, Universität Stuttgart, Germany, 1998-1999
Guest Critic, Design Reviews: ASU, GSD, MIT, UofA, 2003-2008

AWARDS AND HONORS
Charles W. Holtzer-Fellowship, Harvard University, 2003-2004
Research Award, German Academic Exchange Service, 2003-2004
Diploma and Master's degree with distinction

PUBLICATIONS
Textile/Tectonic: Architecture, Material, and Fabrication, installation, Prof. Toshiko Mori (ed.), Harvard University, forthcoming

LECTURES
Hospice – creating an appropriate atmosphere for the last days of life, ARC 227, University of Arizona, 2006
Atmosphere and the new sublime, Design Lab, MOCA, Tucson, 2005

EXHIBITIONS
Transparency, research for an exhibition at the Graduate School of Design, curator: Prof. Eve Blau, Harvard University, 2004
In-Between, installation at the Graduate School of Design, Harvard University, 2004
Weaving & Habitation, installation piece, Sheldon Art Galleries, St. Louis, curator: Prof. Toshiko Mori, Harvard University, 2004
La construzione dell'Immeuble Clarté, scientific drawings, curator: Devanthéry and Lamunière, Mendrisio, Switzerland, 1999 (publication in catalogue)

RESEARCH & CREATIVE ACTIVITIES
Stage Design, Athena Theater, Harvard University, 2004
Academic research on the spatial phenomenon *Atmosphere*, Harvard University, 2003-2004
Thesis research on the urban and architectural implications of death and dying in our society, thesis: *Hospice – creating an appropriate atmosphere for the last days of life*, Universität Stuttgart, Germany, 2001
Diverse competitions (e.g. extension of department of Historic Preservation, Esslingen, 2nd price; New International School Geneva, 4th price; extension airport Mexico City; Master Plan Bahia Balandra, Mexico, 1st price)
Students' Choice, initiation, organization and fundraising for a lecture series, Universität Stuttgart, Germany, 1998-1999

ACADEMIC, PROFESSIONAL & PUBLIC SERVICE
ProNeighborhood, Design Consultant, since 2007
Community Design Academy, Sonoran Institute, 2008

PROFESSIONAL MEMBERSHIPS
Architektenkammer Baden-Württemberg, NCARB, USGBC

LICENSES & PRACTICE
Licensed Architect, Germany, since 2007
Architect-in-Training, Rick Joy Architects, Tucson, since 2004
Architect-in-Training, Skidmore, Owings & Merrill, New York, 2004
Architectural Designer, Devanthéry and Lamunière, Geneva, Switzerland, 1997-1998, 2003
Independent Projects, since 1999
Diverse construction firms, 1993-1996

ANNE MARIE NEQUETTE
Lecturer Full time

CURRENT TEACHING
Arc 201 Studio: Spatial Composition
Arc 302 Studio: Tectonics
Arc 332 World History III: Modern and Contemporary History and Theory
Trad 103: Architecture + Society, Lectures 1 and 2H (honors)
Capstone, Independent Study and Thesis students, etc.

EDUCATION
MArch, Princeton University, 1986
MFA, University of California, Irvine, California, 1983
BA, Fine Arts, California State University Northridge, Northridge, California, 1981

ACADEMIC EXPERIENCE
Lecturer, Full time, School of Architecture, University of Arizona, 2001-2008
Adjunct Lecturer, Full time, School of Architecture, University of Arizona, 1996-2001
Guest studio critic and guest juror, School of Architecture, University of Arizona, 1987- 1996
University of Arizona Extended University course 'Tucson's Architectural Heritage", 1995-1996

AWARDS AND HONORS
Funded research 'Sustainable Design Strategies for Hot-arid Climates: A Comparative Study' (included Australia, Southwestern United States and Southern Spain), 2003 - 2006

PUBLICATIONS
"Architecture of the Territorial Period in Southern Arizona (1848-1912)" published in *Cultural Vernacular Landscapes of Southern Arizona*, Vernacular Architecture Forum, 2005
A Guide to Tucson Architecture, University of Arizona Press, Tucson, Arizona, 2002 [co-authored with R. Brooks Jeffery]

LECTURES AND CONFERENCE PARTICIPATION
Conference paper: "Identity, Critical Regionalism and Sustainable Practices in the Arizona Sonoran Desert" 4th Savannah Symposium: Architecture & Regionalism, Savannah College of Art & Design Department of Architectural History, 2005
"The Legacy of the Modern Home", lecture given in the Tucson Museum of Modern Art Design Lab series, 2005
Vernacular Architecture Forum Session Chair, VAF Annual Meeting, Tucson, Arizona, 2005
"Sustainable Architecture for the Sonoran Desert/Principles for Desert Architecture 101", University of Arizona, Distinguished Speaker Forum Series, 2005
"Australia: Landscape and Architecture", School of Architecture, University of Arizona, 2004

EXHIBITIONS
'LaCiudad/LaCittá" an architectural installation, Conrad Wilde Gallery, Tucson, Arizona, 2006-2007
'She Objects II: Women Who Make Objects', group show, Conrad Wilde Gallery, Tucson, Arizona, 2007
'Our Future in the Desert: Architectural Explorations' exhibition and lecture, sponsored by VisionWeavers/Scottsdale Center for the Arts, 1997

RESEARCH & CREATIVE ACTIVITIES
Compilation of the resources for the work of Tucson architect Art Brown, honors project with freshman students, 2004-2005

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Co-chair, Bi-Annual Contemporary Architectural Tour Committee, Tucson Museum of Art, Contemporary Art Society, 2007-2008
Member, Public Art Selection Committee (Municipal Courts Complex), Tucson Pima Arts Council, 2007
Advisory Board, Sonoran Institute's Tucson Design Academy, 2005-2006
Architectural Walking Tours for the AIA, Ivy League Clubs of Southern Arizona, and Tohono Chul Park, etc. Numerous public lectures and forums on Tucson Architecture, Preservation and Sustainable Practices, 1996 - 2008

Undergraduate Council, University of Arizona, 2002-2008
ACSA and AIAS coordinator for the School of Architecture, 2002-2005
AIA New Mexico Awards Jury member, 2004
Public Lecture Series for OASIS, with Brooks Jeffery, 'Tucson's Architectural Heritage', 1996 - 1997
Volunteer, Habitat for Humanity, 1996
Public lecture 'The Churches of the Southwest', 1995

PROFESSIONAL MEMBERSHIPS
Founder, and President of MAPP: Modern Architecture Preservation Project, 2004 – 2008
The Society of Architectural Historians, 2002 - 2005
Civitas Sonoran, 1999-2004
American Institute of Architects, Southern Arizona Chapter, 1994 - 1998
Mentor for these programs: New Frontiers Gender Equity Program, University of Arizona Women in Science & Engineering Program, and TUSD Elementary, Middle and High Schools (Professional Internship Program), 1990 - 1998

LICENSES & PRACTICE
Architect: Arizona, #26567
Anne M. Nequette, architect, 1996-1998
Burns + Wald-Hopkins Architects, Project Architect and Designer, 1992 - 1996
Architecture One, Ltd., Tucson, Arizona, Project Designer, 1991 - 1992
Anderson DeBartolo Pan, Inc., Junior Designer, 1987 - 1991

NICOLAS NORERO
Visiting Studio Instructor

CURRENT TEACHING
ARC 402 Design Studio VI: Urban Form

EDUCATION
Universidad de Chile, Santiago, Chile 2001

ACADEMIC EXPERIENCE
Assistant teacher, Architecture School, Diego Portales University, Chile 2002-2005
Teaching assistant, Architecture School, Universidad de Chile, Chile 1998-2002

PUBLICATIONS
, 2002

LECTURES AND CONFERENCE PARTICIPATION
Lecture Sub-30, Universidad de Chile, Santiago, Chile, 2003
Lecture Bicentennial Tower, Universidad de Chile, Santiago, Chile, 2002
Lecture Bicentennial Tower, Universidad Diego Portales, Santiago, Chile, 2002

EXHIBITIONS
"Panorama Emergente" Iberoamerican Biennale, Lima, Peru, 2004
Sao Paulo, Brazil Biennale, Interactive Museum Concepcion, Chile, MIC.

RESEARCH & CREATIVE ACTIVITIES
Public Furniture Competition, "Paseo Altamirano", Valparaiso, Chile, First Prize, 2004
Womens Memorial Competition, Santiago, Chile, First Prize, 2004
Matta "Verbo America", Mural support, Arturo Merino Benitez Airport, Chile, First Prize, 2003
XIII Architecture BIENAL, City and Globalization, Bicentennial Tower Competition, Chile, 2 Honorable Mention, 2002
Interactive Museum Competition, Concepcion, Chile, First Prize2002

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
N.Q.

PROFESSIONAL MEMBERSHIPS
N.Q.

LICENSES & PRACTICE
Architect in Training, Rick Joy Architects, Tucson, Arizona, 2006-
Nicolas Norero + Emilio Marin, Santiago, Chile, 2004-2005
Nicolas Norero, Santiago, Chile, 2003
Architect: Santiago,Chile, 2002

THOMAS J. POWERS
Adjunct Lecturer, College of Architecture and Landscape Architecture, University of Arizona

CURRENT TEACHING
Arc. 202 Second Year Undergraduate Architecture Studio II - Performance
Arc. 301 Third Year Undergraduate Architecture Studio III- Land Ethics

EDUCATION
M. Arch, University of California at Berkeley, 1993
BA, University of Maryland, College Park, with highest honors, 1984

ACADEMIC EXPERIENCE-APPOINTMENNTS
Adjunct Lecturer, School of Architecture, University of Arizona, 2007-
Adjunct Lecturer & Instructor, School of Architecture, University of California at Berkeley, 1993,1994, 2001
Graduate Student Instructor / Student Lecturer in Design, University of California at Berkeley, 1989 – 1993

AWARDS AND HONORS
Dobras Award, for Teaching Excellence, College of Architecture, University of Arizona, 2008
Merit Award (AIA East Bay / Evergreen Valley College Student Center) 2001
Citation Award (American Wood Council / Avis Granary) 2002
Merit Award (AIA East Bay / Avis Ranch) 2001
Honor Award (Sunset - AIA Western Home Awards / Avis Ranch) 2001
Record Interiors (Architectural Record / Oxygen Media Offices) 2000
Merit Award (Orange County AIA / Buckley Beach House) 2000
Merit Award (Sunset - AIA Western Home Awards, Buckley Beach House) 1999
Honor Award (AIA San Francisco / Tipping Building) 1997
Record Interiors (Architectural Record / f/X Headquarters) 1996
Honor Award (AIA East Bay / Tipping Building) 1996
Outstanding Educator, Graduate Student Instructor, Campus Wide, University of California, Berkeley 1991
CED Scholarship for Academic Merit and Distinguished Scholastic Record, 1988 - 1989
A.I.A. Honor Scholarship for Academic Achievement, 1989, 1990
Phi Beta Kappa, 1982

PUBLICATIONS
Architectural Record, "The Avis Ranch", Clifford Pearson (Clyde Park, Montana House), July 2006
The New York Times, "Small Footprints on a Vast Land" Elaine Louie (Avis Ranch, Clyde Park, Montana) June 8, 2006
Living with Kids: Ideas for Family Friendly Interiors, Eugenia Santiesteban (Buckley Beach House) Rockport Publ., May 2003
Architectural Record "The Evergreen Valley College Student Center" Clifford Pearson,(San Jose California) June 2001
Architectural Record "Evolve Software" Lisa Findley, (Emeryville California) June 2001
Interiors Magazine, "Industry Non-Standard-Evolve Software" Raul Barreneche (Emeryville, California) October 2000
Architectural Record "Feature House: Anderson-Ayers Residence" Lisa Findley, (Nicasio, California) October 2000
Architectural Record: Interior Awards Issue (Oxygen Media) September 2000
Global Architecture Houses 63: Project 2000 (Avis Granary) March, 1999
San Jose Mercury News, "Center Rejuvenates a Dated Campus," Alan Hess (Evergreen Valley College) December 26, 1999
San Francisco Magazine, "If You Build It," Meg Cohen Ragas (Napa Valley Museum) October 1998
Global Architecture Houses 62: Project (Anderson Ayers Residence) Nicasio California, March, 1998
Architectural Record, "Napa Valley Museum," Karen Stein (Napa Valley Museum) March 1998
Architectural Record, "The Tipping Building: Living Above the Store," Aaron Betsky (Tipping Building) January 1997
Architectural Record, "Baywatch or Workplace?" Aaron Betsky (f/X Networks Corporate Headquarters) September 1996
Global Architecture Houses 45: Project 1995 (Tipping Building) Berkeley, California March, 1995

EXHIBITIONS
'Visionary San Francisco", for Lars Lerup, Sohela Farohki and Richard Rodriguez, San Francisco Museum of Modern Art, curated by P. Polledri, 1990, and as SFMOMA permanent collection
"The Color of Elements, the Architecture of Mark Mack" for Mark Mack Architect, San Francisco Museum of Modern Art, 1993

LEADERSHIP, PUBLIC SERVICE & ADVISING
Director and Chair, Scholarship Committee, Phi Beta Kappa of Greater Tucson, 2001-
Chairman, Events Committee, College of Architecture and Landscape Architecture, University of Arizona, 2007-
Chair and Board President, Congress Street Historical Theatres Foundation, 2005 - 2007
Review of Undergraduate Application Essays, College of Architecture and Landscape Architecture, University of Arizona, 2008
The Portfolio and Photography Work-Shop, College of Architecture, University of Arizona, 2007 -
Review Board of Graduate Applicants, College of Architecture, University of California at Berkeley, 1989 - 1993

PROFESSIONAL MEMBERSHIPS
AIA, BOMA

LICENSES & PRACTICE
Architect: California, Arizona, NCARB
Partner, Cornerstone Capital Management and Development, Tucson Arizona, 2001-
Principal, Tom Powers Architects, Tucson Arizona, 2002-
Project Architect with Fernau and Hartman Architects, Berkeley California, 1993 - 2000
Furniture Designer and Fabricator, Swerve Furniture, Berkeley, California, 1999 - 2000
Partner, Gutschow and Powers Design, Berkeley, California, 1991 - 1993

PAUL E REIMER
Adjunct Lecturer

CURRENT TEACHING
Arc 302 'Tectonics' Studio

EDUCATION
M. Arch., SCI-Arc, Los Angeles, 1997
B. Arch., University of Minnesota, Minneapolis, 1989

ACADEMIC EXPERIENCE
Adjunct Lecturer, School of Architecture, University of Arizona, 2001-2006, 2008-Present
Adjunct Lecturer, Summer Institute for Architecture, Catholic University, 1999
Adjunct Lecturer, College of Architecture, Catholic University, 1998-1999

AWARDS AND HONORS
Merit Award, Built Category, AIA Western Mountain Region, 'Rincon Mountain Residence,' 2007
Finalist, SOM Traveling Fellowship, Second Professional Degree Category, 1997

PUBLICATIONS
n/a

LECTURES AND CONFERENCE PARTICIPATION
n/a

EXHIBITIONS
n/a

RESEARCH & CREATIVE ACTIVITIES
n/a

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
n/a

PROFESSIONAL MEMBERSHIPS
(none)

LICENSES & PRACTICE
Architect: Arizona
Project Architect, DesignBuild Collaborative, Tucson, AZ, 2001-Present
  Building types: Master Planning, Commercial, and Residential
Project Designer, Shinberg Levinas Architects, Bethesda, Maryland, 1999-2001
  Building types: Educational, Commercial, Spiritual, and Residential
Project Designer, Blackburn Architects; Washington DC, 1997-1999
  Building types: Equestrian and Residential
Project Designer, Berger Detmer Architects, San Francisco, CA, 1990-1995
  Building types: Educational, Commercial, Hospitality, Retail, and Residential
Project Team Member, Robinson, Mills + Williams Architects, San Francisco, CA 1989-1990
  Building types: Educational, Commercial, Spiritual, and Institutional

DALE L. RUSH
Visiting Studio Instructor

CURRENT TEACHING
ARC 402 Design Studio VI: Urban Form

EDUCATION
B. Arch., Auburn University, Rural Studio, Alabama, 2000

ACADEMIC EXPERIENCE
Studio Instructor, School of Architecture, University of Arizona, 2008
Guest Critic, School of Architecture, University of Arizona, 2006-2008
Guest Critic, School of Architecture, University of New Mexico, 2003-2005
Guest Critic, College of Architecture, Auburn University, 2004
Teaching Assistant, College of Architecture, Auburn University, 1998-2000

LECTURES
"Rural Studio" Film Screening, Panel speaker, Tucson AIA, Arizona, 2007
"Rural Studio" Film Screening, Panel speaker, University of New Mexico, New Mexico, 2003
"Notes from Alabama" the Design_Build process: inspiration and exploration, University of New Mexico, 2001

EXHIBITIONS
the Wall, Permanent installation of intimate space for quite reflection of personal loss, theLand an art site, New Mexico, 2003
Whitney Biennial, Rural Studio: Three Projects, Mason's Bend Community Center New York, 2002
the Deck, Permanent installation of extroverted space for reflection on the balance of our ecosystem and to inspire change for environmental conservation, theLand an art site, New Mexico, 2001

RESEARCH & CREATIVE ACTIVITIES
Study of readily available and recycled materials, their application through evolved and innovative construction methods, and how it can better the environments of our socially abandoned populations, 1999-
Thesis research on Architecture as a catalyst or inhibitor of social change and development, Auburn University, 1999-200

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Endorphin Power Company; Facilities Design Team; Albuquerque, New Mexico, 2003-2005
theLand and art site, Committee Member, Facilities Design, and Work-horse, Albuquerque, New Mexico, 2001-2005

PROFESSIONAL MEMBERSHIPS
National Council of Architectural Registration Boards

LICENSES & PRACTICE
Architect in Training, Rick Joy Architects, Tucson, Arizona, 2005-
Architect in Training, G. Donald Dudley Architect, Albuquerque, New Mexico, 2004-2005
Architect in Training, Dekker/Perich/Sabatini, Albuquerque, New Mexico, 2001-2004
Architect in Training, Lloyd & Associates, Santa Fe, New Mexico, 2000-2001
Various Independent and Pro-Bono projects since 1999

IGNACIO SAN MARTIN
Professor Full-Time

CURRENT TEACHING
ARC 402/502 Design Studio VI-Urban Form
ARC 451/551 Design Studio VII
ARC 471/571s Theories and Principles of Urban Design
ARC 497/597t Case Studies in Urban Design
ARC 900 Graduate Research Studio

EDUCATION
MCRP/UD, Master of City and Regional Planning, Urban Design Specialization College of Environmental Design University of California, Berkeley 1981
MLA, Master of Landscape Architecture Specialization in Landscape Ecological Planning College of Environmental Design, University of California, Berkeley 1979
BS, Environmental Geology, Specialization in Sedimentology and Geomorphology Interdisciplinary Sciences Studies Portland State University 1975
Diploma, Industrial Design and Architecture Practice in Architecture (affordable housing) 1965.

ACADEMIC EXPERIENCE
Elected Scientific adviser for the Journal Ciudades Published by the Institute for Urban Studies, School of Architecture, University of Valladolid, Spain 2008
Member and Technical Research Adviser, Research Grants Council in Urbanism and Landscape Architecture, The university of Hong Kong, China
Member, and Scientific adviser Atacama Design Center (ADC), Pontifica Universidad Carolica De Chile, College of Geography and School of Architecture.
Professor of Architecture, Coordinator, Urban Design Program, School of Architecture, The University of Arizona Tucson, Arizona 2001-2008
Affiliate Professor of Urban Design Instituto de Urbanistica Escuela Technica Superior de Arquitectura Universidad de Valladolid, Spain 1998-present
Graduate Program Coordinator, School of Planning and Landscape Architecture College of Architecture and Environmental Design Arizona State University, Tempe 1996-2001
Tenured Associate Professor, School of Planning and Landscape Architecture College of Architecture and Environmental Design Arizona State University, Tempe 1994-2001
Associate Professor, School of Planning and Landscape Architecture, College of Architecture and Environmental Design, Arizona State University, Tempe 1990-1993
Research Associate, Institute of Urban and Regional Development (IURD), College of Environmental Design University of California, Berkeley 1980-1982

AWARDS AND HONORS
Graduate College Recognition Award, Mentoring graduate students, Arizona State University 1999.
Theories of Urban Design was selected as a demonstration of creative teaching by Arizona State University.
The City in History course was awarded in1992, 1994 and 1995 the special recognition award from The America Society of Planning History (ASPH). Students Mark de Lucido, Nashua Kalil and Michael Holins were the recipients of the undergraduate and graduate history papers awards.
Affiliate Professor of Urban Design Instituto de Urbanistica Escuela Technica Superior de Arquitectura
Universidad de Valladolid, Spain 1998-present.
Fellow, Institute for Urban Design, New York 1998-present

PUBLICATIONS
2008 "Urban Design in Arid Regions; A Selection of papers from the Arizona Symposium" Book, Author
San Martin, Ignacio (2000) *Paisaje y Territorio: El Paisaje en la Planninficacion Ecologica* Doctorado en, Ciudad,Territorio y Patrimonio. Universidad Iberoamericana, Puebla, Mexico. In Materiales de Investigacion, Programa de Doctorado 1998-2000 DOCUMENTOS 3. Instituto Universitario de Urbanistica, Universidad de Valladolid, Spain pp.147-163
Juan Luis de las Rivas, Ignacio San Martin, and Frederick Steiner (2000). *Introduccion* Proyectar con la Naturaleza. Introduction to the Spanish translation of Ian McHarg Design with Nature. Gustavo Gili, Barcelona pp.VI-XI

San Martin, Ignacio, Carlos Licon and Frederick Steiner (1999). *Evaluating the Visual and Cultural Landscape of the Valladolid Region.* Regional Plan of Valladolid . Directrices de Ordenacion Territorial de Valladolid. Valladolid,: Junta de Castilla y Leon.

Book Reviews

San Martin, Ignacio. Review of Witold Rybczynski A Clearing in the Distance: Frederick Olmsted and America in the Nineteenth Century . New York :Scribner . In: APA Journal Vol. 66,No.3 Summer 2000 pp. 322-323.

San Martin, Ignacio. Review of Yaro, D. and Hiss T. A Region at Risk :The Third Regional Plan for the New York-New Jersey-Connecticut Metropolitan Area Island Press, Washington, D.C. 1996. In Landscape and Urban Planning 1998.

San Martin, Ignacio. *The Difficult Path of Sustainability: Conflicting Ideologies on the Production of Urban Space* . Journal CIUDADES 6, Instituto de Urbanistica. Valladolid, Universidad Superior de Arquitectura. (Forthcoming, Spring 2002)

San Martin, Ignacio *The Character of Sprawl and its Indicators* International Symposium Proceedings, First Policy Forum on Urban Sprawl. Center for Environmental Studies, Budapest, Hungary (In Press)

San Martin, Ignacio *The Perception of Sprawl: The Battle for Sustainable growth in Arizona.* International Symposium Proceedings on Urban Sprawl. Institute for Ecopolicy Technical University of Prague. (April 2001 pp.--)

RESEARCH & CREATIVE ACTIVITIES

City of Tucson, Rio Nuevo Multi-Purpose Facility District with Alvaro Malo et al ($32,.000.00) Fall 2001.

Seed-Grant Program for Innovative Research, Hopi community project. Office of the Vice Provost for Research, Arizona State University ($10,000) Spring 2001.

Salt River Project (SRP), Office of Renewable Energy Phoenix, Arizona *Hopi Community Project Renewable Energy Community Design.* ($35,000) Fall 2000

Hopi Tribal Council, Village of Moencopi. *Site Selection, Alternative Housing Prototypes and Village Planning Layouts.* Lower Moencopi Village. ($42,598.00) Summer 1999

The American Architectural Foundation (AAF) and National Endowment for the Arts (NEA) Award. *Mayor's Institute for Civic Design, Southwest,* ($48,730.00) Spring 1998.

ACADEMIC, PROFESSIONAL & PUBLIC SERVICE

Fellow, New York Urban Design Institute
Juror, University of Arizona Student Show Case Competition 07
Faculty Senate, College of Architecture and Landscape Architecture 06-08
Faculty Senate, Representative, Student Affairs Committee (SAPC) 05-07
Faculty Affiliate, Latin American Center, University of Arizona 03
Chair, College Faculty Status Committee

PROFESSIONAL MEMBERSHIPS

Fellow, Institute for Urban Design, New York
Resource Member, National Endowment for the Arts (NEA)
Member, American Collegiate School of Architectural Education(ACSA)
Member, American Society of Landscape Architects (ASLA)
Member, National Trust for Historic Preservation

LICENSES & PRACTICE

ROBIN SHAMBACH
Adjunct Lecturer

CURRENT TEACHING
Arch.493-593 Internship

EDUCATION
B. Arch., University of Arizona, Tucson, 1985

ACADEMIC EXPERIENCE
Adjunct Lecturer – University of Arizona, Internship 2004 -

AWARDS AND HONORS

PUBLICATIONS

LECTURES AND CONFERENCE PARTICIPATION
Laboratories for the Twenty First Century Labs21 Conference: The Quest for Platinum: Challenges involved in designing a laboratory facility that will achieve LEED™'s highest rating, 2005

Society of College and University Planning Annual Conference: You Can't Cross a Border if You Can't Find It , 2003

EXHIBITIONS

RESEARCH & CREATIVE ACTIVITIES

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
CALA IDP Educator
AIA Southern Arizona Chapter President 2007
Board Member Community Home Repair of Arizona 2004 - Present
IDP Mentor / Supervisor
Southern Arizona Leadership Council Arizona Town Hall – Land Use Focus
AIA National Sustainable Design Assistance Team –Tucson Committee

PROFESSIONAL MEMBERSHIPS
American Institute of Architects
United States Green Building Council

LICENSES & PRACTICE
Architect: Arizona,
Principal, Burns Wald-Hopkins Architects, Tucson, Arizona, 1992-
Project Architect, Freidman Keim McFerron, 1990 - 1992
Project Team Member, Anderson DeBartolo Pan, 1984-1990

Building types: Educational, Institutional, and Cultural

Current Projects
New Davidson Elementary School $5.2 Million 40,000 gsf
First TUSD USGBC LEED certified school

Northern Arizona University Applied Research and Development $22 million 60,000 gsf
Completed March 2007
Certified USGBC LEED Platinum October 2007

Pima County Flowing Wells Library $1.3 million 5,000 gsf under construction
Tucson Origins $54million Rio Nuevo site, historic structures, plaza and parking and orientation center - various phases
Pima Community College Desert Vista Campus various projects –complete January 2008
Northern Arizona University Distance Learning Facility $8 million 21,000 gsf
Pinal County Maricopa Justice of the Peace Court

SHANE I. SMITH
Adjunct Lecturer

CURRENT TEACHING
Arch. 101 Foundation Design Studio
Arch. 402 Community Design Studio

EDUCATION
M. Arch., University of Arizona, Tucson, AZ, 2005
B. Arch., University of Oregon, Eugene, OR, 1998

ACADEMIC EXPERIENCE
Adjunct Lecturer, University of Arizona, Tucson, AZ, 2007
Research Coordinator, Drachman Institute, University of Arizona, Tucson, AZ, 2007-08
Teaching Assistant (foundation studios and history/theory courses), University of Arizona, Tucson, AZ, 2004-05
Research Assistant (various projects), School of Architecture, University of Arizona, Tucson, AZ, 2004-05
Research Assistant, Environmental Research Lab, University of Arizona, Tucson, AZ, 2005

AWARDS AND HONORS
Archon Design Competition Second Prize, Univ. of Arizona, Tucson, AZ, 2005
Meritorious Graduate Teaching Assistant Award, Univ. of Arizona, Tucson, AZ, 2005
Daido Institute of Technology Bridge Concept Competition Gold Prize, Japan, 1995

PUBLICATIONS
"Digital Tectonics," Book Review for AIA Young Architect's Forum Newsletter, December 2005
"Intelligent building technologies: Operable envelope design." Paper published in 2005 World Sustainable Building Conference Proceedings, with Dale Clifford, September 2005
"Mies in Berlin," Book Review for AIA Young Architect's Forum Newsletter, February 2004
Flavor newsletter (exploring gender and race in the architectural profession), Creator/Editor, Univ. of Oregon, 1995-1997

LECTURES AND CONFERENCE PARTICIPATION
"Culture and Design for Affordable Housing," Arizona Department of Housing workshop presentation, Tucson, AZ, 2008
"Affordable Housing Education," Arizona Department of Housing seminar presentation, Apache Junction, AZ, 2008
"Green in Affordable Housing," Arizona Department of Housing workshop presentation, Phoenix, AZ, 2008
World Sustainable Building Conference, poster presentation, Tokyo, Japan, 2005
Housing Design Symposium, "Energy Conservation" Plenary Session Co-Speaker, Tucson, AZ, 2005

EXHIBITIONS
Exhibit of selected design studio project at Portland Urban Design Center, Univ. of Oregon, 1997

RESEARCH & CREATIVE ACTIVITIES
Adaptive Reuse for affordable housing, 2007-current
Energy efficiency and water conservation technologies for affordable housing, 2007-08
Thesis research on outdoor thermal comfort and design for habitable roofs in hot-arid climates, University of Arizona, 2004-05
Impact of the built environment on nighttime sky quality, Tucson, AZ, 2004-05
Music composition and Architectural composition parallel theory studies, 1995-current
Pictorial Language (kanji) and influence on architectural design in Japanese culture, 1994-current

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Capstone Chair, Boyce Thompson Arboretum Multi-use Facility, student R. Enriquez, 2007-08
Capstone Committee Member, Green Spaces in Mixed-Use Buildings, student C. Payne, UA, Spring 2007
Studio Critic, (201, 402, and 5th year capstones), University of Arizona, 2006, 2007
Miramonte Neighborhood Overlay Zoning Design Charrette, participant, Tucson, AZ, September 2006
Association for Women Faculty, Graphic Design Volunteer, Univ. of Arizona, Fall 2005
Vernacular Architecture Forum, Volunteer, Tucson, AZ, April 2005
Sustainable Lighting Committee, Active Research Member, Tucson, AZ, 2004-2005

Rincon Heights Neighborhood Improvement Plan Implementation Team, Tucson, AZ, 2004-2005
Art Brown MOCA Tour, Docent, Tucson, AZ, December 2004
'Architalker' for the Center for Architecture, New York, NY, 2003-2004
Brooklyn Center for the Urban Environment Design Charrette, Co-Facilitator, Brooklyn, NY, March 2002
Historic Hollywood District Urban Design Charrette, participant, Portland, OR, June 1998
Habitat for Humanity construction volunteer, Portland, OR, Summer 1998

LICENSES & PRACTICE
Registered Architect: New York
NCARB
LEED AP
Principal, PTNY Design, Portland, Tucson, New York, 2008-
Associate, Rob Paulus Architect, Ltd., Tucson, AZ, 2005-2007
Associate, Ismael Leyva Architects, P.C., New York, NY, 1999-2004
Intermediate Architect, Arquitectonica/CPA, New York, NY, 1998-99
Junior Architect, Portland Community Design, Portland, OR 1998
Intern Architect, Nike Retail Design, Beaverton, OR, 1997-98

MELISSA KEGAN TOM
Adjunct Professor

CURRENT TEACHING
Arch. 101, Foundation Studio 1

EDUCATION
B. Arch., University of Arizona, Tucson, AZ, 2007

ACADEMIC EXPERIENCE
Adjunct Professor, School of Architecture, University of Arizona, 2007-Present

AWARDS AND HONORS
Provost Scholarship/President's Award for Excellence
Southern Arizona Regional Science and Engineering Fair, tuition waiver
AAFSAA MBNA/License Plate Scholarship
Platinum Scholarship
New World Scholars Awards
Dean's List with Distinction
Gordon Heck Memorial Scholarship
Scholarship to AIA Academy of Architecture for Health 2006 conference
Ware and Malcomb Architecture Scholarship
Alpha Rho Chi Medal

PUBLICATIONS

LECTURES AND CONFERENCE PARTICIPATION

EXHIBITIONS

RESEARCH & CREATIVE ACTIVITIES
University of Arizona Undergraduate Research Grant: Architecture's Influence on Alzheimer's

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE
Women in Science and Engineering, Community Board Member, 2007-Present
Partnership Forum, Urban Land Institute, 2008 to present
Southern Arizona Revit User's Group Liaison, 2007
American Institute of Architects Students, University of Arizona President, 2005-2007

PROFESSIONAL MEMBERSHIPS
AIA Associate
USGBC
Urban Land Institute, Young Leader

LICENSES & PRACTICE
LEED AP
The Architecture Company, Tucson, AZ, 2009 to present
Southern Arizona Hydrology Research Association, Tucson AZ, 2001

CHRISTOPHER D TRUMBLE
Lecturer

CURRENT TEACHING
Arc 221 Building Technology I: structures module
Arc 222 Building Technology II: structures module
Arc 321 Building Technology III: structures module
Arc 322 Building Technology IV: structures module
Arc 301 Design Studio: Land Ethic
Arc 302 Design Studio: Tectonics (coordinator)
Arc 452 Capstone: 5 chairmanships, 2 committee memberships
Arc 497u Geometry-Material-Ergonomics

EDUCATION
University of Pennsylvania, Master of Architecture 1993
University of Illinois UC, Bachelor of Science and Architectural Studies 1991
Ecole d'Architecture et Urbanisme / University of Illinois, Versailles, France 1989/90

ACADEMIC EXPERIENCE
Lecturer, School of Architecture, University of Arizona, 2004 present
Assistant Professor, School of Architecture, University of Arizona, 1999-2004
Visiting Assistant Professor, School of Architecture, Drury University, 1998-1999

AWARDS AND HONORS
Robert Giebner Commendation for Teaching – 2002: Outstanding teacher – Student designated
Outstanding Teacher Award – 2002: School of Architecture, CAPLA – Administration designated

PUBLICATIONS
"Cool Towers", Connector: A Forum for Teachers of Technology in Schools of Architecture, spring 2005; in collaboration with Nader Chalfoun
"Matter and Memory," Proceedings from the ACSA International Conference 2003, Helsinki Finland; in collaboration with Alvaro Malo
"Putting on a Show," *Interior Design Magazine*, March 2000, SFX Entertainment Corporate Headquarters, NYC, NY
Co-Design Architect, Gerner Kronick + Valcarcel Architects
"Castle in the Sky." *Architectural Digest Magazine*, November 1998, Private Penthouse Residence, NYC, NY
Job-Captain, Siris/Coombs Architects

LECTURES AND CONFERENCE PARTICIPATION
"Matter and Memory" – ACSA International 2003, Helsinki Finland: Paper presented and published in conference proceedings - Project in collaboration with Alvaro Malo.
"Harvesting Diagrams" with Ben Van Berkel, Caroline Bos, CALA University of Arizona – 1999: Coordinated and participated in symposium with Mark Roddy and Chris Taylor
Panel Discussion with Jean-Francois Blassel (RFR), CALA University of Arizona – 2000: In collaboration with Larry Medlin

EXHIBITIONS
Pentagon Memorial Competition, National Building Museum, Washington D.C. – 2002: Submitted entry in collaboration with John Folan. One of 75 submissions selected from a pool of 4000 to be exhibited – October 30th – November 9th 2002
Robert Le Ricolais "Visions & Paradox" National curator: Peter McCleary, CALA University of Arizona 2000: served as local curator and publication designer

RESEARCH & CREATIVE ACTIVITIES

ESRA [Envelope Systems Research Apparatus] – 2003-04 Co-investigator with Nader Chalfoun on project funded by a grant from Southwest Gas

Empirical Educational Methodologies for Structures in Architecture: Ongoing research facilitated by the structures modules in the Building Technology courses 1-4

Structures in Nature: Research of force dissipating / dynamic structural systems in Nature facilitated by the 461f *nature of structure* elective

Furniture: Ongoing research of furniture design and fabrication facilitated by the 497u *geometry-material-ergonomics* elective and personal/professional projects.

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

Rose Neighborhood Pedestrian Bridge, Tucson, AZ – 2005-07: Drachman Institute Project: Design of a pedestrian bridge and development of support materials to acquire funding. Project team: Doug Weibel, Ryan Meeks and Dale Clifford. Project received full funding ($300,000 in 2006)

Both Hands, Flagstaff, AZ –2003-04: Drachman Institute Project (CPDW): Master planning and schematic design of affordable housing development on six sites. Project team: Corky Poster, Eric Nebel and Alaxandra Pucciarelli.

Casa de Esperanza, Green Valley, AZ – 2001: Drachman Institute Project (CPDW): Master planning and schematic design of an addition and renovation for the *Casa de Esperanza* community center. In Collaboration with Siriporn Beidler.

MEP Student Center and EAC Conference rooms, College of Engineering, University of Arizona – 2000. 2400 ft^2 interior design of a minority student center consisting of collaborative work areas, reference library, computer stations and conference rooms. In Collaboration with Chet Ross.

Curriculum Committee, CALA, University of Arizona: 2001-present; co-chair 2008-2009

Building Technology Stream Coordinator, CALA, University of Arizona: elected 2001-present

Admissions Committee, CALA, University of Arizona: 2001-2007

Lab and Space Committee, CALA, University of Arizona: 1999-08, chair 2001-02, co-chair 2005-06

Accreditation Committee, CALA, University of Arizona: 2002-03, 2007-9

Capstone Coordination Committee, CALA, University of Arizona: 2000-07

School of Architecture's Director review committee: 2003-04

Events Committee, CALA, University of Arizona: 1999-00; chair

ACSA Faculty Councilor, CALA, University of Arizona: 2000-2002

AIAS Faculty Sponsor, CALA, University of Arizona: 2000-2002

Faculty Search Committee, CALA, University of Arizona: 2001-02, 2008-09

Faculty Advisor – Cliffhangers Climbing Club / ASUA: 2001-02

LICENSES & PRACTICE

Architectural Registration:
State of Arizona, Registration # 35373
State of Illinois, License # 001-015907 (inactive)

C Trumble Architect — Tucson, AZ, 1999-present (principal)
Folan Trumble Architects — Tucson, AZ 2003-present (principal)
Gerner Kronick + Valcarcel Architects — NYC, 1997-98 (project architect)
Point B Design — NYC, 1997 (project architect)
Siris Coombs Architects — NYC, 1993-1995 (job-captain)
Turner Architectural Associates — Kankakee, IL 1991-92 (intern)
Johnston Hultsch Architects — Kankakee, IL 1989-90 (intern)

CLAUDIA VALENT
Studio Instructor

CURRENT TEACHING
ARC 402 Design Studio VI: Urban Form

EDUCATION
Diploma in Architecture (equiv. M. Arch.), Universität Stuttgart, Germany, Stuttgart 2001
Visiting student, Hochschule der Kuenste, Germany, Berlin , 1996
Freshman, Faculty of Architecture. Zagrebacki Univerzitet. Croatia, Zagreb 1992-1993

ACADEMIC EXPERIENCE
Studio Instructor, School of Architecture, University of Arizona, 2008
Guest Critic, Design Reviews: GSD, UofA, 2003-2008

AWARDS AND HONORS
Diploma and Master's degree with distinction, Universität Stuttgart, Germany 2001

PUBLICATIONS
n/a

LECTURES AND CONFERENCE PARICIPATION
n/a

EXHIBITIONS
n/a

RESEARCH & CREATIVE ACTIVITIES
Master Plan Bahia Balandra. Mexico, 1st price , 2005
Stage Design, Athena Theater, Harvard University, 2004
Thesis research on the urban and architectural implications of death and dying in our society, thesis: *Hospice – creating an appropriate atmosphere for the last days of life*, Universität Stuttgart, Germany, 2001
Assistant management of the international theater convention in Stuttgart, 2000
Research, promotion and fundraising of innovative office concepts for the international furniture fair in Cologne. 1999-2000
Commission for the renovation of the university's foyer and auditorium renovation, Universität Stuttgart. Germany, 1998-1999

ACADEMIC, PROFESSIONAL & PUBLIC SERVICE
n/a

PROFESSIONAL MEMBERSHIPS
Architektenkammer Baden-Württemberg, NCARB, USGBC

LICENSES & PRACTICE
Architect-in-Training, Rick Joy Architects, Tucson, since 2004
Architectural Designer, Devanthéry and Lamunière, Geneva, Switzerland, 1997-1998, 2003
Independent Projects, since 1999
Diverse construction firms, 1993-1996

JASON O. VOLLEN
Assistant Professor, Full-Time

CURRENT TEACHING
ARC 202 Design Studio, Ergonomics
ARC 401 Design Studio, Technical Systems
ARC 481c Communicating Design Data
ARC 481a Communications Elective

EDUCATION
Master of Architecture, Cranbrook Academy of Art, Architecture Department, 1996.
Bachelor of Architecture, The Cooper Union for the Advancement of Science and Art Irwin S. Channin School of Architecture, 1994.

ACADEMIC EXPERIENCE
Assistant Professor, School of Architecture, University of Arizona, Fall 2003 through Spring 2008.
Visiting Assistant Professor. School of Architecture, Mississippi State University, August 1998-September 2001.
Assistant Instructor, School of Architecture, University of Detroit Mercy, Fall 1995, Fall 1996.
Assistant Instructor, Department of Architecture, Cranbrook Academy of Art, Fall 1996.

Visiting Critic, Columbia University, Summer 2002.
Visiting Critic, City College of New York, Spring 2002.
Visiting Critic, The Cooper Union for the Advancement of Science and Art, Spring 2002.
Visiting Critic, Pratt Institute, Spring 2000. Summer 2002.
Visiting Critic, University of Texas at Austin, Spring 2000.
Visiting Critic, Louisiana Technical University, Spring 2000.
Visiting Critic, Cranbrook Academy of Art, Department of Architecture, Fall 1996-1998.
Visiting Critic, University of Detroit Mercy, Fall 1995-1998.
Visiting Critic, University of Michigan, Ann Arbor, Fall 1996-1998.
Visiting Critic, Lawrence Technical University, Spring 1997.

AWARDS, HONORS AND EXHIBITIONS
Artists-in-Residence, Museum of Contemporary Art, Tucson, Arizona, 2007
Schillig Teaching Grant, principle investigator, 2000.
Mississippi American Institute of Architects design honor award, The Boys and Girls Club of Jackson Camp John I. Hay Pavilion, with David Perkes, Mark Vaughn, and Barak Erdim, 2000.
Faculty Exhibition, Mississippi State University, 1999.
The Observatory, Work of the Architects from the Cranbrook Architecture Office, Kingswood School, February 1998; collaboration with Alfred Zollinger, Sandra Wheeler, Mark Kolajedcheck, Douglas Pancoast, and Mike Tower.
Dan Hoffman and the Cranbrook Architecture Studio, Yale School of Architecture, March 1996.
Kent State University, student work of Evan Douglas, Fall 1995.

PUBLICATIONS
The End of the Line: An Elder Hostel for Water Colorists to Paint the Sunset, 23rd International Conference on the Beginning Design Student, Savannah, Georgia, 2007.
Digital Fabric: Generating Ceramic Catenary Networks, ACADIA, p. 48-55. Clifford, D., Vollen, J., Gindlesparger, M. (student advisee), Winn, K. (students advisee), 2007.
Xs: Big Ideas, Small Buildings, by Phyllis Richardson, Lucas Dietrich (Editor), Universe Books. November 2001.
Architectural Profile, work of Dan Hoffman and the Cranbrook Architecture Office, June 1998.
Multiples, work of the Cranbrook Architecture Studio, forthcoming.
Architectural Review, "Cranbrook Continuum," work of the Cranbrook Architecture Office, November 1997.
Space, third year undergraduate phenomenology analysis under Evan Douglas, June 1995.

LECTURES AND CONFERENCE PARTICIPATION
"Laboratory" Ineffable Conference. (invited lecture/essay, publication forthcoming) City College. New York. New York, 2007
"Digital Ceramics" Nova Scotia College of Art and Design, Halifax, Nova Scotia, 2007.
"The End of the Line: An Elder Hostel for Water Colorists to Paint the Sunset" 23 International Conference on the Beginning Design Student, Savannah, Georgia, 2007.
Digital Fabric: Generating Ceramic Catenary Networks, ACADIA, p. 48-55. Clifford, D., Vollen, J., Gindlesparger, M. (student advisee), Winn, K. (students advisee), 2007.

EXHIBITIONS

Pima Association of Governments Alternative Energy Exposition. Recent work in sustainable architecture, 2007.
2007 ACADIA Expanding Bodies conference (peer reviewed). Recent work in high performance concerete and ceramic masonry units, 2007.

RESEARCH & CREATIVE ACTIVITIES

Binary, Tucson, Arizona (Principal), 2007-2008 activities:
Wilson Residence 2, sustainable residence (permit in process), Tucson, Arizona.
Wilson Residence 1, sustainable residence (permitted), Tucson, Arizona.
Caesar Chavez Learning Community, 40,000 square foot sustainable charter school (design development), Tucson, Arizona.
[SEED] pod, prefabricated writer's studio (complete), Tucson, Arizona.
Sub-monitor, studio/library (complete), Tucson, Arizona.
Department of Energy/National Renewable Energy Laboratory, Solar Decathlon 2009 (coPI, $100,000. 40% effort. $100,000 matching pledge from AXRiSE), 2007.
Boston Society of Architects 2008 Research Grant (PI, $11,915, 100%), 2007
University of Arizona, Faculty Small Grant, (PI, $9,915, 90%), 2007.
"Laboratory: a materials primer," (working title) anthology in progress, 2007
"Surface Conscious: Emerging Material Technologies in Ceramic Skins." The Planetary Collegium's IXth International Research Conference: Consciousness Reframed, abstract submitted, 2007.
"Emerging Material Technology: The Ethic of Forming Logic," ACSA 96th Annual Meeting, session topic submission, 2007.

LICENSES & PRACTICE

Designer, Project Manager for Zaretsky Architect PC, November 2001-June 2002.
Designer in Residence for Jackson Community Design Center, Mississippi State University, May 1998-October 2001.
Project Designer, Fabricator, Foreman for Cranbrook Architecture Office, May 1995-September 1998.
Project Designer and Construction Manager for Dan Hoffman Studio, May 1998-September 1998.
Freelance Fabricator for Beverly Fishman Studio, Artist in Residence, Cranbrook Academy of Art, Painting Department, May 1996-Fall 1998.

BETH M. WEINSTEIN
Assistant Professor

CURRENT TEACHING
Arc 102 Foundation Design II (coordinator), Arc 102H Foundation Design Honors Section
Arc 422 Building Technology VI
Arc 497b Architecture + Choreography

EDUCATION
M. Arch., Columbia University, New York, 1990
BFA, Syracuse University, Syracuse, NY, 1985, magna cum laude

ACADEMIC EXPERIENCE
Assistant Professor, School of Architecture, University of Arizona, 2006-2008
Adjunct Associate Professor, GSAPP, Columbia University, 2007-2008
Adjunct Assistant Professor, GSAPP, Columbia University, 2000-2007
Adjunct Assistant Professor, School of Architecture, Pratt Institute, 2002-2005
Visiting Instructor, School of Architecture, Pratt Institute, 1999-2002
Visiting Instructor, School of Architecture, Parsons School of Design / New School, 2003-2008
Adjunct Assistant Professor, School of Architecture, Rensselaer Polytechnic Institute, 1997-1999

AWARDS AND HONORS
Artist in Residence, Moca:Tucson, as member of DCo*op, 2007-2009
Honorable Mention, Beyond the Gowanus Expressway - Revisioning Sunset Park, Int'l Competition, 2000
Honorable Mention, Silent Amplification Competition Exhibition, Int'l Design Competition, 1999
Artist in Residence, Casa de Velazquez, Madrid, Spain, through the Ministry of Education, France, 1994
The Young Architects Award + Exhibition, The Architectural League, NYC, NY, 1990

PUBLICATIONS
Flamand and his Architectural Entourage, *JAE*, Vol. 61:4, May 2008
Beyond Silent Running, in *Visionaries in the Margins: Proceedings from the ACSA National Conf.*, Houston, 2008
Thinking/Drawing from Peripheral Vision, in *Fresh Air: Proceedings from the ACSA National Conf.*, Philadelphia, 2007
Conduits + Communication, *JAE*, Vol. 56, no. 2, Nov. 2001

LECTURES AND CONFERENCE PARTICIPATION
"Reconfiguring Moses' Space," PSi#14 Conference, Copenhagen, August 2008
"Beyond Silent Running," ACSA National Conference, Houston, March 2008
Curator's Talk, Arid Zones / Zones Arides, Moca:Tucson, February 2008
"Thinking/Drawing from Peripheral Vision," ACSA National Conference, Philadelphia, March 2007
Artists Talk, Moca:Tucson, November 2007
"Practice + Agency", GSAPP, Columbia University, 2005
"Skins, Networks, Choreography, Landscapes," Universidad IberoAmericano, Mexico D.F., 2003
Beyond the Gowanus Expressway, Roundtable, the Van Alen Institute, Speaker, 2003
Progressive Architectural Practice, Rensselaer Polytechnic Institute, Symposium Chair + Speaker, 1998

EXHIBITIONS
Juried Exhibit, "First Step Housing Competition Exhibition", Common Ground / Architectural League, NYC, NY, 2003
Silent Amplification Competition Exhibition, Young Architects Forum, AIA National Convention Dallas, 1999
"Bathroom," Group Exhibition curated by Wayne Koestembaum, Thomas Healy Gallery, NYC, NY, 1999
Henry Urbach Architecture Gallery, Gramercy Int'l Contemporary Arts Fair, Miami, 1999
The Young Architects Award + Exhibition, The Architectural League, NYC, NY, 1990

RESEARCH & CREATIVE ACTIVITIES

Vision and visuality in architecture and representation. 2006-8

Building enclosures, particularly glass, translucent and inflatable materials; their technology, optical effects, cultural concepts of enclosure, and building facades as "backdrops" of the urban theater. 1990-2008

Architecture and Choreography: notation, form generation, collaborations, theater of private + public space, 1990-2008

Attempted Utopias: ecotopias, monasteries, artists' colonies, and futurist proposals. 2001-8.

Collaborations with visual and performance/performing artists

ACADEMIC, PROFESSIONAL, & PUBLIC SERVICE

Moca:Tucson, Curator of Arid Zones/Zones Arides, Exhibition of French and Swiss Artists, February 2008

DCo*op, Moca:Tucson, co-cordinator of Density Workshop, April/May 2008

University of Arizona, School of Dance: pro bono services to design sets and props, 2007, 2008.

University of Arizona: College of Architecture and Landscape Architecture: Computing Committee
School of Architecture: Graduate Executive Committee (elected), ACSA councilor (elected), Admissions Committee, Technology + Foundation Faculty Search Committees

Pratt Institute: 3rd Year Studio Coordinator, Ecole Speciale d'Architecture / Pratt Exchange Program Initiator and Coordinator, Technology Faculty Search, Peer Review, and Affordable Housing Grant Proposal Committees, 1999-2005

Rensselaer Polytechnic Institute: Lecture + Exhibition Committee Chair / Coordinator, Technology Search Committee, 1997-1999

PROFESSIONAL MEMBERSHIPS

Architectural League of New York, Van Alen Institute, Storefront for Art + Architecture, DCo*op/ Design Lab @ Moca:Tucson.

LICENSES & PRACTICE

Architect: New York, Arizona, NCARB

Principal, Architecture Agency, New York City, NY and Tucson, Arizona, 2002-2008

Partner, Riebe Weinstein Architecture, NYC, NY 1998-2002

Project Designer, Architecture Jean Nouvel, Paris, France, 1992-1997

Partner, A(d+V)u^{2}z, NYC, 1988 - 1990

Project Designer, Asymptote, New York, 1988 – 1990

Designer, Richard Meier + Partners, NYC, 1989

Intern, Tod Williams, Billie Tsien + Associates, NYC, 1988

Intern, Torres Tur y Martinez LaPeña, Barcelona, 1997

MATIAS ZEGERS
Visiting Studio Instructor

CURRENT TEACHING
ARC 402 Design Studio VI: Urban Form

EDUCATION
B. Arch. Pontificia Universidad Catolica de Chile, Santiago, Chile 2001

ACADEMIC EXPERIENCE
Guest Critic, Design Reviews: UofA, 2006-2007

AWARDS AND HONORS
N/A

PUBLICATIONS
Revista ARQ 45, Santiago, Chile, 2000

LECTURES
N/A

EXHIBITIONS
Copper Bath pavilions, Bienal XII, Santiago, Chile 2000
Proposals for Costanera Norte, Bienal XI, Santiago, Chile 1997

RESEARCH & CREATIVE ACTIVITIES
N/A

ACADEMIC, PROFESSIONAL & PUBLIC SERVICE
N/A

PROFESSIONAL MEMBERSHIPS
N/A

LICENSES & PRACTICE
Architect in Training, Rick Joy Architects, Tucson, Arizona, 2005-
Principal, Fabri + Zegers Arquitectos, Santiago, Chile, 2000-2005
Architect associate dRN Arquitectos, Santiago, Chile, 2004
Architect in Training, Flano, Nunez, Tuca Arquitectos, Santiago, Chile, 2003
Architect in Training, Undurraga & Deves Arquitectos, Santiago, Chile, 2000

4.5 *VISITING TEAM REPORT* FROM PREVIOUS VISIT

The University of Arizona
College of Architecture and Landscape Architecture (CALA)

Visiting Team Report

Bachelor of Architecture (5 years)

The National Architectural Accrediting Board
September 17, 2003

The National Architectural Accrediting Board (NAAB), established in 1940, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from an NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.

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I. Summary of Team Findings

1. Team Comments

The Team finds the following conditions and characteristics related to the accredited Bachelor of Architecture program at the University of Arizona, School of Architecture (UA SOA) within the College of Architecture and Landscape Architecture (CALA). The program is comprehensive, well lead, energetically taught, enthusiastically regarded by students, and supported by administration and the university. The following specific comments relate to three broad categories of consideration.

A. The People

Administration: The Team expresses appreciation to President Peter Likins and Executive VP/Provost George Davis for the continued support of the SOA and its programs during the challenging state budget deliberations over the past six months. In fact, the rescheduled timing of this accrediting visit is in direct response to the need to restructure the college during the Spring/Summer of 2003 in response to legislatively imposed budget limitations. Dean Richard A. Eribes, Acting Dean Charles (Corky) Poster, and Director Alvaro Malo have responded to the university wide "Focused Excellence" initiative in exhibiting untiring commitment to education, the students, and SOA's reconfigured program, all of which are executed in a positive relationship to the community and the profession.

Faculty: Over the past several years the composition of the faculty has seen a transformation with the retiring of a number of tenured individuals who in turn have been replaced by new educators resulting in a reenergized total faculty. Both track and tenured faculty are exceptionally talented, are devoted to the restructured SOA program and pedagogy, and provide an educational setting balanced in practice and academic emphasis. The faculty and administrative staff are both seen as collegial groups with no individual or faction seen as exercising unjustified ownership of any program component or feature.

Students: The students of the SOA are an engaged and articulate group who value and enthusiastically pursue their educational opportunity at UA. They enjoy a positive relationship with faculty and this supportive environment is well suited to meeting individual needs as well as providing the opportunity for feedback to faculty regarding course content. There is no formally recognized architectural student organization, and as a result, student representation on SOA and UA committees is left to the discretion of the faculty and administration. The students as a group are proud of their relation to the SOA and its program.

B. The Program

Curriculum: Following the UA in its mission of "Focused Excellence", the SOA bases its program on a triad of foci: teaching, research, and service and the curriculum itself is an ensemble of four subject matters: technology, theory and history, communication methods, and professional practice. The curriculum is delivered via a balance of classroom, laboratory, and studio settings. The laboratory element and research of materials and assemblies are noteworthy, which in turn help to foster the development of critical thinking. All of these are clearly areas of excellence in the program. Notwithstanding these qualities, there remains room for improvement in consistently integrating the technical course content into studio design projects.

Enrichment: The program has developed a City of Tucson relationship in both its Rio Nuevo Downtown Studio and the Community Design Workshop. The guest lecture series includes a

recognized roster of prominent professionals, scientists, authors, and artists both related and unrelated to the field of architecture. There exist noteworthy international/exchange study programs, but each can be strengthened as relationships are better established and students recognize their availability. Similarly, interdisciplinary programs within the UA can be made stronger. The UA budget-imposed-restructuring of the college resulted in the unfortunate elimination of the School of Planning as an adjunct enrichment discipline. Although a part of CALA, the School of Landscape Architecture is remotely located which erodes its SOA program enrichment potential.

C. The Facility

Building Program: The greatest and most obvious shortcoming of the UA SOA program is the limitation imposed by its physical plant. This condition was cited in the 1998 VTR and it remains critical. The 5 year interval without remedial action is due in a large part to capital budget limitations and the mandated restructuring of the College imposed by the Arizona Legislature and the UA. Further, the condition has been exacerbated by the simple passage of time and no meaningful interim improvements have been accomplished while anticipating the promised expansion. UA administration pledges that capital funding now appropriated is firmly committed and will produce a near doubling of the SOA area currently existing. Programming, planning and design activity tabled at the time of CALA restructuring is set to recommence with anticipated occupancy of the expanded facilities within the expected duration of traditional design and construction. The intended expansion will then house all SOA classroom, studio, and laboratory components and additionally provide for the accommodation of the School of Landscape Architecture. It is *absolutely essential* that this capital expansion be accomplished with no further delay.

Existing Plant: The current facility is taxed beyond its practicable ability to properly house the current program. Observations by the team suggest that maintenance and cleaning of some portions of the facilities could be improved. Further, imposing the responsibilities for overseeing maintenance and operations of the facility on architectural faculty (as opposed to administrative staff) erodes the highest and best use of faculty.

2. Progress Since the Previous Site Visit

Criterion 4: *Be aware of the diversity of architectural history and traditions throughout the world.* Previous Team Report: *The required history courses 324/34 are titled history and Western Civilization and the history electives are also Western in their focus. Diverse, global electives offered throughout the university in other disciplines and elective travel programs and lectures in the CoA are not assured to be taken by all students in the architecture program.*

Criterion 4 in the current "1998 Guide to Student Performance and Criteria" ("Guide") is now different. The previous intent is now assumed to be found in Criterion 11: Non-Western Traditions (Awareness). Evidence of satisfaction of this criterion is found in the restructured curriculum with required courses in World History, Modern History, and Theory and Principles of Urban Design.

Criterion 8: *Understand how individuals and groups of differing gender, race, ethnic backgrounds, and socioeconomic status respond to and affect their context.* Previous Team Report: *Elective studio options and one required seminar cover this material, but from the evidence and course descriptions, this is not a criterion at which all students appear to be proficient.*

Evidence of satisfaction of this criterion is found in the restructured curriculum with required courses in Design Studio, Architectural Programming, World History, Modern History and Theory and Principles of Urban Design.

Criterion 13: *Understand the ecological impact of buildings and their occupants, including their influence on the renewability of the environment.* Previous Team Report: *There is strong awareness of natural and ecological forces and impacts, but renewability did not appear to be covered in the required courses.*

Evidence of satisfaction of this criterion is found in the restructured curriculum with required courses in Building Technology and Design Studio.

Criterion 24: *Understand the basic elements, organization, and design of mechanical, electrical, plumbing, communication, security, and vertical transportation systems.* Previous Team Report: *There are solid courses in mechanical, plumbing, and electrical systems; the deficiencies occur in the proficiency in communication, security, and vertical transportation systems at the level indicated.*

The content of former Criterion 24 is now assumed to be included in "Guide" Criterion 21: Building Service Systems (Understanding). Evidence of satisfaction of this criterion is found in the restructured curriculum in required courses in Design Studio, Technical Systems, and Building Technology.

Criterion 27: *Understand the problems related to the use of hazardous and toxic materials in new and existing buildings.* Previous Team Report: *The team did not find evidence that this was adequately covered.*

The content of former Criterion 27 is now assumed of be included in "Guide" Criterion 25: Building Materials and Assemblies (Understanding). Evidence of satisfaction of this criterion is found in the restructured curriculum with required courses in Building Technology, Design Studio, and Tectonics.

Criterion 30: *Be able to use architectural history and theory in the critical observation and discussion of architecture and bring an understanding of history to bear on the design of buildings and communities.* Previous Team Report: *History and theoretical premises underlying architecture are presented in the curriculum, but facility to use this material at the practicable level of performance did not seem apparent across all levels of the work.*

The content of former Criterion 30 is now assumed to be included in "Guide" Criterion 9: Use of Precedents (Ability). Evidence of satisfaction of this criterion is found in the restructured curriculum with courses in Design Studio, Tectonics, Building Technology, Theory and Principles of Urban Design, and Capstone.

Criterion 34: *Be able to apply the principles that underlie the design and selection of life safety systems in the general design of buildings and their subsystems.* Previous Team Report: *There are very good code and material assembly courses, and there is a definite awareness of relevant systems and concepts. Proficiency at the level indicated by the criterion is not in evidence however.*

The content of former Criterion 34 is now assumed to be included in "Guide" Criterion 19: Life Safety Systems (Understanding). Evidence of satisfaction of this criterion is found in the restructured curriculum with courses in Design Studio, Technical Systems, and Building Technology.

Condition 3.10 Physical Resources (Office Space). Previous Team Report: *Offices are shared by two faculty members and do not meet minimal standards.*

This condition and other physical plant limitations continue to exist and collectively are a serious deficiency. For further observations of this condition see descriptive information elsewhere in this VTR under Team Comments, The Facility (p. 2) and Condition 7: Physical Resources (p. 9).

3. Conditions Well Met

Condition 1.1	Architecture Education and the Academic Context	p. 5
Condition 1.5	Architecture Education and Society	p. 7
Criterion 12.3	Research Skills	p. 11
Criterion 12.4	Critical Thinking Skills	p. 11
Criterion 12.25	Building Materials and Assemblies	p. 15

4. Conditions Not Met

Condition 3	Public Information	p. 8
Condition 7	Physical Resources	p. 9
Condition 11	Professional Degrees and Curriculum	p. 10
Criterion 12.28	Technical Documentation	p. 16
Criterion 12.29	Comprehensive Design	p. 16

5. Causes of Concern

In addition to the Team's comments contained in Section 1 Summary of Team Findings (p.1), the Program Response to the NAAB Perspectives (pp. 5-7), and the Conditions "Not Met", here summarized is a tabulation of the Team's major reservations and qualifications related to "Met" Conditions and Criteria. Please refer to the commentary as presented for each topic on page numbers as noted:

Condition 5	Human Resources	p. 8
Condition 8	Information Resources	p. 9
Criterion 12.26	Building Economics and Cost Control	p. 16
Criterion 12.27	Detailed Design Development	p. 16
Criterion 12.31	The Legal Context of Architectural Practice	p. 17
Criterion 12.37	Ethics and Professional Judgment	p. 18

II. Compliance with the Conditions for Accreditation

1. Program Response to the NAAB Perspectives

Programs must respond to the relevant interests of the five constituencies that make up the NAAB: education (ACSA), members of the practicing profession (AIA), students (AIAS), registration board members (NCARB), and public members.

1.1 Architecture Education and the Academic Context

The program must demonstrate that it both benefits from and contributes to its institutional context.

Met	Not Met
[X]	[ ]

In July 2003 the College of Architecture, Planning, and Landscape Architecture (CAPLA) was restructured as the College of Architecture and Landscape Architecture (CALA). The UA, a Research I Institution, supports the rigorous, high quality Bachelor of Architecture program, which is driven by a hands-on laboratory learning pedagogical approach.

CALA and SOA have demonstrated a leadership role in the outreach responsibility of the University through the School's Community Design and Planning Workshop which undertakes approximately twenty four projects per year for economically and socially disadvantaged communities. Students, faculty, and the community benefit from this research and social responsibility endeavor.

Another community outreach effort is the Downtown Studio involvement in providing preliminary architecture and urban design studies for the Rio Nuevo Multipurpose Facilities District, a result of the "Memorandum of Understanding" between the University of Arizona and the City of Tucson. The SOA is responsible for coordinating the commitment of providing research and design investigations over the next ten years.

The SOA's mission emphasis on interdisciplinary collaboration has been a major criterion in the new faculty hiring, design of the building addition, development of interdisciplinary coursework, and initiation of regional and international liaisons. In addition the SOA has developed a recognized lecture program which includes presentations from the faculty of science disciplines as well as architects, poets and artists.

The House Energy Doctor Program, the Drachman Institute of for Land and Regional Development Studies, and the Preservation Studies Program, demonstrate the SOA's involvement in the University research mission.

1.2 Architecture Education and Students

The program must demonstrate that it provides support and encouragement for students to assume leadership roles during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

Met	Not Met
[X]	[ ]

Students at the UA SOA enjoy a strong relationship with their instructors. The positive connection between faculty members and students produces a supportive environment in which attention is given to individual student needs and student feedback is taken into consideration when developing course content. In addition, some students have been able to cultivate their own leadership skills through the outreach opportunities and hands-on learning exercises facilitated by the faculty. Despite the support and encouragement of a diverse and energetic faculty and a growing trend toward gender balance, there remains a low percentage of minorities within the student body. This lack of diversity does not appear to be a function of a lack of tolerance. In fact, the faculty embraces cultural differences and strives to include even more international exposure into the curriculum.

Student advising is effectively provided through the Assistant Dean, Academic Advisor and Faculty Mentors. With the recent transition to a new curriculum and the reality of the admission review between the first and second year of the program, there have been cases of inconsistency in demands upon the students. However, in general, the system of academic advising and the University-wide services for student improvement provide adequate assistance to those students in need.

While there exists of a sense of cohesion and leadership among the student body, there is no formal organized student group present in SOA. As a result, necessary formal student representation on School committees is left to the discretion of the faculty and administration. While these entities are generally inclusive of students in formal decision-making, the current situation does not afford all possible opportunities for students to develop necessary leadership skills during their years of education. In addition, there is not a formal connection between the student body and local practitioners in Tucson. A very recent renewal of interest in the AIAS has the potential to strengthen these areas of weakness in the future.

1.3 Architecture Education and Registration

The program must demonstrate that it provides students with a sound preparation for the transition to internship and licensure.

Met	Not Met
[X]	[ ]

The program's curriculum clearly provides students with the education necessary for the sound foundation for transition through internship to registration. In addition to basic coursework, students are taught responsibilities relating to health safety and welfare and for professional practice and professional conduct.

By the time of graduation, students are familiar with the Intern Development Program (IDP) required for licensure. That information is provided in the second half of the 5th year which may not be sufficiently timely, since so many students start working in architectural offices before graduation.

A significant percentage of the program's faculty is licensed, and most students express the intent to become licensed themselves. The Team believes that graduates of the UA SOA are prepared well for the rigors of practice in the ever-changing professional environment they will encounter following school.

1.4 Architecture Education and the Profession

The program must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.

Met	Not Met
[X]	[ ]

The program clearly demonstrates that its students are well prepared to enter the profession. A talented multi-cultural faculty, interacting with a reasonably diverse student body, promotes an open, accepting way of science based problem solving in a collegial educational environment.

The Community Outreach Program and the Design-Build Studio provide opportunities for student contact with actual clients, governmental officials and industry professionals. The incorporation of regulatory agency requirements are an integral part of this work. The problem defining, laboratory/research based curriculum emphasizes process and critical thinking applicable to a wide range of professional situations.

As further evidence of professional preparedness, recent graduates have participated in, and won, important national and international design competitions.

1.5 Architecture Education and Society

The program must demonstrate that it not only equips students with an informed understanding of social and environmental problems but that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

Met	Not Met
[X]	[ ]

Through the CALA/SOA community outreach program students gain a deep understanding of social issues.

The Rio Nuevo Downtown Studio, under a 10 year agreement with the city of Tucson, provides opportunities for studying various aspects of urban renewal within and adjacent to the urban center. Additionally, the Community Design Workshop involves students in all aspects of a variety of low income projects.

The concept of ethical land use is introduced early in the curriculum through specific course work intended to make environmental response a fundamental aspect of each design.

2. Program Self-Assessment

The program must provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan.

Met	Not Met
[X]	[ ]

3. Public Information

The program must provide clear, complete and accurate information to the public by including in its catalog and promotional literature the exact language found in appendix A-2, which explains the parameters of an accredited professional degree program.

Met	Not Met
[ ]	[X]

The program has generally moved from printed promotional and catalog material to on-line electronic sources. The last printed copies of such material (Undergraduate Catalog 1998-99 and Graduate Catalog 2001-02) do not contain the NAAB required information. Current electronic documents do contain the NAAB information, but in a version that is several years old and not consistent with the statement as contained in NAAB 1998 Conditions and Procedures. Evidence is not compelling that all faculty and incoming students are furnished with a copy of the 1998 Guide to Student Performance Criteria.

4. Social Equity

The program must provide all faculty, students, and staff—irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation—with equitable access to a caring and supportive educational environment in which to learn, teach, and work.

Met	Not Met
[X]	[ ]

5. Human Resources

The program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient faculty complement, an administrative head with enough time for effective administration, administrative and technical support staff, and faculty support staff.

Met	Not Met
[X]	[ ]

Each full-time faculty member is required to teach two courses per semester, requiring approximately 60% of their time. The balance of faculty time is spent on research and service. The split between these two activities is not equal for all faculty members, which may hinder opportunities for faculty tenure and promotion.

6. Human Resource Development

Programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program.

Met	Not Met
[X]	[ ]

The program has a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program. In particular, the program of guest lecturers is outstanding in quality and well attended by both students and faculty.

There is some concern regarding insufficient time for faculty to perform research due to demanding course loads and other academic requirements.

7. Physical Resources

The program must provide physical resources that are appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning: office space for the exclusive use of each full-time faculty member; and related instructional support space.

Met	Not Met
[ ]	[X]

The current facility is taxed beyond its practicable ability to properly house the current program. Design studio space is undersized by roughly a factor of two, lecture and seminar space is minimal and must be shared with other disciplines, and faculty offices originally designed to house one person now typically house two. There is inadequate studio layout and pin-up space and laboratories are remotely located several blocks away from the main facility. Model building activities frequently occur in an outdoor area adjacent to the building and student project reviews are typically held in corridor space.

In short, the success of the UA SOA program is occurring not because of the facilities, but virtually in spite of them.

8. Information Resources

The architecture librarian and, if appropriate, the staff member in charge of visual resource or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library.

Met	Not Met
[X]	[ ]

Although the budget of the Architecture Library is increasing annually, there is a serious concern that physical and fiscal constraints have led to inadequate library hours that limit access to this resource. In addition, new multiple locations of the holdings of the Architecture Library have significantly reduced convenience of this access.

9. Financial Resources

Programs must have access to institutional support and financial resources comparable to those made available to the other relevant professional programs within the institution.

Met	Not Met
[X]	[ ]

The capital budget for facility expansion is addressed under Team Comments, The Facility (p. 2) and Condition 7 Physical Resources (p. 9).

10. Administrative Structure

The program must be a part of, or be, an institution accredited by a recognized accrediting agency for higher education. The program must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programs in the institution and sufficient to assure conformance with all the conditions for accreditation.

Met	Not Met
[X]	[ ]

11. Professional Degrees and Curriculum

The NAAB only accredits professional programs offering the Bachelor of Architecture and the Master of Architecture degrees. The curricular requirements for awarding these degrees must include three components—general studies, professional studies, and electives—which respond to the needs of the institution, the architecture profession, and the students respectively.

Met	Not Met
[ ]	[X]

The program requires a minimum of 168 credits for graduation. Of these, 122 credits are in architecture courses, which include the Foundation Studios ARC 101 and 102, in the first year of the program. The remaining 46 credits are in general studies and non-architecture electives.

The required minimum architecture credits in the program are 72.6% of the total credits required. NAAB criteria require that no more than 60% of a student's required post-secondary education be devoted to professional studies. The 72.6 actual percentage means that students have little flexibility to pursue special interests or develop academic concentrations beyond the required architectural courses.

This condition was also "Not Met" at the time of the 1998 Accreditation Visit. At that time 69.5% of the required curriculum was in architectural courses.

12. Student Performance Criteria

The program must ensure that all its graduates possess the skills and knowledge defined by the performance criteria set out below, which constitute the minimum requirements for meeting the demands of an internship leading to registration for practice.

12.1 Verbal and Writing Skills

Ability to *speak and write effectively on subject matter contained in the professional curriculum*

Met	Not Met
[X]	[ ]

12.2 Graphic Skills

Ability to *employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process*

Met	Not Met
[X]	[ ]

There is evidence of strong graphic skills but they are inconsistent and often do not demonstrate the students' ability to fully represent the content and thought behind the work produced. In many cases, graphic representation can be unclear because there is an absence of drawing labels and notes.

12.3 Research Skills

Ability to *employ basic methods of data collection and analysis to inform all aspects of the programming and design process*

Met	Not Met
[X]	[ ]

The program offers students valuable laboratory experiences to investigate materials and their characteristics, which is an exemplary opportunity for students in an undergraduate program.

12.4 Critical Thinking Skills

Ability to *make a comprehensive analysis and evaluation of a building, building complex, or urban space*

Met	Not Met
[X]	[ ]

The program is commendable in the rigorous pursuit of research and laboratory investigation which in turn shapes and informs the students' problem solving abilities.

12.5 Fundamental Design Skills

Ability to *apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components*

Met	Not Met
[X]	[ ]

12.6 Collaborative Skills

Ability to *identify and assume divergent roles that maximize individual talents, and to cooperate with other students when working as members of a design team and in other settings*

Met	Not Met
[X]	[ ]

12.7 Human Behavior

Awareness of *the theories and methods of inquiry that seek to clarify the relationships between human behavior and the physical environment*

Met	Not Met
[X]	[ ]

12.8 Human Diversity

Awareness of *the diversity of needs, values, behavioral norms, and social and spatial patterns that characterize different cultures, and the implications of this diversity for the societal roles and responsibilities of architects*

Met	Not Met
[X]	[ ]

12.9 Use of Precedents

Ability to *provide a coherent rationale for the programmatic and formal precedents employed in the conceptualization and development of architecture and urban design projects*

Met	Not Met
[X]	[ ]

12.10 Western Traditions

Understanding of *the Western architectural canons and traditions in architecture, landscape, and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them*

Met	Not Met
[X]	[ ]

12.11 Non-Western Traditions

Awareness of *the parallel and divergent canons and traditions of architecture and urban design in the non-Western world*

Met	Not Met
[X]	[ ]

12.12 National and Regional Traditions

Understanding of *the national traditions and the local regional heritage in architecture, landscape, and urban design, including vernacular traditions*

Met	Not Met
[X]	[ ]

The work of the Rio Nuevo Downtown Studio demonstrates students' understanding of the rich historic vernacular of the region as well as their ability to transport and apply these influences to their other projects in a contemporary and creative manner.

12.13 Environmental Conservation

Understanding of *the basic principles of ecology and architects' responsibilities with respect to environmental and resource conservation in architecture and urban design*

Met	Not Met
[X]	[ ]

Research investigations have supported the program's strong emphasis on environmental concerns and issues. These include passive climate control systems particularly appropriate in the Sonoran region and design-build studios using straw bale and rammed earth construction.

12.14 Accessibility

Ability to *design both site and building to accommodate individuals with varying physical abilities*

Met	Not Met
[X]	[ ]

12.15 Site Conditions

Ability to *respond to natural and built site characteristics in the development of a program and design of a project*

Met	Not Met
[X]	[ ]

Student projects clearly exhibit an understanding of the unique aspects of the Sonoran region.

12.16 Formal Ordering Systems

Understanding of *the fundamentals of visual perception and the principles and systems of order that inform two- and three-dimensional design, architectural composition, and urban design*

Met	Not Met
[X]	[ ]

12.17 Structural Systems

Understanding of *the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range, and appropriate applications of contemporary structural systems*

Met	Not Met
[X]	[ ]

The program's emphasis on structural modeling through laboratory experiences leads to a thorough understanding of the structural behavior of materials. Laboratory activities are high in content and quality but evidence is inconsistent that discoveries are carried forward to studio design projects.

12.18 Environmental Systems

Understanding of *the basic principles that inform the design of environmental systems, including acoustics, lighting and climate modification systems, and energy use*

Met	Not Met
[X]	[ ]

With the exception of skillful integration of active/passive energy strategies, student projects generally do not demonstrate comprehensive understanding of other environmental systems.

12.19 Life-Safety Systems

Understanding of *the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems*

Met	Not Met
[X]	[ ]

12.20 Building Envelope Systems

Understanding of *the basic principles that inform the design of building envelope systems*

Met	Not Met
[X]	[ ]

12.21 Building Service Systems

Understanding of *the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems*

Met	Not Met
[X]	[ ]

Evidence is lacking of an understanding of the integration of various building systems which inform the design solution.

12.22 Building Systems Integration

Ability to *assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design*

Met	Not Met
[X]	[ ]

Through the use of field trips (e.g. Salk Institute), the analysis of case studies, construction of detailed models and other explorations, ARC 401provides unusual opportunities for students to gain systems integration knowledge.

12.23 Legal Responsibilities

Understanding of *architects' legal responsibilities with respect to public health, safety, and welfare; property rights, zoning and subdivision ordinances; building codes; accessibility and other factors affecting building design, construction, and architecture practice*

Met	Not Met
[X]	[ ]

12.24 Building Code Compliance

Understanding of *the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure*

Met	Not Met
[X]	[ ]

12.25 Building Materials and Assemblies

Understanding of *the principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies*

Met	Not Met
[X]	[ ]

The Team was impressed by the research aesthetic imparted through the experimental nature of the material labs and the testing of ideas in the design-build studio. This criterion is met with a level of excellence because of the extensive laboratory opportunities and the hands on experience of design-build courses resulting in student built projects.

12.26 Building Economics and Cost Control

Awareness of *the fundamentals of development financing, building economics, and construction cost control within the framework of a design project*

Met	Not Met
[X]	[ ]

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness". Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

12.27 Detailed Design Development

Ability to *assess, select, configure, and detail as an integral part of the design appropriate combinations of building materials, components, and assemblies to satisfy the requirements of building programs.*

Met	Not Met
[X]	[ ]

There are solid courses in materials and components. Proficiency in communicating configurations and assemblies to satisfy *building programs* is not fully evident for all students in the single course cited as meeting this criterion. Contributing to this condition is the fact that students are permitted choices in the focus of their investigation which might not include building programs.

12.28 Technical Documentation

Ability to *make technically precise descriptions and documentation of a proposed design for purposes of review and construction*

Met	Not Met
[ ]	[X]

Evidence is lacking that each student, working in teams of six, acquires the ability to produce a complete set of technical documents.

12.29 Comprehensive Design

Ability to *produce an architecture project informed by a comprehensive program, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the program's design criteria*

Met	Not Met
[ ]	[X]

Because of the variable scope and scale of individual studio projects, evidence is lacking that every student meets this criterion. The Capstone Studio, cited as playing a major role in meeting this criterion, allows a student to select a highly theoretical or

philosophical problem with no assurance that they have, or will, complete a comprehensive architecture design problem within the 5 year program's duration.

12.30 Program Preparation

Ability to *assemble a comprehensive program for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria*

Met	Not Met
[X]	[ ]

12.31 The Legal Context of Architectural Practice

Awareness of *the evolving legal context within which architects practice, and of the laws pertaining to professional registration, professional service contracts, and the formation of design firms and related legal entities*

Met	Not Met
[X]	[ ]

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness". Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

12.32 Practice Organization and Management

Awareness of *the basic principles of office organization, business planning, marketing, negotiation, financial management, and leadership, as they apply to the practice of architecture*

Met	Not Met
[X]	[ ]

12.33 Contracts and Documentation

Awareness of *the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service*

Met	Not Met
[X]	[ ]

12.34 Professional Internship

Understanding of *the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers*

Met	Not Met
[X]	[ ]

12.35 Architects' Leadership Roles

Awareness of *architects' leadership roles from project inception, design, and design development to contract administration, including the selection and coordination of allied disciplines, post-occupancy evaluation, and facility management*

Met	Not Met
[X]	[ ]

12.36 The Context of Architecture

Understanding of *the shifts which occur—and have occurred—in the social, political, technological, ecological, and economic factors that shape the practice of architecture*

Met	Not Met
[X]	[ ]

12.37 Ethics and Professional Judgment

Awareness of *the ethical issues involved in the formation of professional judgments in architecture design and practice*

Met	Not Met
[X]	[ ]

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness". Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

III. Appendices

Appendix A: Program Information

1. History and Description of the Institution

The following text is taken from the 2002 University of Arizona Architecture Program Report:

Founded in 1885 by an act of the thirteenth Territorial Legislature, the University was created with an appropriation of $25,000 but no land. Two gamblers and a saloon-keeper donated forty acres of desert as a site. The first building was erected in 1891 and provided classrooms and living quarters for thirty-two students and six faculty members. Now known as Old Main, that original building and the older portion of the Campus immediately to the west of Old Main have been listed in The National Register of Historic Places.

The University of Arizona is designated as the Land Grant University for the State of Arizona. The first Baccalaureate degrees were conferred in 1895, the first Masters degrees in 1903 and the first Doctorates in 1922. At that time Agriculture and Mines were the only colleges. In 1915 the University reorganized into 3 Colleges: Letters, Arts and Sciences; Mines and Engineering; and Agriculture. Subsequent additions were Education (1922); Law (1928); Fine Arts (1934); Business and Public Administration (1944); Pharmacy (1949); Medicine (1961); Nursing (1964); ARCHITECTURE (1964); Earth Sciences, later incorporated into Engineering (1971); Renewable Natural Resources (1974); Health (Related) Professions (1977); Arizona International College (1994); Honors College (1999); and Public Health (2000). Since 1980 there has been significant reorganization of Schools and Colleges. Currently the University offers 121 undergraduate, 114 masters, 82 doctoral, 4 specialist, and 3 first-professional degree programs through sixteen Colleges and eight Schools. In FY 2001, 4922 Baccalaureate 1274 Master's, 359 Ph.D.s, and 311 first professional degrees were awarded.

Today the University of Arizona is internationally recognized as a center of academic excellence and research, ranking as one of the top 20 research universities in the nation (11th among public universities and 16th among all institutions in the amount of research and development funding available - $345,000,000 in FY2000). It is one of about 60 select institutions recognized by membership in the Association of American Universities. The University Library is ranked 27th in the nation among major research libraries.

Enrollment in Fall 2001 was 35,747 (32,870 FTE students) including 27,532 undergraduates, 7,087 Graduate, 718 First-Professional, and 410 Medicine students from every state and 124 foreign countries. The University currently employs 13,918 faculty and staff members.

Geographically, the University includes the Tucson campus, grown from the original 40 acres of the 1890's to 356 acres and 175 buildings, and the Arizona Health Sciences Center, which includes the University Medical Center and University Physicians. It also reaches people throughout the state by encompassing the Science and Technology Park; the Cooperative Extension Service with locations throughout Arizona; the Phoenix campuses; and UA South, a branch campus in Sierra Vista.

The University is maintained by funds appropriated by the State of Arizona and the United States government, and by fees and collections including private grants from many sources.

2. Institutional Mission

The following text is taken from the 2002 University of Arizona Architecture Program Report:

As a public land-grant institution, the mission of the University of Arizona is "*To discover, educate, serve and inspire.*" The University prepares students for a diverse and technological world while improving the quality of life for the people of Arizona, the nation, and the world. The University of Arizona is among America's top research universities (based on NSF total research expenditure data). Compared to other top research universities, the University of Arizona is unusually accessible to students of modest means and wide-ranging backgrounds. This is a place where every student is given the opportunity to reach high goals, and many students and faculty reach the very highest levels of excellence.

In the quest of its mission the University pursues the vision of a preeminent student-centered research university. President Peter Likins states, "The University of Arizona strives for the highest degree of excellence possible in the discovery of new knowledge and new forms of expression while providing its students and its wider communities with the best possible access to the fruits of those discoveries in ways the invigorate, empower, and inspire all its participants toward life-long learning."

- student-centered research university is a place of learning and discovery where students:
- have access to world-class faculty and research facilities.
- will be exposed to leading-edge scholarship integrated into the curriculum throughout their educational experience.
- can expect individual and small-group educational experiences.
- have opportunities for learning beyond the classroom.
- can expect to be challenged to advance, grow, and achieve.
- will find instructional technology used to support different learning styles.
- will engage in and be members of a diverse community.
- will find an atmosphere of mutual respect and responsibility.
- student-centered research university is also a place of research, creative activity, and collaborative relationships where:
- researchers are valued for the important contributions they make to the advancement of learning, creative expression, scientific knowledge, and quality of life.
- collaborative relationships across campus disciplines, institutions, economic entities, and community boundaries are the rule rather than the exception.
- researchers (scientists, artists, and scholars) can expect the equipment, facilities, and resources needed to advance premier work.

- learning through research, teaching, and collaborative relationships is so well integrated that it is impossible to advance one element without advancing all the rest.
- research is important to the University's ability to attract, retain, and educate students at all levels.

3. Program History

The following text is taken from the 2002 University of Arizona Architecture Program Report:

A modest program in architectural engineering at the University of Arizona was offered by the Department of Civil Engineering from 1915 to 1918. In 1956 the Southern Arizona Chapter of the American Institute of Architects (SAC/AIA) began a campaign to start a program in Architecture. In 1958, Sidney W. Little, Dean of Architecture and Allied Arts at the University of Oregon, accepted the position of Dean of the College of Fine Arts and Head of the newly created Department of Architecture. Gordon Heck was appointed Associate Professor and became the first faculty member.

Classes began in the Fall of 1958. Thirty students were anticipated but eighty actually enrolled. Several local practitioners were hastily employed to staff the program. Classes opened in a former Safeway store on Park Avenue, one block from the present Architecture building. Growth of the student body and faculty was rapid. In 1960 the faculty numbered seven. The first B.Arch. degree was conferred in June 1961 to a student who had entered the program with advanced standing. The program's emphasis was on design and the UA was known as a "design" school.

In May 1963, in the minimum time possible, provisional accreditation was granted. In September 1963, only five months after accreditation, the Department was authorized to become a separate College of Architecture effective July 1, 1964. Sidney Little was named Dean. The faculty now numbered fourteen. The Architecture building was completed in 1965. It underwent two major additions in 1970 and 1979. In 2001, another major addition was approved. The contract for the new addition has been awarded to the Jones Studio and the programming phase is nearing completion.

A graduate program in Urban Planning was inaugurated in 1963. It focused on public policy rather than physical planning, however, and was transferred into the College of Business and Public Administration in 1970. In 1991, Architecture professor Kenneth Clark was appointed Chair of Planning and the program was placed within the Interdisciplinary Programs unit of the Graduate College. In 1997, the Planning Program was transferred administratively to the College of Architecture.

In 1971, Robert E. McConnell was appointed Dean. The faculty now numbered twenty and enrollment was about 400. A graduate program was established in 1973, and the first M.Arch. degree was conferred in 1976. Ronald Gourley became Dean in 1978. The faculty then numbered twenty-three and enrollment was about 500. During the McConnell and Gourley years, the College developed an emphasis on the environmental concerns of arid regions and on historic preservation. The Architecture Laboratory was incorporated in 1984 as the research unit of the College. Robert Hershberger followed as Dean in January 1988. At that time there were approximately 600 undergraduates (about 300 in the professional phase), 20 graduate students, 20 full-time faculty, and 15 part-time faculty. To reduce overcrowding and increase the size of the graduate program,

the College adopted an enrollment management and resource allocation plan in 1989. The results of that plan are now evident.

During Dean Hershberger's tenure, the Roy P. Drachman Institute for Land and Regional Studies became a center within the College. Its focus on research and community service augmented the College's own activities in these areas. The Architecture Laboratory concentrated its efforts in supporting the emphasis areas of design communication and desert architecture and in implementing international conferences and publications. In addition, the budget for the Architecture Library was transferred to the University Library to eliminate duplication of publications and other materials. The Architecture Librarian is responsible to both units.

In January 1997, Richard A. Eribes was appointed Dean. At that time, there were approximately 400 undergraduates (about 190 in the professional phase), 29 graduate students, 22 full-time faculty, and 13 part-time faculty. In July 1997, the 33-year old Architecture program was joined by the Planning and Landscape Architecture programs to become a multi-department college, with Architecture continuing its five-year B.Arch. curriculum. On Oct. 31, 1997, the College comprised of the School of Architecture, the School of Planning, and the School of Landscape officially changed its name to CAPLA (The College of Architecture, Planning, and Landscape Architecture).

Alvaro Malo was appointed as the Director of the School of Architecture in 1998 and began an extensive re-evaluation of its mission, goals, and curriculum. A number of changes have been instituted, most notably in the Foundation year, in the Technology sequence, in the nature of the Architecture elective offerings, and in the Capstone or final year of the major. The resulting program is presented in this document.

4. Program Mission

The following text is taken from the 2002 University of Arizona Architecture Program Report:

Following the mission of the university, the School of Architecture bases its practice on an elastic triad: *teaching, research,* and *service.* It is specifically grounded in the following propositions:

- That the making of architecture is a sensible technical and aesthetic activity that serves the needs of human shelter.
- That the construction of shelter is an imaginative cultural research that seeks to establish dwelling as a proper human aspiration to a graceful life.
- That this educational and professional pursuit must be inflected by the identity of the Sonoran Desert, the geography of Arizona, and the culture of the Southwest - promoting an intertwined *land ethic - aesthetic research* binary.
- That in a modern age of increased cultural exchange this education must become a portable global sensibility; however, its practice must be observant of local traditions, tempered by material circumstances, and expressive of the ethos of *time* and *place.*

5. Program Strategic Plan

The following text is taken from the 2002 University of Arizona Architecture Program Report:

Responding to the mission of The University of Arizona as a public land-grant institution, as well as its own program mission, the School of Architecture bases its strategic plan on the functional triad of teaching, research, and service.

Responding in addition to a disciplinary mission, the School of Architecture adopted the most appropriate goals and objectives outlined by the two Boyer Commission Reports of the Carnegie Foundation for the Advancement of Teaching: 1) *Building Community. A New Future for Architecture Education and Practice*, and 2) *Reinventing Undergraduate Education. A Blueprint for America's Research Universities.* The latter was the focus of the University of Arizona Annual Retreat for Department Heads held in August 1999 with the theme "A Student-Centered Research University.

The Strategic Plan, outlined below, is an effort to integrate the mission of the School of Architecture and the mission of the University with the appropriate goals of the two Boyer reports.

A. TEACHING AND LEARNING GOALS

1. Make Research-based Learning the Standard

OBJECTIVES:

- Beginning with freshmen, engage students in research in as many courses as possible.

- In the freshman and sophomore years, expose students to diverse fields, revealing the relationships among sciences, humanities, and arts.

2. Establish Precise, Flexible and Integrative Curricula

OBJECTIVES:

- Create a curricular structure that responds to the pedagogical missions of each program.

- Identify clearly the logic of each curricular sequence and its integration with the whole.

- Support the development of critical thinking, appropriate technologies, effective communication methods, and humanistic practices.

- Allow students and faculty to experiment with new and innovative teaching and learning processes.

3. Construct an Inquiry-based Freshman Foundation

OBJECTIVE: Construct the freshman program as an integrated, interdisciplinary, inquiry-based experience.

4. Remove bar-tiers to Interdisciplinary Education

OBJECTIVES:

- Introduce students to interdisciplinary studies in lower-division courses.

- Refine interdisciplinary studies in upper-division courses.

5. *Culminate with a Capstone or Thesis Experience*

OBJECTIVES:

- Use the capstone to prepare seniors for the expectations and standards of graduate work and the professional workplace.

- Make the courses a culmination of the inquiry-based learning of earlier coursework, broadening, deepening, and integrating the total experience of the major.

- Allow the major project to develop from earlier research or an internship experience if possible.

- Promote, whenever possible, collaborative efforts among students in capstone experiences.

B. RESEARCH AND SCHOLARSHIP GOALS

1. Promote Creativity

OBJECTIVES:

- Adopt comprehensive pedagogical methods that include heuristic learning

- Promote faculty and student interest in research and experimentation.

- Organize events that promote and recognize high standards of production by faculty, students and supporting staff.

2. Integrate Laboratories with Pedagogy

OBJECTIVES:

- Integrate existing and future shop facilities as pedagogical laboratories supporting studio and classroom activities.

- Provide opportunities for design/build, experimental construction assembly, and demonstration projects.

3. Engage in Interdisciplinary Work

OBJECTIVE:

- Engage in interdisciplinary collaboration with other programs in the College and the University.

4. Collaborate with Local Government, Professional Associations and Industry

OBJECTIVES:

- Engage in collaborative work with local governments in projects that have research potential.

- Collaborate with professional associations and industry in projects that have technical and practical potential.

5. Promote International Exchange

OBJECTIVES:

- Maintain collaborative exchange with international institutions that have similar cultural and historic backgrounds.

- Seek exchange and collaboration with international institutions that have similar ecological determinants and shared research interests.

C. SERVICE AND OUTREACH GOALS

1. Support Community Service

OBJECTIVES:

- Provide effective support to the Community Planning and Design Workshop (CPDW) through dedicated interdisciplinary studios and Capstone projects.

- Effectively support education and research opportunities that involve faculty, students, and staff in projects serving the needs of local and state communities.

2. Collaborate with Professional and Governmental Organizations

OBJECTIVES:

- Collaborate with governmental and public agencies in public interest projects.

- Maintain effective exchange with the professional communities through faculty research and consultation, student internships, and technological cooperation.

3. Promote Preservation of Natural and Cultural Resources

OBJECTIVES:

- Establish interdisciplinary research and learning opportunities by working on projects focused on preservation of the natural and cultural patrimony.

4. Support International Outreach

OBJECTIVES:

- Promote international exchange with countries that have cultural and geographical similarities.

- Develop well-structured international programs, particularly with institutions that have shared research and design interests.

5. Engage in Continuing Education

OBJECTIVES:

- Deploy the educational resources of the school by means of publications, events, and continuing education programs that serve the needs of the professional communities and the public at large.

D. OPERATIONAL GOALS

1. Abide by Clear Governance

OBJECTIVES:

- Write and implement clear governance bylaws that are in accordance with College and University policies.

- Conduct fair and equitable annual evaluations of faculty and supporting staff in collaboration with the pertinent committees.

2. Change Faculty Reward Systems

OBJECTIVES:

- Recognize the correlation between good undergraduate teaching and good research in promotion and tenure.

- Cultivate a "culture of teaching"...to heighten its prestige and emphasize the linkages between teaching and research.

- Recognize and reward any teacher capable of inspiring performance in large classes.

3. Promote Operational Economy

OBJECTIVES:

- Simplify the operation of standing and ad-hoe committees.

- Invest operational and discretionary funds in expenditures that promote the pedagogical growth of the school.

4. Cultivate a Sense of Community

OBJECTIVES:

- Use collaborative study groups and project teams as a means of building community.

- Support multicultural [arts] programming, major issues forums, and other events to promote the sharing of ideas and experiences.

- Design campus programming such as lectures and the performing arts to touch the interests of as many audiences as possible.

5. Maintain Good Housekeeping

OBJECTIVES:

- Expand facilities to match space standards of peer institutions.

- Renovate existing facilities to improve pedagogical and operational efficiency.

Appendix B: The Visiting Team

Team Chair, Representing the AIA
Judsen R. Marquardt, FAIA
Loschky Marquardt & Nesholm, Architects (LMN)
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(206) 343-9388 fax
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School of Architecture
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Observer
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joycecr@aol.com

Observer
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Tucson, AZ 85705
(520) 623-1313
studio627@lineandspace.com

Appendix C: The Visit Agenda

Saturday September 13, 2003

3:00 P.M.	Team arrivals at Marriott University Park Hotel completed
4:30 – 6:00 P.M.	Team Introduction and Orientation meeting at Chair hotel suite (this, and all events henceforth, also attended by observers)
6:30 – 8:30 P.M.	Team Dinner at Vivace Restaurant

Sunday September 14, 2003

8:00 – 9:30 A.M.	Team Breakfast and VTR format orientation
9:45 – 10:15 A.M.	Team Orientation of SOA Exhibits and Team Room with Laura Hollengreen and Christopher Domin
10:15 – 11:30 A.M.	Team Familiarization with Exhibits and Team Room
11:45 – 1:15 P.M.	Team Lunch and Entrance Meeting with CALA Acting Dean Charles (Corky) Poster and SOA Director Alvaro Malo at Arizona Inn, Catlin Room
1:30 – 4:00 P.M.	Tour of SOA Facilities

Student Affairs and Administration	Susan Moody
First Floor Studios	Dale Clifford
	Alvaro Malo
Second Floor Studio	John Folan
Third Floor Studio	Larry Medlin
	Mary Hardin
Slide Library	Nancy Schindele
Computer Lab	Bill Walrath
Library	Polly Trump
Wood Shop	Ken Jones
Metal and Glass Labs	Christopher Trumble
Heliodon	Rocky Brittain
Energy Labs	Nader Chalfoun

4:15 – 5:00 P.M.	Team Entrance Meeting with Entire Faculty (only)
5:00 – 6:15 P.M.	Team Review of Exhibits and Materials and discussion of VTR assignments
6:30 – 8:30 P.M.	Team Dinner at Barrio Grill
8:30 P.M.	Independent review of APR/VTR correlation

Monday September 15, 2003

6:45 – 7:45 A.M.	Team Breakfast with Director Alvaro Malo at Marriott Vista Room
8:00 – 8:30 A.M.	Team Entrance Meeting with UA Executive Vice President/Provost George Davis at Administration Building
8:45 – 11:45 A.M.	Team Review of Exhibits and finalization of VTR assignments
12:00 – 1:15 P.M.	Team Lunch with selected Faculty Beata Wehr — Foundation Christopher Domin — Communication Laura Hollengreen — History Christopher Trumble — Technology John Folan — Practice Corky Poster — Faculty Chair
1:30 – 2:30 P.M.	Team Tour of Downtown/Rio Nuevo Studio with Ignacio San Martin
2:45 – 4:00 P.M.	Team Visitation of various Design Studios
4:00 – 5:15 P.M.	Team Entrance Meeting with Students (only)
6:00 – 8:00 P.M.	Team Reception with select members of recent and senior alumni, Arizona AIA, Registration Board, and the profession at Bob and Marilyn Joyce residence
8:30 P.M.	Independent Review and generation of VTR draft material

Tuesday September 16, 2003

7:30 – 8:45 A.M.	Team Breakfast with Director Alvaro Malo at Marriott Vista Room
9:00 – 11:15 A.M.	Team Review of Exhibits and Class Visitation opportunities
11:30 – 12:00 noon	Team Review of General Education, Electives, and requested records with CALA Asst. Dean Susan Moody
12:00 – 1:15 P.M.	Team Lunch with 12-15 selected Student Representatives at Student Union Agave Room
1:30 – 2:15 P.M.	Team Meeting with Ron Stoltz, Director of School of Landscape Architecture
2:30 – 6:00 P.M.	Team Review of Materials and continued work on draft VTR
6:00 – 7:00 P.M.	Team Dinner in Team Room
7:00 – 9:00 P.M.	Team work to assemble and edit completed draft of VTR

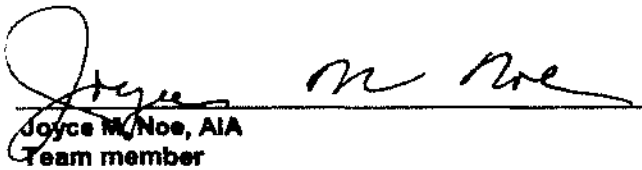
Wednesday September 17, 2003

7:30 – 8:45 A.M.	Team Breakfast and Exit Meeting with SOA Director Alvaro Malo at Marriott Canyon C Room
9:00 – 9:45 A.M.	Team Exit Meeting with CALA Dean Richard Eribes and Acting Dean Charles (Corky) Poster
10:00 – 10:45 A.M.	Team Exit Meeting with UA Executive Vice President/Provost George Davis
11:00 – 12:00 noon	Team Exit Meeting with SOA school-wide Students, Faculty, and Administration
Post 12:30 P.M.	Individual Team departures

IV. Report Signatures

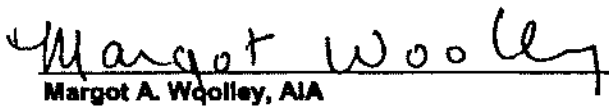
Respectfully Submitted,

Judsen R. Marquardt, FAIA — **Representing the AIA**
Team Chair

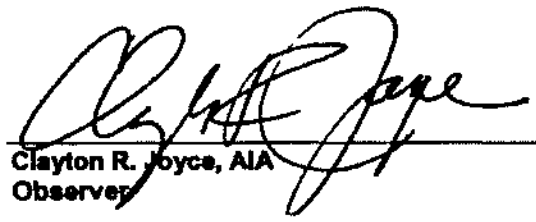


Joyce M. Noe, AIA — **Representing the ACSA**
Team member

Katherine A. Bojsza, Assoc. AIA — **Representing the AIAS**
Team member



Margot A. Woolley, AIA — **Representing the NCARB**
Team member



Clayton R. Joyce, AIA
Observer

Les Wallach, FAIA
Observer

4.6 ANNUAL REPORTS

2004 NAAB STATISTICAL REPORT

SCHOOL: University of Arizona Completed by: Susan K. E. Moody; David Shirk; Polly McCord

ACSA REGION: EC NE SE SW WC W (circle one)

PUBLIC or PRIVATE (circle one)

STUDENT DATA **For Accredited Programs Only**

	4 Year **PreProf	B.Arch Five-year	B.Arch **PostPreProf	B.Arch **PostNonProf	M.Arch Five-year	M.Arch **PostPreProf	M.Arch ***PostNonProf
Full-Time Students		363.0					
Part-Time Students		33					
FTE Students		381.3					
Arch Design Studio Students		337					
Students Working Part-Time		206					
Outside Stud. Serv. by Dept.		47					
African-American Students		5					
Native American Students*		4					
Asian/Pacific Isle Students		18					
Hispanic Origin Students		68					
Women Students		160					
Foreign Students		14					
Total Degrees Awarded		35					
Grads. Fin. Estab. No. Yrs.		23					
Degrees Awarded Women		16					
Degrees Awarded Afri-Amer		1					
Degrees Awarded Amer. Ind.		0					
Degrees Awarded Asi/Pac. Isl.		2					
Degrees Awarded Hispanics		5					
Min Req. SAT/ACT/GRE Score		1180					
Number of Applicants		400					
Number Accepted		173					
Enrollment Target/Goal		175					
Student Studio/Faculty Ratio		12:1					

*Include Eskimos and Aleuts
**Includes four-year program component of 4+1 yrs. B.Arch degree and 4+2 yrs. M. Arch degree.
***Non-Professional: baccalaureate degree that is not part of an accredited professional program.

FACILITY/RESOURCE DATA

Departmental Library LCNA or 720-729 Collection	17,600
Total Architecture Collection in Departmental Library	35,000
University Library LCNA or 720-729 Collection	30,200
Total Architecture Collection in University Library	65,200
Departmental Library Architecture Slides	0
University Library Architecture Slides	0
Departmental Library Architecture Videos	400
Staff in Dept. Library	staffed by students
Number of Computer Stations	44
Amount Spent on Information Technology	85,600
Annual Budget for Library Resources	29,106
Per-Capita Financial Support Received from University	6,991
Private Outside Monies Received by Source	615,677 (gifts and scholarships)
Studio Area (Net Sq. ft.)	12,225
Total Area (Gross Sq. ft.)	43,307

SCHOOL: University of Arizona Completed by: Susan K. E. Moody/David Shirk/Polly McCord

FULL-TIME FACULTY SALARIES	Number	Minimum	Average	Maximum	Univ. Avg.
Professor	5	65,984	75,794	82,000	106,679
Associate Professor	3	55,307	60,729	65,652	76,076
Assistant Professor	9	43,929	47,598	52,780	66,218
Instructor	18	32,000	38,000	64,000	41,787

FACULTY DATA	Department Total
Full-Time Faculty	16
Part-Time Faculty	3
Full-time Equivalent (FTE) Faculty	17.42
Tenured Faculty	10
Tenure-Track Positions	9
FTE Administrative Positions	
Faculty Engaged in Service to Comm.	
Faculty Engaged in Service to Univ.	
FT Faculty who are U.S. Licensed Registered Architects	
PT Faculty who are U.S. Licensed Registered Architects	
Practicing Architects	6.75
FTE Graduate TAs	
FT Faculty Avg. Contact Hrs/Wk	
PT Faculty Avg. Contact Hrs/Wk	

NO. FULL-TIME FACULTY CREDENT	
Ph.D.	5
D. Arch	1
M.A. or S.	
Prof. M. Arch	
B. Arch	
Post Prof. Masters	14.42
Other	

	FT	PT	Tenured	Prof.	Assoc.	Assist.
African-American Faculty						
Native American Faculty*						
Asian/Pacific Island Faculty	1					1
Hispanic Origin Faculty	3		3	3		
Women Faculty	5		1		1	2

*Include Eskimos and Aleuts

Susan Moody

From: Álvaro Malo [malo@u.arizona.edu]
Sent: Monday, May 24, 2004 2:03 PM
To: Sharon Matthews
Cc: eribes@arizona.edu; skemoody@u.arizona.edu
Subject: Annual Report

May 24, 2004

TO: Sharon Matthews, NAAB Executive Director

RE: Annual Report

Although the letter requiring the submission of the Annual Report is dated March 23, 2004, we only received the same ten days ago.

Since this leaves us with insufficient time to respond by the established deadline of June 1, I am requesting that it be extended until June 15, 2004. I would appreciate your confirmation of this extension, as we discussed in a phone conversation today.

Also, I am requesting that all correspondence regarding NAAB accreditation matters be addressed to me as School Director, with copy or c/o to Dean Richard Eribes. Dean Eribes and I have agreed that this way the direct line of responsibility will take care of these matters more promptly and effectively.

Thank you for your attention.

Sincerely,

National Architectural Accrediting Board, Inc.

NAAB RESPONSE TO THE UNIVERSITY OF ARIZONA 2004 ANNUAL REPORT

AR Date: May 31, 2004
VTR Date: September 17, 2003

Section One:
Checklist of required elements

1. Statistical Report	✓ Included	☐ Not Included
2. Response to deficiencies identified in the most recent VTR	✓ Included	☐ Not Included
3. Changes in the accredited program	Included	X Not Included

Section Two (A):
Assessment of response to deficiencies

Condition 3, Public Information

☐ Satisfied, no further reporting required† ✓ Further progress needed

To complete reporting on this condition, provide in the next annual report copies of the public information regarding accredited programs with the correct language from both print and electronic formats.

Condition 7, Physical Resources

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on progress with the new building expansion and future renovation.

Condition 11, Professional Degrees and Curriculum

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on the implementation of the proposed curriculum revision to allow greater elective choices and to meet the NAAB percentages of professional credits.

Criterion 12.28, Technical Documentation

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on how individual students are evaluated in their ability to effectively produce a set of technical documents while working in a group setting. If this process is deemed adequate, provide the next accreditation team visit with evidence of individual ability for this condition.

Criterion 12.29, Comprehensive Design

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on the adoption and effectiveness of the three studios (ARC 301, 302, 401) to meet the condition of comprehensive design through simple to increasingly complex projects.

Section Two (B):
Assessment of response to causes of concern

Condition 5, Human Resources

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on the equitable adjustment of teaching loads for faculty research and promotion and tenure activities.

Condition 8, Information Resources

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on progress toward creation of a new library facility for which adequate hours can be maintained and provide space to hold the collections in a single location.

Criterion 12.26, Building Economics and Cost Control

☐ Satisfied, no further reporting required† ✓ Further progress needed

To complete reporting on this cause of concern, in the next annual report provide syllabi from the courses identified (Construction Documents and Ethics and Practice) highlighted to show where and how the performance level will be raised from "awareness" to "understanding" of building economics and cost control.

Criterion 12.27, Detailed Design Development

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on the three revised courses (Land Ethic, Tectonics and Technical Systems) insofar as they meet the condition of detailed design development. Reporting could be completed by included the syllabi with relevant portions highlighted in the next annual report.

Criterion 12.31, The Legal Context of Architectural Practice

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on how the two identified courses (Construction Documents and Ethics and Practice) will meet the increased performance level of "understanding" regarding legal context.

Criterion 12.37, Ethics and Professional Judgment

☐ Satisfied, no further reporting required† ✓ Further progress needed

Continue reporting on how the identified course (Ethics and Practice) will meet the new performance level of "understanding" regarding ethics and professional judgment in its course content.

Section Three:
Changes to the accredited program

The annual report notes no specific changes.

National Architectural Accrediting Board, Inc.

June 11, 2005

Richard A. Eribes, Ph.D., AIA, Dean
c/o Alvaro Malo, Director
College of Architecture, Planning and Landscape Architecture
The University of Arizona
Tucson, Arizona 85721

NAAB

Dear Dean Eribes,

At its July 2003 meeting, the NAAB Board of Directors revised the submission requirements of Annual Reports. The changes are intended to optimize the usefulness of the Annual Reports to the NAAB and to the development of architecture programs and to aid in the NAAB's evaluation of the report.

Accordingly, the 2005 Annual Reports should contain the following four elements:

1. the two-page statistical report
2. a response, in the order listed, to each condition identified as not met and to each cause of concern listed in the team findings section of the *VTR*. The AR may also address growth experienced in relation to the condition identified as well met, or it may respond to the team comments.
3. a brief summary of changes that have been made or may be made in the accredited program.
4. any other additional information specifically requested by the NAAB.

Please be sure to clearly address each of the above components in the report as required. Note that programs being visited in 2005, or scheduled for a visit in 2006, are required to submit only the two-page statistical report.

Also, if you were required last year to submit the narrative portion of the Annual Report, enclosed you will find the NAAB response to that report. Please note that if any deficiencies have been marked "satisfied, no further reporting required", you will not be required to submit a response to that deficiency to the NAAB until you submit your next Architecture Program Report (APR).

For this year only, the Annual Report will be due in the NAAB office no later than September 1, 2005. In 2006, the due date for Annual Reports will resume as June 1. Programs are encouraged to submit the information electronically by email to dhowell@naab.org.

The NAAB will publish a summary of the 2005 statistical information on its website.

If you need any further information, please contact the NAAB office.

Sincerely,

DeLon Howell
Accreditation Manager

1735 New York Avenue, NW
Washington, DC 20006
www.naab.org
tel 202.783.2007
fax 202.783.2822
email info@naab.org

Section Two (A):
Response to Deficiencies

Condition 3. Public Information

The program has generally moved from printed promotional and catalog material to on-line electronic sources. The last printed copies of such material (Undergraduate Catalog 1998-99 and Graduate Catalog 2001-02) do not contain the NAAB required information. Current electronic documents do contain the NAAB information, but in a version that is several years old and not consistent with the statement as contained in NAAB 1998 Conditions and Procedures. Evidence is not compelling that all faculty and incoming students are furnished with a copy of the 1998 Guide to Student Performance Criteria.

**To complete reporting on this condition, provide in the next annual report copies of the publication information regarding accredited programs with the correct language from both print and electronic formats.*

The most recent version of the promotional literature and the website have been updated with NAAB required information, using the exact language found in appendix A of the 2004 Conditions. Both website and print materials are included.
All faculty members receive a copy of the 2004 Conditions for Accreditation – Section 3.13 Student Performance Criteria annually.
All students, including incoming Freshmen, will be furnished with a copy of the Conditions for Accreditation – Section 3.13 Student Performance Criteria, on the first day of studio in the Fall semester.

Condition 7. Physical Resources

The current facility is taxed beyond its practicable ability to properly house the current program. Design studio space is undersized by roughly a factor of two, lecture and seminar space is minimal and must be shared with other disciplines, and faculty offices originally designed to house one person now typically house two. There is inadequate studio layout and pin-up space and laboratories are remotely located several blocks away from the main facility. Model building activities frequently occur in an outdoor area adjacent to the building and student project reviews are typically held in corridor space.

In short, the success of the UA SOA program is occurring not because of the facilities, but virtually in spite of them.

**Continue reporting on progress with the new building expansion and future renovation.*

The building expansion, which is an officially approved and funded project, is moving ahead according to the following schedule: Construction Documents & Pricing, August 2005; Construction, September

2005 – October 2006; University Fit-up, November-December.2006; Move-in, January 2007— prior to start of spring '07 semester.

The space program of the expansion is allocated as follows: Material Laboratories: 7,000 sq.ft. (additional exterior covered labs: 5,200 sq.ft.); Design Studios: 15,600 sq.ft.; Faculty & Administrative Offices: 4,150 sq.ft.; Class/ Review Rooms: 3,600 sq.ft.; Roof - 13,000 sq.ft. (exterior space, live load compatible for additional Energy and Environmental Testing Labs.) The total conditioned interior space is 30,350 — virtually doubling the capacity of the current physical resources. An abridged copy of the new building plans is attached.

The existing building is also scheduled for renovation, design documents are now in process. Construction is estimated to start in spring 2007 for spring 2008 occupancy.

Condition 11. Professional Degrees and Curriculum

The program requires a minimum of 168 credits for graduation. Of these, 122 credits are in architecture courses, which include the Foundation Studios ARC 101 and 102, in the first year of the program. The remaining 46 credits are in general studies and non-architecture electives.

The required minimum architecture credits in the program are 72.6% of the total credits required. NAAB criteria require that no more than 60% of a student's required post-secondary education be devoted to professional studies. The 72.6 actual percentage means that students have little flexibility to pursue special interests or develop academic concentrations beyond the required architectural courses.

This condition was also "Not Met" at the time of the 1998 Accreditation Visit. At that time 69.5% of the required curriculum was in architectural courses.

**Continue reporting on the implementation of the proposed curriculum revision to allow greater elective choices and to meet the NAAB percentage of professional credits.*

The School of Architecture Curriculum Committee finalized a curricular revision reducing the number of required credit hours in Architecture courses in the B.Arch. program from 122 hours to 102 — in response to the condition not met identified above. The ratio of required Architecture credits to total credits is now 102:168=0.607 — almost exactly the 60% required by NAAB criteria. The implementation of the revised curriculum became effective in the Fall 2004.

PRE-PROFESSIONAL PHASE

Fall 1st Year	# units	Spring 1st year	# units
ENGL 101 Freshman English	3	ENGL 102 Freshman English	3
MATH 110 College Algebra	4	PHYS 102 College Physics	3
* OR MATH 112 College Algebra	(3)	PHYS 181 Physics Lab	1
MATH 111 Trigonometry	2	+ARC 102 Foundation Studio 2	4
+ARC 101 Foundation Studio 1	4	*Elective – Tier 1 TRAD or INDV*	*3*
Elective – Tier 1 INDV or TRAD	*3*		
(Foreign Language Deficiency)	(4)	(Foreign Language Deficiency)	(4)
	15 or 16		14

PROFESSIONAL PHASE

Fall 2nd Year	# units	Spring 2nd Year	# units
_ * ARC 201 Design Studio 1-*Composition*	6	_ *ARC 202 Design Studio 2-*Performance*	6
_ *ARC 221 Building Technology 1	3	_ *ARC 222 Building Technology 2	3
_ ARC 231 History 1	3	_ ARC 232 History 2	3
_ *ARC 241 Design Communications 1	3	*ARC 227 Architectural Programming	2
Elective – Tier 1 Gender/Ethnicity *(INDV or TRAD)*	**3**	***Elective - Tier 1 NATS***	***3***
	18		17

Fall 3rd Year	# units	Spring 3rd Year	# units
_ *ARC 301 Design Studio 3-*Land Ethics*	6	_ *ARC 302 Design Studio 4-*Tectonics*	6
_ *ARC 321 Building Technology 3	3	_ *ARC 322 Building Technology 4	3
_ *ARC 341 Design Communications 2	3	_ ARC 332 History 3	3
*ARC 326 Site Planning	2	***Elective – Tier 2 INDV***	***3***
Elective – Tier 1 INDV or TRAD (whichever remains)	***3***	[illegible]	[illegible]
	17		18

Fall 4th Year	# units	Spring 4th Year	# units
_ *ARC 401 Design Studio 5-*Techniques*	6	_ *ARC 402 Design Studio 6-*Culture*	6
_ *ARC 421 Building Technology 5	3	_ *ARC 422 Building Technology 6	3
_ *ARC 441 Construction Documents	3	_ ARC 459 Ethics and Practice	2
_ ARC 471s Urban Form	3	[illegible]	[illegible]
Elective – Tier 2 NATS	*3*	[illegible]	[illegible]
	18		17

Fall 5th Year	# units	Spring 5th Year	# units
_ ARC 451 Design Studio 7-*Research*	6	_ ARC 452 Design Studio 8-*(Committee)*	6
_ ARC 498 Capstone Research (452 prep)	2	**OR**	
OR		_ ARC 452 Design Studio 8-*(Structured)*	(6)
_ARC 498 Capstone Research (Ind. Study)	(2)		
Elective Tier 2 HUM	*3*	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
	17		15
		TOTAL UNITS TO GRADUATE	**166 (min) or 167**

[illegible] [illegible]
[illegible] [illegible]

A University Minor consists of a minimum of 18 units, 9 of which must be upper division

This action allows the development of a minor focus within each student's program of study, but does not require it. Students may continue to choose electives offered by the School of Architecture. While this action may have the result of slimming down the number of offerings of Architectural electives, it would simultaneously allow the School Director more freedom in granting releases from teaching for development of research agenda, tenure and promotion activities, and sabbatical leaves.

Criterion 12.28 Technical Documentation
Evidence is lacking that each student, working in teams of six, acquires the ability to produce a complete set of technical documents.

**Continue reporting on how individual students are evaluated in their ability to effectively produce a set of technical documents while working in a group setting. If this process is deemed adequate, provide the next accreditation team visit with evidence of individual ability for this condition.*

The faculty member that teaches ARC 441 – Construction Documents is well aware of this observation, and discussed the matter with the Visiting Team during the Site Visit. The number of students working in a group has been cited incorrectly. The students have traditionally worked in groups of four. Due to the numeric breakdown of the class, there are occasionally two groups of five — never groups of six. There are a series of checks and balances in place that ensure that the students gain exposure to production of the full set. The students are required to update a Planning and Utilization Chart at each of the project deadline benchmarks. The benchmarks are consistent with a traditional Design, Bid, Build Owner-Architect Agreement, occurring at 10%, 35%, 60%, 99%, and 100%. The Utilization chart specifies which students have engaged in specific tasks. The sets are graded at 10%, 35%, 60%, 99%, and 100% via formal submission. The title block, which every drawing is required to have, indicates the individuals who have worked on specific sheets. The instructor, to assess whether or not students are gaining the required knowledge base and skill set at each increment, checks information contained on individual sheets against the Utilization Charts. The students receive a grade for the submission as a whole, and they receive an individual grade at each submission. In addition, at each submission the students fill out a form, which requires them to evaluate their performance as well as the performance of each student in the group. These two elements are utilized as indices in the course exercise to determine whether or not students are performing to requisite levels.

Criterion 12.29 Comprehensive Design
Because of the variable scope and scale of individual studio projects, evidence is lacking that every student meets this criterion. The Capstone Studio, cited as playing a major role in meeting this criterion, allows a student to select a highly theoretical or philosophical problem with no assurance that they have, or will, complete a comprehensive architecture design problem within the 5 year program's duration.

**Continue reporting on the adoption and effectiveness of the three studios(ARC301, 302, 401) to meet the condition of comprehensive design through simple to increasingly complex projects.*

The Capstone Studio, ARC 452, is no longer the course required to satisfy this criterion. Beginning in the 2004-2005 academic year, the following studios were revised and adjusted to meet Criterion 12.29 Comprehensive Design: ARC 301 – Land Ethic, ARC 302 – Tectonics, and ARC 401 – Technical Systems — this allows a gradual development of the criterion in the evolution of projects from simple to complex. In ARC 301, it is done through the complete design of a dwelling that satisfies site and environmental, programmatic and material/constructive requirements. In ARC 302 - Tectonics, it is done through the design of a small public building that satisfies programmatic, material, structural and enclosure/environmental requirements. In ARC 401- Technical Systems, it is done through a more complex public building through integration of programmatic requirements with technical, constructive and environmental controls/life safety systems. (Copies of the respective syllabi are appended for verification.)

Causes of Concern

Condition 5 Human Resources

Each full-time faculty member is required to teach two courses per semester, requiring approximately 60% of their time. The balance of faculty time is spent on research and service. The split between these two activities is not equal for all faculty members, which may hinder opportunities for faculty tenure and promotion.

**Continue reporting on the equitable adjustment of teaching loads for faculty research and promotion and tenure activities.*

As reported in the response to Condition 11. Professional Degrees and Curriculum, the conversion of required electives to free electives has had the effect of a lesser density in the curriculum, giving more freedom to students, but also giving greater latitude to the faculty to seek teaching releases to pursue research and promotion and tenure development activities. The School Director, with the support of the Faculty Status Committee, and in agreement with the Visiting Team Report observation that the curriculum was too dense, has revised the teaching load schedules. Faculty seeking tenure and promotion are given one course release every two years, to allow preparation in those activities.

Condition 8 Information Resources

Although the budget of the Architecture Library is increasing annually, there is a serious concern that physical and fiscal constraints have led to inadequate library hours that limit access to this resource. In addition, new multiple locations of the holdings of the Architecture Library have significantly reduced convenience of this access.

**Continue reporting on progress toward creation of a new library facility for which adequate hours can be maintained and provide space to hold the collections in a single location.*

This is still a cause of concern that will remain effective until the question of the library is properly resolved. The Dean has been actively working on a committee selected by the Provost's office to further develop the feasibility of a university project designated as "The North Campus Library", which will integrate the College of Architecture and Landscape Architecture, the College of Fine Arts, and the Center for Creative Photography separate libraries in a unified single facility to be built adjacent to the Architecture building — the mechanisms for development and funding of this project are still in the exploratory phase. Interim operational strategies have included the relocation of the Architecture Library into the Fine Arts Library. This facility of located in the Fine arts Complex, which is adjacent to the Architecture Building. This new arrangement offers more space, combined arts and architecture collections, increased staffing, and increased operating hours over the previous arrangement within the Architecture Building. Within the last month the Library has hired a new librarian to supervise the Architecture collection. Her name is Paula Wolfe.

Campus Facilities and Planning contracted for a Feasibility Study for the North Campus Library during the last academic year. This study demonstrated that the site was appropriate for this use and this facility. Current efforts are focused on the inclusion of this library in the University's Capital Improvement Plan. As of this time, the North Campus Library has not been authorized by the Provost for inclusion on the Capital Improvement Plan.

Criterion 12.26 Building Economics and Cost Control

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**To complete reporting on this concern, in the next annual report provide syllabi for the courses identified (Construction Documents and Ethics and Practice) highlighted to show where and how the performance level will be raised from "awareness" to "understanding" of building economics and cost control.*

The discussion of the upgrading of level of this criterion from "Awareness" to "Understanding" began even before the recent Site Visit. The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. The faculty member teaching these courses has revised the pedagogical objectives, methodology, and requirements accordingly.

More specifically, ARC 441 addresses cost control through in class fee structuring exercises and independent quantity exercises developed to understand unit pricing indices. The quantities exercises are linked to the submission benchmarks to demonstrate escalation potential as level of detail increases. Control measures are discussed and implemented in two forums; one, the resolution of the project and documents, two as a primary focus in the lecture content. Lectures establish an understanding of cost control in the context of varying delivery methods, specifically utilizing AIA documents AIA A201, AIA A191, AIA B901, and AIA B801/CMA. ARC 459 utilizes a semester long project requiring students to commission the fabrication of a finite constructive element to a specific budget. The element is selected from the project completed in ARC 441. The quantity/unit cost increment developed in ARC 441 is used to establish a budget for the element. Interface with the fabricators and limitations set on the fabrication by restricted budgets establish a clear understanding of the relationship between economic constraint and design intent. (Copies of the respective syllabi are appended for verification.)

Criterion 12.27 Detailed Design Development

There are solid courses in materials and components. Proficiency in communicating configurations and assemblies to satisfy building programs is not fully evident for all students in the single course cited as meeting this criterion. Contributing to this condition is the fact that students are permitted choices in the focus of their investigation which might not include building programs.

**Continue reporting on the three revised courses (Land Ethics, Tectonics and Technical Systems) insofar as they meet the condition of detailed design development. Reporting could be completed by included the syllabi with relevant portions highlighted in the next annual report.*

As already stated in the response to a criterion not met, 12.29 Comprehensive Design, this condition is satisfied progressively in three required studios: in ARC 301, it is done through the complete design of a dwelling that satisfies site/environmental, programmatic and material/constructive requirements; in ARC 302 - Tectonics, it is done through the design of a small public building that satisfies programmatic, material, structural and enclosure/environmental requirements; and, in ARC 401- Technical Systems, it is done through a more complex public building through integra-

tion of programmatic requirements with technical, constructive and environmental controls/life safety systems. (Copies of the respective syllabi are appended for verification.)

Criterion 12.31 The Legal Context of Architectural Practice

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the two identified courses (Construction Documents and Ethics and Practice) will meet the increased performance level of "understanding" regarding legal context.*

The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. In both courses the Legal context of Architecture is addressed through the analysis of specific AIA Contracts and Documents. Case studies are utilized to demonstrate salient aspects of all agreements inherently stated and implied. As stated in the response to Criterion 12.26 specific contracts utilized to underscore the legal context in varying scenarios are AIA A201, AIA A191, AIA B901, and AIA B801/CMA. The other AIA documents are identified and their implications in critical practice outlined. Understanding is demonstrated in testing and in completion of Thorough Code Analysis and Instructive notation included with the Construction Documents completed in ARC 441. (As per response to Criterion 12.26, copies of the respective syllabi are appended for verification.)

Criterion 12.37 Ethics and Professional Judgment

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the identified course (Ethics and Practice) will meet the new performance level of "understanding" regarding ethics and professional judgment in its course content.*

The course designated to meet this upgraded criterion is ARC 459 – Ethics and Practice. Understanding is achieved through evaluation of case studies in critical practice and individual work being fabricated. Utilizing four ethical tenets as a governing index *(teleology, deontology, virtue, and contract theory)*, students evaluate the work and methodologies of four different practice typologies - Canonical, Critical Regionalist, Universalist, and Applied Technical Research. Each form of practice and the work generated by the architects representing the typologies provide different complex relationships internally and socially. Each has a divergent economic foundation. By evaluating the practices and work in the context of the four prescribed ethical tenets, the students develop their own ethical indices and professional judgment value scales. The case study evaluation is accomplished in lecture and discussion with testing being utilized as the indicator of understanding. Understanding is comprehensively demonstrated through the critical evaluation of the commissioned fabrication element mentioned in response to criterion 12.31. The students make sequential submissions over the course of the semester, each time evaluating the work, process and social interaction in the context of the ethical tenets. At the completion of the course the students produce a document that indicates the development of critical ethical value and professional judgment.

2006 NAAB STATISTICAL REPORT

SCHOOL:__ University of Arizona completed by: Susan K. E.Moody, Assistant Dean

ACSA REGION: EC NE SE SW WC W (circle one)

PUBLIC or PRIVATE (circle one)

STUDENT DATA **For Accredited Programs Only**

	4 Year **PreProf	B.Arch Five-year	B.Arch **PostPreProf	B.Arch ***PostNonProf	M.Arch Five-year	M.Arch **PostPreProf	M.Arch ***PostNonProf
Full-Time Students		407					
Part-Time Students		23					
FTE Students		417					
Arch Design Studio Students		188					
Students Working Part-Time		50%					
Outside Stud. Serv. by Dept.		55					
African-American Students		8					
Native American Students*		5					
Asian/Pacific Isle Students		19					
Hispanic Origin Students		75					
Women Students		172					
Foreign Students		14					
Total Degrees Awarded		33					
Grads. Fin. Estab. No. Yrs.		23					
Degrees Awarded Women		12					
Degrees Awarded Afri-Amer		0					
Degrees Awarded Amer. Ind.		0					
Degrees Awarded Asi/Pac. Isl.		2					
Degrees Awarded Hispanics		3					
Min Req. SAT/ACT/GRE Score		1110 SAT					
Number of Applicants		~375					
Number Accepted		184					
Enrollment Target/Goal		192					
Student Studio/Faculty Ratio		12 to 1					

*Include Eskimos and Aleuts
**Includes four-year program component of 4+1 yrs. B.Arch degree and 4+2 yrs. M. Arch degree.
***Non-Professional: baccalaureate degree that is not part of an accredited professional program.

FACILITY/RESOURCE DATA

Departmental Library LCNA or 720-729 Collection	0
Total Architecture Collection in Departmental Library	0
University Library LCNA or 720-729 Collection	48,000
Total Architecture Collection in University Library	100,500
Departmental Library Architecture Slides	0
University Library Architecture Slides	0
Departmental Library Architecture Videos	400
Staff in Dept. Library	students
Number of Computer Stations	45
Amount Spent on Information Technology	100,000
Annual Budget for Library Resources	36,500
Per-Capita Financial Support Received from University	95,000
Private Outside Monies Received by Source	350,000
Studio Area (Net Sq. ft.)	12,225
Total Area (Gross Sq. ft.)	43,307

2006 NAAB STATISTICAL REPORT

SCHOOL:__ University of Arizona completed by Susan K. E. Moody, Assistant Dean

FULL-TIME FACULTY SALARIES	Number	Minimum	Average	Maximum	Univ. Avg.
Professor	8	80,450	93,010	117,750	108,404
Associate Professor	1	66,900	66,900	66,900	73,562
Assistant Professor	6	51,000	53,650	63,548	62,730
Instructor	2	44,690	48,070	51,457	48,507

FACULTY DATA	Department Total
Full-Time Faculty	17
Part-Time Faculty	21
Full-time Equivalent (FTE) Faculty	28
Tenured Faculty	8
Tenure-Track Positions	6
FTE Administrative Positions	4
Faculty Engaged in Service to Comm.	25
Faculty Engaged in Service to Univ.	20
FT Faculty who are U.S. Licensed Registered Architects	10
PT Faculty who are U.S. Licensed Registered Architects	17
Practicing Architects	30
FTE Graduate TAs	4
FT Faculty Avg. Contact Hrs/Wk	15
PT Faculty Avg. Contact Hrs/Wk	4.5

NO. FULL-TIME FACULTY CREDENTIALS	
Ph.D.	3
D. Arch	1
M.A. or S.	0
Prof. M. Arch	8
B. Arch	0
Post Prof. Masters	5
Other	0

	FT	PT	Tenured	Prof.	Assoc.	Assist.
African-American Faculty	0	0	0	0	0	0
Native American Faculty*	0	0	0	0	0	0
Asian/Pacific Island Faculty	0	0	0	0	0	0
Hispanic Origin Faculty	3	0	3	3	0	0
Women Faculty	4	6	1	1	0	3

*Include Eskimos and Aleuts

Annual Report for 2006

School of Architecture, University of Arizona **11/14/06**
Response to Program Deficiencies
Deficiencies identified in the Visiting Team Report, September 17, 2003 —
and to NAAB Response to the University of Arizona 2004 Annual Report. *

Section Two (A):
Response to Deficiencies

Condition 3. Public Information
The program has generally moved from printed promotional and catalog material to on-line electronic sources. The last printed copies of such material (Undergraduate Catalog 1998-99 and Graduate Catalog 2001-02) do not contain the NAAB required information. Current electronic documents do contain the NAAB information, but in a version that is several years old and not consistent with the statement as contained in NAAB 1998 Conditions and Procedures. Evidence is not compelling that all faculty and incoming students are furnished with a copy of the 1998 Guide to Student Performance Criteria.

**To complete reporting on this condition, provide in the next annual report copies of the publication information regarding accredited programs with the correct language from both print and electronic formats.*

The most recent version of the promotional literature and the website have been updated with NAAB required information, using the exact language found in appendix A of the current Conditions. Both website and print materials are included.
All faculty members receive a copy of the current Conditions for Accreditation – Section 3.13 Student Performance Criteria annually.
All students, including incoming Freshmen, are furnished during the fall semester with a copy of the Conditions for Accreditation – Section 3.13 Student Performance Criteria.

Condition 7. Physical Resources
The current facility is taxed beyond its practicable ability to properly house the current program. Design studio space is undersized by roughly a factor of two, lecture and seminar space is minimal and must be shared with other disciplines, and faculty offices originally designed to house one person now typically house two. There is inadequate studio layout and pin-up space and laboratories are remotely located several blocks away from the main facility. Model building activities frequently occur in an outdoor area adjacent to the building and student project reviews are typically held in corridor space.

In short, the success of the UA SOA program is occurring not because of the facilities, but virtually in spite of them.

**Continue reporting on progress with the new building expansion and future renovation.*

The College has nearly completed construction on two projects to provide better facilities to its students, faculty and staff: a $9.4 million Expansion encompassing 33,020 square feet – virtually doubling the capacity of the current physical resources – to be completed in December 2006; and a $3.1 million Remodel of the existing Architecture Building to be completed in Summer 2007. The Expansion includes Material Laboratories (7,000 sq.ft. for wood, metal, concrete, glass, and ceramics with additional 5,200 sq. ft. of exterior covered labs), Design Studios (15,600 sq.ft.), Faculty & Administrative Offices (4,150 sq.ft.), Class/ Review Rooms (3,600 sq.ft.), and Roof (13,000 sq.ft. of live load-compatible exterior space for additional Energy and Environmental Testing Labs as well as a proposed "green roof" pending future funding). The Expansion also integrates the graduate School of Landscape Architecture, and with it, laboratories and facilities open to the School of Architecture including a wetlands garden and a three-story "green wall" covering the southern façade. The Remodel includes enlarged and enhanced College administration offices, a renovated Sundt Gallery (including new lighting and mechanical systems, roof, and floor), an enlarged computer laboratory, as well as renovated and upgraded design studios and offices. See Appendix for detailed drawings of the new construction.

Condition 11. Professional Degrees and Curriculum

The program requires a minimum of 168 credits for graduation. Of these, 122 credits are in architecture courses, which include the Foundation Studios ARC 101 and 102, in the first year of the program. The remaining 46 credits are in general studies and non-architecture electives.

The required minimum architecture credits in the program are 72.6% of the total credits required. NAAB criteria require that no more than 60% of a student's required post-secondary education be devoted to professional studies. The 72.6 actual percentage means that students have little flexibility to pursue special interests or develop academic concentrations beyond the required architectural courses.

This condition was also "Not Met" at the time of the 1998 Accreditation Visit. At that time 69.5% of the required curriculum was in architectural courses.

**Continue reporting on the implementation of the proposed curriculum revision to allow greater elective choices and to meet the NAAB percentage of professional credits.*

As reported last year, the School of Architecture Curriculum Committee, with approval of the Faculty as a whole, finalized a curricular revision reducing the number of required credit hours in Architecture courses in the B.Arch. program from 122 hours to 102 — in response to the condition not met identified above. The ratio of required Architecture credits to total credits is now 102:167=0.611 — almost exactly the 60% required by NAAB criteria. The implementation of the revised curriculum became effective in the Fall 2004 and continues today.

PRE-PROFESSIONAL PHASE

Fall 1st Year	# units	Spring 1st year	# units
ENGL 101 Freshman English	3	•ENGL 102 Freshman English	3
MATH 110 College Algebra	4	PHYS 102 College Physics	3
* OR MATH 112 College Algebra	(3)	PHYS 181 Physics Lab	1
MATH 111 Trigonometry	2	•+ARC 102 Foundation Studio 2	4
•+ARC 101 Foundation Studio 1	4	***Elective – Tier 1 TRAD or INDV***	***3***
Elective – Tier 1 INDV or TRAD	*3*		

(Foreign Language Deficiency)	(4)	(Foreign Language Deficiency)	(4)
15 or 16		14	

PROFESSIONAL PHASE

Fall 2nd Year	# units	Spring 2nd Year	# units
▫* ARC 201 Design Studio 1-*Composition*	6	▫ *ARC 202 Design Studio 2-*Performance*	6
▫ *ARC 221 Building Technology 1	3	▫ *ARC 222 Building Technology 2	3
▫ ARC 231 History 1	3	▫ ARC 232 History 2	3
▫ *ARC 241 Design Communications 1	3	*ARC 227 Architectural Programming	2
Elective – Tier 1 Gender/Ethnicity *(INDV or TRAD)*	**3**	***Elective - Tier 1 NATS***	***3***
	18		17

Fall 3rd Year	# units	Spring 3rd Year	# units
▫ *ARC 301 Design Studio 3-*Land Ethics*	6	▫ *ARC 302 Design Studio 4-*Tectonics*	6
▫ *ARC 321 Building Technology 3	3	▫ *ARC 322 Building Technology 4	3
▫ *ARC 341 Design Communications 2	3	▫ ARC 332 History 3	3
*ARC 326 Site Planning	2	***Elective – Tier 2 INDV***	***3***
Elective – Tier 1 INDV or TRAD (whichever remains)	***3***	*OPEN Elective – level A*	*3*
	17		18

Fall 4th Year	# units	Spring 4th Year	# units
▫ *ARC 401 Design Studio 5-*Techniques*	6	▫ *ARC 402 Design Studio 6-*Culture*	6
▫ *ARC 421 Building Technology 5	3	▫ *ARC 422 Building Technology 6	3
▫ *ARC 441 Construction Documents	3	▫ ARC 459 Ethics and Practice	2
▫ ARC 471s Urban Form	3	*OPEN elective (level A)*	*3*
Elective Tier 2 NATS	*3*	*OPEN elective (level A)*	*3*
	18		17

Fall 5th Year	# units	Spring 5th Year	# units
▫ ARC 451 Design Studio 7-*Research*	6	▫ ARC 452 Design Studio 8-*(Committee)*	6
▫ ARC 498 Capstone Research (452 prep)	2	**OR**	
OR		▫ ARC 452 Design Studio 8-*(Structured)*	(6)
▫ARC 498 Capstone Research (Ind. Study)	(2)		
Elective – Tier 2 HUM	*3*	*OPEN elective (level B)*	*3*
OPEN elective (level A)	*3*	*OPEN elective (level B)*	*3*
OPEN elective (level B)	*3*	*OPEN elective (level B)*	*3*
	17		15
		TOTAL UNITS TO GRADUATE	**166 (min) or 167**

OPEN elective (level A) 100 & 200 level courses (lower division)
OPEN elective (level B) 300 & 400 level courses (upper division)

A University Minor consists of a minimum of 18 units, 9 of which must be upper division

This action allows the development of a minor focus within each student's program of study, but does not require it. Students may continue to choose electives offered by the School of Architecture. While this action may have the result of slimming down the number of offerings of Architectural electives, it

would simultaneously allow the School Director more freedom in granting releases from teaching for development of research agenda, tenure and promotion activities, and sabbatical leaves.

Criterion 12.28 Technical Documentation

Evidence is lacking that each student, working in teams of six, acquires the ability to produce a complete set of technical documents.

**Continue reporting on how individual students are evaluated in their ability to effectively produce a set of technical documents while working in a group setting. If this process is deemed adequate, provide the next accreditation team visit with evidence of individual ability for this condition.*

As reported last year, the faculty member who teaches ARC 441 – Construction Documents is well aware of this observation, and discussed the matter with the Visiting Team during the Site Visit. The number of students working in a group has been cited incorrectly. The students have traditionally worked in groups of four. Due to the numeric breakdown of the class, there are occasionally two groups of five — never groups of six. There are a series of checks and balances in place that ensure that the students gain exposure to production of the full set. The students are required to update a Planning and Utilization Chart at each of the project deadline benchmarks. The benchmarks are consistent with a traditional Design, Bid, Build Owner-Architect Agreement, occurring at 10%, 35%, 60%, 99%, and 100%. The Utilization chart specifies which students have engaged in specific tasks. The sets are graded at 10%, 35%, 60%, 99%, and 100% via formal submission. The title block, which every drawing is required to have, indicates the individuals who have worked on specific sheets. The instructor, to assess whether or not students are gaining the required knowledge base and skill set at each increment, checks information contained on individual sheets against the Utilization Charts. The students receive a grade for the submission as a whole, and they receive an individual grade at each submission. In addition, at each submission the students fill out a form, which requires them to evaluate their performance as well as the performance of each student in the group. These two elements are utilized as indices in the course exercise to determine whether or not students are performing to requisite levels.

Criterion 12.29 Comprehensive Design

Because of the variable scope and scale of individual studio projects, evidence is lacking that every student meets this criterion. The Capstone Studio, cited as playing a major role in meeting this criterion, allows a student to select a highly theoretical or philosophical problem with no assurance that they have, or will, complete a comprehensive architecture design problem within the 5 year program's duration.

**Continue reporting on the adoption and effectiveness of the three studios(ARC301, 302, 401) to meet the condition of comprehensive design through simple to increasingly complex projects.*

As reported last year, the Capstone Studio, ARC 452, is no longer the course required to satisfy this criterion. Beginning in the 2004-2005 academic year, the following studios were revised and adjusted to meet Criterion 12.29 Comprehensive Design: ARC 301 – Land Ethic, ARC 302 – Tectonics, and ARC 401 – Technical Systems — this allows a gradual development of the criterion in the evolution of projects from simple to complex. In ARC 301, it is done through the complete design of a dwelling that satisfies site and environmental, programmatic and material/constructive requirements. In ARC 302 - Tectonics, it is done through the design of a small public building that satisfies programmatic, material,

structural and enclosure/environmental requirements. In ARC 401- Technical Systems, it is done through a more complex public building through integration of programmatic requirements with technical, constructive and environmental controls/life safety systems. In ARC 302 and ARC 401 in-depth case studies of internationally commended projects/architects involving investigative project analysis and documentation inform students about the standards and scope expected in their own design work. (Copies of the respective 2005/2006 syllabi and student work are appended for verification.)

Causes of Concern

Condition 5 Human Resources

Each full-time faculty member is required to teach two courses per semester, requiring approximately 60% of their time. The balance of faculty time is spent on research and service. The split between these two activities is not equal for all faculty members, which may hinder opportunities for faculty tenure and promotion.

**Continue reporting on the equitable adjustment of teaching loads for faculty research and promotion and tenure activities.*

As reported last year in the response to Condition 11, Professional Degrees and Curriculum, the conversion of required electives to free electives has had the effect of a lesser density in the curriculum, giving more freedom to students, but also giving greater latitude to the faculty to seek teaching releases to pursue research and promotion and tenure development activities. The School Director, with the support of the Faculty Status Committee, and in agreement with the Visiting Team Report observation that the curriculum was too dense, has revised the teaching load schedules. Faculty seeking tenure and promotion are given one course release every two years, to allow preparation in those activities.

This is reviewed annually for each tenure track faculty member. The School of Architecture Faculty Status Committee conducts an annual Assessment of Progress Toward Promotion and Tenure or an Interim Promotion and Tenure Review. Reports/recommendations from these assessments are given to the School Director as input into his/her Annual Review Letter and subsequent meeting with each faculty member. Through this process, any appropriate equity adjustments of teaching loads or other assigned faculty duties are made.

Condition 8 Information Resources

Although the budget of the Architecture Library is increasing annually, there is a serious concern that physical and fiscal constraints have led to inadequate library hours that limit access to this resource. In addition, new multiple locations of the holdings of the Architecture Library have significantly reduced convenience of this access.

**Continue reporting on progress toward creation of a new library facility for which adequate hours can be maintained and provide space to hold the collections in a single location.*

As noted last year, this is still a cause of concern that will remain effective until the question of the library is properly resolved. The Dean has been actively working on a committee selected by the Provost's office to further develop the approach for a university project designated as "The Fine Arts Library", which will integrate the College of Architecture and Landscape Architecture, the College of Fine Arts, and the Center for Creative Photography separate libraries in a unified single fa-

cility to be built adjacent to the Architecture building. Interim operational strategies have included the relocation of the Architecture Library into the Fine Arts Library. This facility is located in the Fine Arts Complex, which is adjacent to the Architecture Building. This interim arrangement offers more space, combined arts and architecture collections, increased staffing, and increased operating hours over the previous arrangement within the Architecture Building. Last year the Library hired a new librarian to supervise the Architecture collection. Her name is Paula Wolfe.

Campus Facilities and Planning contracted for a Feasibility Study for the Fine Arts Library during the 2003/2004 academic year. This study demonstrated that the site was appropriate for this use and this facility. Recently a Fine Arts Library was approved by the University of Arizona Space and Planning Committee. This Committee is made up of the Provost, Vice President of Finance and the Senior University Finance Team. The project is now approved to seek State of Arizona and private sector funding.

Criterion 12.26 Building Economics and Cost Control

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**To complete reporting on this concern, in the next annual report provide syllabi for the courses identified (Construction Documents and Ethics and Practice) highlighted to show where and how the performance level will be raised from "awareness" to "understanding" of building economics and cost control.*

The discussion of the upgrading of level of this criterion from "Awareness" to "Understanding" began even before the recent Site Visit. The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. The faculty member teaching these courses has revised the pedagogical objectives, methodology, and requirements accordingly.

As reported last year, more specifically, ARC 441 addresses cost control through in class fee structuring exercises and independent quantity exercises developed to understand unit pricing indices. The quantities exercises are linked to the submission benchmarks to demonstrate escalation potential as level of detail increases. Control measures are discussed and implemented in two forums; one, the resolution of the project and documents, two as a primary focus in the lecture content. Lectures establish an understanding of cost control in the context of varying delivery methods, specifically utilizing AIA documents AIA A201, AIA A191, AIA B901, and AIA B801/CMA. ARC 459 utilizes a semester long project requiring students to commission the fabrication of a finite constructive element to a specific budget. The element is selected from the project completed in ARC 441. The quantity/unit cost increment developed in ARC 441 is used to establish a budget for the element. Interface with the fabricators and limitations set on the fabrication by restricted budgets establish a clear understanding of the relationship between economic constraint and design intent. (Copies of the respective 2005/2006 syllabi and student work are appended for verification.)

Criterion 12.27 Detailed Design Development

There are solid courses in materials and components. Proficiency in communicating configurations and assemblies to satisfy building programs is not fully evident for all students in the single course

cited as meeting this criterion. Contributing to this condition is the fact that students are permitted choices in the focus of their investigation which might not include building programs.

**Continue reporting on the three revised courses (Land Ethics, Tectonics and Technical Systems) insofar as they meet the condition of detailed design development. Reporting could be completed by included the syllabi with relevant portions highlighted in the next annual report.*

As already stated in the response to a criterion not met, 12.29 Comprehensive Design, this condition is satisfied progressively in three required studios: in ARC 301, it is done through the complete design of a dwelling that satisfies site/environmental, programmatic and material/constructive requirements; in ARC 302 - Tectonics, it is done through the design of a small public building that satisfies programmatic, material, structural and enclosure/environmental requirements; and, in ARC 401- Technical Systems, it is done through a more complex public building through integration of programmatic requirements with technical, constructive and environmental controls/life safety systems. (Copies of the respective 2005/2006 syllabi and student work are appended for verification.)

Criterion 12.31 The Legal Context of Architectural Practice
There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the two identified courses (Construction Documents and Ethics and Practice) will meet the increased performance level of "understanding" regarding legal context.*

The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. In both courses the Legal context of Architecture is addressed through the analysis of specific AIA Contracts and Documents. Case studies are utilized to demonstrate salient aspects of all agreements inherently stated and implied. As stated in the response to Criterion 12.26 specific contracts utilized to underscore the legal context in varying scenarios are AIA A201, AIA A191, AIA B901, and AIA B801/CMA. The other AIA documents are identified and their implications in critical practice outlined. Understanding is demonstrated in testing and in completion of Thorough Code Analysis and Instructive notation included with the Construction Documents completed in ARC 441. (As per response to Criterion 12.26, copies of the respective 2005/2006 syllabi and student work are appended for verification.)

Criterion 12.37 Ethics and Professional Judgment
There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the identified course (Ethics and Practice) will meet the new performance level of "understanding" regarding ethics and professional judgment in its course content.*

As reported last year, the course designated to meet this upgraded criterion is ARC 459 – Ethics and Practice. Understanding is achieved through evaluation of case studies in critical practice and individu-

al work being fabricated. Utilizing four ethical tenets as a governing index *(teleology, deontology, virtue, and contract theory)*, students evaluate the work and methodologies of four different practice typologies - Canonical, Critical Regionalist, Universalist, and Applied Technical Research. Each form of practice and the work generated by the architects representing the typologies provide different complex relationships internally and socially. Each has a divergent economic foundation. By evaluating the practices and work in the context of the four prescribed ethical tenets, the students develop their own ethical indices and professional judgment value scales. The case study evaluation is accomplished in lecture and discussion with testing being utilized as the indicator of understanding. Understanding is comprehensively demonstrated through the critical evaluation of the commissioned fabrication element mentioned in response to criterion 12.31. The students make sequential submissions over the course of the semester, each time evaluating the work, process and social interaction in the context of the ethical tenets. At the completion of the course the students produce a document that indicates the development of critical ethical value and professional judgment. (Copies of the 2005/2006 syllabus and student work are appended for verification.)

2007 NAAB STATISTICAL REPORT

SCHOOL:__ University of Arizona completed by: Susan K. E.Moody, Assistant Dean

ACSA REGION: EC NE SE SW WC W (circle one)

PUBLIC or PRIVATE (circle one)

STUDENT DATA

For Accredited Programs Only

	4 Year **PreProf	B.Arch Five-year	B.Arch **PostPreProf	B.Arch *PostNonProf	M.Arch Five-year	M.Arch **PostPreProf	M.Arch ***PostNonProf
Full-Time Students		407					
Part-Time Students		23					
FTE Students		417					
Arch Design Studio Students		188					
Students Working Part-Time		50%					
Outside Stud. Serv. by Dept.		55					
African-American Students		8					
Native American Students*		5					
Asian/Pacific Isle Students		19					
Hispanic Origin Students		75					
Women Students		172					
Foreign Students		14					
Total Degrees Awarded		33					
Grads. Fin. Estab. No. Yrs.		23					
Degrees Awarded Women		12					
Degrees Awarded Afri-Amer		0					
Degrees Awarded Amer. Ind.		0					
Degrees Awarded Asi/Pac. Isl.		2					
Degrees Awarded Hispanics		3					
Min Req. SAT/ACT/GRE Score		1110 SAT					
Number of Applicants		~375					
Number Accepted		184					
Enrollment Target/Goal		192					
Student Studio/Faculty Ratio		12 to 1					

*Include Eskimos and Aleuts
**Includes four-year program component of 4+1 yrs. B.Arch degree and 4+2 yrs. M. Arch degree.
***Non-Professional: baccalaureate degree that is not part of an accredited professional program.

FACILITY/RESOURCE DATA

Departmental Library LCNA or 720-729 Collection	0
Total Architecture Collection in Departmental Library	0
University Library LCNA or 720-729 Collection	52,000
Total Architecture Collection in University Library	110,000
Departmental Library Architecture Slides	0
University Library Architecture Slides	0
Departmental Library Architecture Videos	400
Staff in Dept. Library	students
Number of Computer Stations	27
Amount Spent on Information Technology	100,000
Annual Budget for Library Resources	36,500
Per-Capita Financial Support Received from University	95,000
Private Outside Monies Received by Source	350,000
Studio Area (Net Sq. ft.)	27,825
Total Area (Gross Sq. ft.)	76,807

2007 NAAB STATISTICAL REPORT

SCHOOL:__ University of Arizona completed by Susan K. E. Moody, Assistant Dean

FULL-TIME FACULTY SALARIES	Number	Minimum	Average	Maximum	Univ. Avg.
Professor	6	80,648	99,199	117,750	108,404
Associate Professor	3	51,383	59,139	66,896	73,562
Assistant Professor	4	51,000	57,273	63,546	62,730
Instructor	4	44,690	51,273	57,856	48,507

FACULTY DATA	Department Total
Full-Time Faculty	16
Part-Time Faculty	21
Full-time Equivalent (FTE) Faculty	26.72
Tenured Faculty	9
Tenure-Track Positions	5
FTE Administrative Positions	4
Faculty Engaged in Service to Comm.	25
Faculty Engaged in Service to Univ.	20
FT Faculty who are U.S. Licensed Registered Architects	10
PT Faculty who are U.S. Licensed Registered Architects	17
Practicing Architects	30
FTE Graduate TAs	4
FT Faculty Avg. Contact Hrs/Wk	15
PT Faculty Avg. Contact Hrs/Wk	4.5

NO. FULL-TIME FACULTY CREDENTIALS	
Ph.D.	2
D. Arch	1
M.A. or S.	0
Prof. M. Arch	8
B. Arch	0
Post Prof. Masters	5
Other	0

	FT	PT	Tenured	Prof.	Assoc.	Assist.
African-American Faculty	0	0	0	0	0	0
Native American Faculty*	0	0	0	0	0	0
Asian/Pacific Island Faculty	0	0	0	0	0	0
Hispanic Origin Faculty	2	1	3	3	0	0
Women Faculty	4	6	1	1	0	3

*Include Eskimos and Aleuts

Annual Report for 2007

School of Architecture, University of Arizona **10/19/07**
Response to Program Deficiencies
Deficiencies identified in the Visiting Team Report, September 17, 2003 —
and to NAAB Response to the University of Arizona 2005 Annual Report. *

PART TWO

Section Two (A):
Response to Deficiencies

Condition 3. Public Information

The program has generally moved from printed promotional and catalog material to on-line electronic sources. The last printed copies of such material (Undergraduate Catalog 1998-99 and Graduate Catalog 2001-02) do not contain the NAAB required information. Current electronic documents do contain the NAAB information, but in a version that is several years old and not consistent with the statement as contained in NAAB 1998 Conditions and Procedures. Evidence is not compelling that all faculty and incoming students are furnished with a copy of the 1998 Guide to Student Performance Criteria.

**To complete reporting on this condition, provide in the next annual report copies of the publication information regarding accredited programs with the correct language from both print and electronic formats.*

The most recent version of the promotional literature and the website have been updated with NAAB required information, using the exact language found in appendix A of the current Conditions. Both website and print materials are included.
All faculty members receive a copy of the current Conditions for Accreditation – Section 3.13 Student Performance Criteria annually.
All students, including incoming Freshmen, are furnished during the fall semester with a copy of the Conditions for Accreditation – Section 3.13 Student Performance Criteria.

Condition 7. Physical Resources

The current facility is taxed beyond its practicable ability to properly house the current program. Design studio space is undersized by roughly a factor of two, lecture and seminar space is minimal and must be shared with other disciplines, and faculty offices originally designed to house one person now typically house two. There is inadequate studio layout and pin-up space and laboratories are remotely located several blocks away from the main facility. Model building activities frequently occur in an outdoor area adjacent to the building and student project reviews are typically held in corridor space.

In short, the success of the UA SOA program is occurring not because of the facilities, but virtually in spite of them.

**Continue reporting on progress with the new building expansion and future renovation.*

The College has completed construction on two projects to provide better facilities to its students, faculty and staff: a $9.4 million Expansion encompassing 33,020 square feet – virtually doubling the capacity of the current physical resources – completed in August 2007; and a $3.1 million Remodel of the existing Architecture Building completed in August 2007. The Expansion includes Material Laboratories (7,000 sq.ft. for wood, metal, concrete, glass, and ceramics with additional 5,200 sq. ft. of exterior covered labs), Design Studios (15,600 sq.ft.), Faculty & Administrative Offices (4,150 sq.ft.), Class/ Review Rooms (3,600 sq.ft.), and Roof (13,000 sq.ft. of live load-compatible exterior space for additional Energy and Environmental Testing Labs as well as a proposed "green roof" pending future funding). The Expansion also integrates the graduate School of Landscape Architecture, and with it, laboratories and facilities open to the School of Architecture including a wetlands garden and a three-story "green wall" covering the southern façade. The Remodel includes enlarged and enhanced College administration offices, a renovated Sundt Gallery (including new lighting and mechanical systems, roof, and floor), an enlarged computer laboratory, as well as renovated and upgraded design studios and offices. See Appendix II for detailed drawings of the new construction.

Condition 11. Professional Degrees and Curriculum

The program requires a minimum of 168 credits for graduation. Of these, 122 credits are in architecture courses, which include the Foundation Studios ARC 101 and 102, in the first year of the program. The remaining 46 credits are in general studies and non-architecture electives.

The required minimum architecture credits in the program are 72.6% of the total credits required. NAAB criteria require that no more than 60% of a student's required post-secondary education be devoted to professional studies. The 72.6 actual percentage means that students have little flexibility to pursue special interests or develop academic concentrations beyond the required architectural courses.

This condition was also "Not Met" at the time of the 1998 Accreditation Visit. At that time 69.5% of the required curriculum was in architectural courses.

**Continue reporting on the implementation of the proposed curriculum revision to allow greater elective choices and to meet the NAAB percentage of professional credits.*

As reported last year, the School of Architecture Curriculum Committee, with approval of the Faculty as a whole, finalized a curricular revision reducing the number of required credit hours in Architecture courses in the B.Arch. program from 122 hours to 102 — in response to the condition not met identified above. The ratio of required Architecture credits to total credits is now 102:167=0.611 — almost exactly the 60% required by NAAB criteria. The implementation of the revised curriculum became effective in the Fall 2004 and continues today.

PRE-PROFESSIONAL PHASE

Fall 1st Year	# units	Spring 1st year	# units
ENGL 101 Freshman English	3	*ENGL 102 Freshman English	3
MATH 110 College Algebra	4	PHYS 102 College Physics	3
* OR MATH 112 College Algebra	(3)	PHYS 181 Physics Lab	1
MATH 111 Trigonometry	2	*+ARC 102 Foundation Studio 2	4
*+ARC 101 Foundation Studio 1	4	***Elective – Tier 1 TRAD or INDV***	*3*
Elective – Tier 1 INDV or TRAD	*3*		

(Foreign Language Deficiency)	(4)	(Foreign Language Deficiency)	(4)
	15 or 16		14

PROFESSIONAL PHASE

Fall 2nd Year	# units	Spring 2nd Year	# units
▫* ARC 201 Design Studio 1-*Composition*	6	▫ *ARC 202 Design Studio 2-*Performance*	6
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▫ ARC 231 History 1	3	▫ ARC 232 History 2	3
▫ *ARC 241 Design Communications 1	3	*ARC 227 Architectural Programming	2
Elective – Tier 1 Gender/Ethnicity *(INDV or TRAD)*	**3**	***Elective - Tier 1 NATS***	***3***
	18		17

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Elective – Tier 1 INDV or TRAD (whichever remains)	***3***	*OPEN elective level A*	*3*
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Fall 4th Year	# units	Spring 4th Year	# units
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Elective – Tier 2 NATS	*3*	*OPEN elective level A*	*3*
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Fall 5th Year	# units	Spring 5th Year	# units
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OR		▫ ARC 452 Design Studio 8-*(Structured)*	(6)
▫ARC 498 Capstone Research (Ind. Study)	(2)		
Elective – Tier 2 HUM	*3*	*OPEN elective level B*	*3*
OPEN elective level A	*3*	*OPEN elective level B*	*3*
OPEN elective level B	*3*	*OPEN elective level B*	*3*
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		TOTAL UNITS TO GRADUATE	**166 (min) or 167**

OPEN elective (level A) 100 & 200 level courses (lower division)
OPEN elective (level B) 300 & 400 level courses (upper division)

A University Minor consists of a minimum of 18 units, 9 of which must be upper division

This action allows the development of a minor focus within each student's program of study, but does not require it. Students may continue to choose electives offered by the School of Architecture. While this action may have the result of slimming down the number of offerings of Architectural electives, it

would simultaneously allow the School Director more freedom in granting releases from teaching for development of research agenda, tenure and promotion activities, and sabbatical leaves.

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**Continue reporting on the adoption and effectiveness of the three studios(ARC301, 302, 401) to meet the condition of comprehensive design through simple to increasingly complex projects.*

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PART THREE

Causes of Concern

Condition 5 Human Resources

Each full-time faculty member is required to teach two courses per semester, requiring approximately 60% of their time. The balance of faculty time is spent on research and service. The split between these two activities is not equal for all faculty members, which may hinder opportunities for faculty tenure and promotion.

**Continue reporting on the equitable adjustment of teaching loads for faculty research and promotion and tenure activities.*

As reported last year in the response to Condition 11, Professional Degrees and Curriculum, the conversion of required electives to free electives has had the effect of a lesser density in the curriculum, giving more freedom to students, but also giving greater latitude to the faculty to seek teaching releases to pursue research and promotion and tenure development activities. The School Director, with the support of the Faculty Status Committee, and in agreement with the Visiting Team Report observation that the curriculum was too dense, has revised the teaching load schedules. Faculty seeking tenure and promotion are given one course release every two years, to allow preparation in those activities.

This is reviewed annually for each tenure track faculty member. The School of Architecture Faculty Status Committee conducts an annual Assessment of Progress Toward Promotion and Tenure or an Interim Promotion and Tenure Review. Reports/recommendations from these assessments are given to the School Director as input into his/her Annual Review Letter and subsequent meeting with each faculty member. Through this process, any appropriate equity adjustments of teaching loads or other assigned faculty duties are made.

Condition 8 Information Resources

Although the budget of the Architecture Library is increasing annually, there is a serious concern that physical and fiscal constraints have led to inadequate library hours that limit access to this resource. In addition, new multiple locations of the holdings of the Architecture Library have significantly reduced convenience of this access.

**Continue reporting on progress toward creation of a new library facility for which adequate hours can be maintained and provide space to hold the collections in a single location.*

As noted last year, this is still a cause of concern that will remain effective until the question of the library is properly resolved. The Dean has been actively working on a committee selected by the

Provost's office to further develop the approach for a university project designated as "The Fine Arts Library", which will integrate the College of Architecture and Landscape Architecture, the College of Fine Arts, and the Center for Creative Photography separate libraries in a unified single facility to be built adjacent to the Architecture building. Interim operational strategies have included the relocation of the Architecture Library into the Fine Arts Library. This facility is located in the Fine Arts Complex, which is adjacent to the Architecture Building. This interim arrangement offers more space, combined arts and architecture collections, increased staffing, and increased operating hours over the previous arrangement within the Architecture Building. Last year the Library hired a new librarian to supervise the Architecture collection. Her name is Paula Wolfe.

Campus Facilities and Planning contracted for a Feasibility Study for the Fine Arts Library during the 2003/2004 academic year. This study demonstrated that the site was appropriate for this use and this facility. Recently a Fine Arts Library was approved by the University of Arizona Space and Planning Committee. This Committee is made up of the Provost, Vice President of Finance and the Senior University Finance Team. The project is now approved to seek State of Arizona and private sector funding.

Criterion 12.26 Building Economics and Cost Control

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**To complete reporting on this concern, in the next annual report provide syllabi for the courses identified (Construction Documents and Ethics and Practice) highlighted to show where and how the performance level will be raised from "awareness" to "understanding" of building economics and cost control.*

The discussion of the upgrading of level of this criterion from "Awareness" to "Understanding" began even before the recent Site Visit. The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. The faculty member teaching these courses has revised the pedagogical objectives, methodology, and requirements accordingly.

As reported last year, more specifically, ARC 441 addresses cost control through in class fee structuring exercises and independent quantity exercises developed to understand unit pricing indices. The quantities exercises are linked to the submission benchmarks to demonstrate escalation potential as level of detail increases. Control measures are discussed and implemented in two forums; one, the resolution of the project and documents, two as a primary focus in the lecture content. Lectures establish an understanding of cost control in the context of varying delivery methods, specifically utilizing AIA documents AIA A201, AIA A191, AIA B901, and AIA B801/CMA. ARC 459 utilizes a semester long project requiring students to commission the fabrication of a finite constructive element to a specific budget. The element is selected from the project completed in ARC 441. The quantity/unit cost increment developed in ARC 441 is used to establish a budget for the element. Interface with the fabricators and limitations set on the fabrication by restricted budgets establish a clear understanding of the relationship between economic constraint and design intent. (Copies of the respective 2006/2007 syllabi and student work are appended for verification.)

Criterion 12.27 Detailed Design Development

There are solid courses in materials and components. Proficiency in communicating configurations and assemblies to satisfy building programs is not fully evident for all students in the single course cited as meeting this criterion. Contributing to this condition is the fact that students are permitted choices in the focus of their investigation which might not include building programs.

**Continue reporting on the three revised courses (Land Ethics, Tectonics and Technical Systems) insofar as they meet the condition of detailed design development. Reporting could be completed by included the syllabi with relevant portions highlighted in the next annual report.*

As already stated in the response to a criterion not met, 12.29 Comprehensive Design, this condition is satisfied progressively in three required studios: in ARC 301, it is done through the complete design of a dwelling that satisfies site/environmental, programmatic and material/constructive requirements; in ARC 302 - Tectonics, it is done through the design of a small public building that satisfies programmatic, material, structural and enclosure/environmental requirements; and, in ARC 401- Technical Systems, it is done through a more complex public building through integration of programmatic requirements with technical, constructive and environmental controls/life safety systems. (Copies of the respective 2006/2007 syllabi and student work are appended for verification.)

Criterion 12.31 The Legal Context of Architectural Practice

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the two identified courses (Construction Documents and Ethics and Practice) will meet the increased performance level of "understanding" regarding legal context.*

The courses designated to meet this upgraded criterion are ARC 441 – Construction Documents and ARC 459 – Ethics and Practice. In both courses the Legal context of Architecture is addressed through the analysis of specific AIA Contracts and Documents. Case studies are utilized to demonstrate salient aspects of all agreements inherently stated and implied. As stated in the response to Criterion 12.26 specific contracts utilized to underscore the legal context in varying scenarios are AIA A201, AIA A191, AIA B901, and AIA B801/CMA. The other AIA documents are identified and their implications in critical practice outlined. Understanding is demonstrated in testing and in completion of Thorough Code Analysis and Instructive notation included with the Construction Documents completed in ARC 441. (As per response to Criterion 12.26, copies of the respective 2006/2007 syllabi and student work are appended for verification.)

Criterion 12.37 Ethics and Professional Judgment

There is coverage of this criterion in several course offerings and each correctly designates the performance level of "Awareness." Evidence is lacking regarding how the new performance level of "Understanding" will be incorporated, and future Annual Reports should reference such progress.

**Continue reporting on how the identified course (Ethics and Practice) will meet the new performance level of "understanding" regarding ethics and professional judgment in its course content.*

As reported last year, the course designated to meet this upgraded criterion is ARC 459 – Ethics and Practice. Understanding is achieved through evaluation of case studies in critical practice and individual work being fabricated. Utilizing four ethical tenets as a governing index *(teleology, deontology, virtue, and contract theory),* students evaluate the work and methodologies of four different practice typologies - Canonical, Critical Regionalist, Universalist, and Applied Technical Research. Each form of practice and the work generated by the architects representing the typologies provide different complex relationships internally and socially. Each has a divergent economic foundation. By evaluating the practices and work in the context of the four prescribed ethical tenets, the students develop their own ethical indices and professional judgment value scales. The case study evaluation is accomplished in lecture and discussion with testing being utilized as the indicator of understanding. Understanding is comprehensively demonstrated through the critical evaluation of the commissioned fabrication element mentioned in response to criterion 12.31. The students make sequential submissions over the course of the semester, each time evaluating the work, process and social interaction in the context of the ethical tenets. At the completion of the course the students produce a document that indicates the development of critical ethical value and professional judgment. (Copies of the 2006/2007 syllabus and student work are appended for verification.)

PART FOUR

Changes in the Accredited Program

There were no changes in the accredited program that may change its adherence to the *Conditions*. An Ad Hoc New Degree Task Force has been studying a 6 year M.Arch. (accredited professional degree) and/or a 3 1/2 year M.Arch. (accredited professional degree with a B.A. prerequisite) as additional degree/s or eventually a replacement for our currently accredited 5 year B.Arch. (professional degree). We would welcome any input from NAAB for these considerations, and as appropriate would like to discuss our proposals/process with the NAAB Committee during our scheduled spring 2009 Team Visit.

Annual Report Submission

Questionnaire Detail

Your last Review Time was 12/5/2008 9:54:34 PM.
You have reviewed 6 times
You are modifiying the Annual Report Submission for University of Arizona. If this is not correct please contact NAAB immediately.
Annual Report Submission for the year 2008.
This Annual Report Submission has been submitted already.
Submission Time: 12/5/2008 9:54:34 PM

Introduction

Starting in the fall of 2008, the National Architectural Accrediting Board (NAAB) is launching a new online Annual Report Submission (ARS) system with a deadline of November 30, 2008.

Continuing accreditation/candidacy is subject to the submission of *Annual Reports*. They are then reviewed by the NAAB staff and a response is prepared and sent to the program. Under certain conditions, three-year terms of accreditation may be extended to six-year terms on the basis of the material provided in *Annual Reports*. Conversely, if an acceptable *Annual Report* is not submitted to the NAAB by the following January 15 the NAAB may consider advancing the schedule for the program's next accreditation sequence.

Part I (Annual Statistical Report) captures statistical information on the institution in which an architecture program is located and the degree program. For the purposes of the report, the definitions are taken from the glossary of terms used by the Integrated Postsecondary Education Data System (IPEDS)[1]. Much of the information requested in Part I must be consistent to the *Institutional Characteristics, Completion and 12-Month Enrollment Report* submitted to IPEDS in the fall by the institution. Data submitted in this section is for the previous fiscal year. An appropriate representative of the institution's administration should verify data prepared by architecture programs.

Part II (Narrative Report) is the report in which a program responds to the most recent Visiting Team Report (VTR). The narrative must address *Section 1.4 Conditions Not Met* and *Section 1.5 Causes of Concern* of the VTR. Part II also includes a description of changes to the program that may be of interest to subsequent visiting teams or to the NAAB. In addition, this part is linked to other questions in Part I for which a narrative may be required. If a program had zero "not mets" in the most recent VTR or was "cleared of future reporting" in subsequent annual reports, no report is required in Part II.

Submission

Annual Reports are submitted through the NAAB's Annual Report Submission system during the month of November each year. Programs visited during the previous spring or scheduled to be visited the following spring are required to submit Part I (Annual Statistical Report) only (e.g., for fall 2008, programs visited in spring 2008 or scheduled for spring 2009 only submit their statistical reports – Part I).

NAAB Response

Annual Reports are reviewed by the NAAB staff and an NAAB response is sent to the program, generally in the early spring. The NAAB administrative response to the *Annual Report* will identify whether additional or continued reporting is required for any of the conditions or causes of concern identified in the most recent VTR. Programs are encouraged to include these administrative responses as supplemental material in subsequent APRs.

The NAAB uses *Annual Reports* to maintain current information about the programs it accredits and track selected information that is relevant to compliance with the NAAB Conditions. Prior to accreditation visits or focused evaluations, visiting teams receive a summary report of program annual statistics that cover the years since the school's last accreditation visit and an aggregate summary of data received from all accredited programs for the same period.

The statistics collected in this survey will be made available to all participating accredited and candidate schools. In order to maintain confidentiality, information may only be reported in the aggregate. Information that is available to the public will be posted on the NAAB website.

The NAAB uses the information to support accreditation activities and to provide relevant reports to other collateral organizations like The American Institute of Architects or the National Council of Architectural Registration Boards.

[1] IPEDS is the "core postsecondary data collection program for the National Center for Education Statistics. Data are collected from all primary providers of postsecondary education in the [U.S.] in areas including enrollments, program completions, graduation rates, faculty, staff, finances, institutional prices, and student financial aid." For more information see

PART I - ANNUAL STATISTICAL REPORT
SECTION A. INSTITUTIONAL CHARACTERISTICS
This section captures aggregated information about the home institution for each architecture program. Wherever possible, this information should be the same as that reported by the institution to IPEDS in its most recent Institutional Characteristics, Completion and 12-month Enrollment report.

(for inclusion on the NAAB website)

Institution Name:	University of Arizona
Academic Unit Name:	School of Architecture
Address 1:	1040 N. Olive Road
Address 2:	P.O. Box 210075
City:	Tucson
State:	AZ
Zip:	85721-0075
Architecture Program Tel. No:	520.621.6752
Architecture Program School Fax No:	520.621.8700
Architecture Program School URL:	http://cala.arizona.edu

In order to modify your organization information please visit the

.

Public
Doctoral/Research Universities - Extensive
North Central Association of Colleges and Schools (NCACS)

5. Who has direct administrative responsibility for the architecture program?

Name	Laura H. Hollengreen
Title	Interim Director
Office Tel. No	(520) 621-6752
Fax No	(520) 621-8700
Email Address	laurah@u.arizona.edu

6. To whom should inquiries regarding this questionnaire to be addressed?

Name	Laura H. Hollengreen
Title	Interim Director
Office Tel. No	(520) 621-6752
Fax No	(520) 621-8700

Email Address	laurah@u.arizona.edu

7. Who is the administrator responsible for verifying data (and completing IPEDS reports) at your institution?

Name	Rick Sears or Aeyn edwards
Title	ipeds keyholder
Office Tel. No	621-5101
Fax No	626-1234
Email Address	rsears@email.arizona.edu

(Aggregated for the Institution; this information should be the same as that reported to IPEDS for the last fiscal year)

Total undergraduate enrollment:	29070
Total graduate enrollment:	6870
25th percentile ACT score for undergraduates enrolling on the last fiscal year	30
75th percentile ACT score for undergraduates enrolling on the last fiscal year	17
25th percentile SAT score for undergraduates enrolling on the last fiscal year	1351
75th percentile SAT score for undergraduates enrolling on the last fiscal year	680
Average GRE score for graduates enrolling in the last fiscal year (not including specialized programs like law, medicine, business or other programs for which a specialized entrance examination is required):	0

	Male	Female
Total	13744	15326
American Indian/Alaska Native	256	444
Asian or Pacific Islander	880	906
Black, Non-Hispanic	451	514
Hispanic	2024	2681
White, Non-Hispanic	8989	9855
Other	505	300
Declined to or Did Not Supply	639	626

	Male	Female
Total	3230	3640
American Indian/Alaska Native	60	141
Asian or Pacific Islander	119	147
Black, Non-Hispanic	61	95
Hispanic	245	366
White, Non-Hispanic	1609	1934
Other	881	562
Declined to or Did Not Supply	255	395

SECTION B. NAAB-ACCREDITED ARCHITECTURE PROGRAMS

This section captures information about the specific NAAB-accredited degree programs offered by the institution, unless otherwise noted in the instructions.

B. Arch.	X
M. Arch.	

D. Arch.

Discipline	Degree	Guide Display
Architecture	M. Arch	M Arch--2 years

Yes
If yes, a report is required in PART II – Narrative Report that outlines the plans and planning for the new program
No
If yes, a report is required in PART II – Narrative Report that outlines the plans and planning for the new program.
2 Semesters or Trimester
The program(s) in this section are dependent on your selection in Section B, Question 1.
B Arch : 148
The program(s) in this section are dependent on your selection in Section B, Question 1.
a. Indicate the total number of credit hours taken at your institution to earn each NAAB accredited degree offered by your institution.
B. Arch.: 166
b. By degree, how many of those credit hours are assigned to general education?
B. Arch.: 66
c. By degree, what is the average number of credits each full time student completes per academic term?
B. Arch.: 17
No
SECTION C. TUITION, FEES AND FINANCIAL SUPPORT FOR STUDENTS IN NAAB-ACCREDITED PROGRAMS

B Arch.

If this section is not applicable, please enter all zero's (0).

	Annual Tuition	Annual Fees	Per Hour/Term/Year
Full-Time			
In-State	5424	222	Per Academic Year
Out-of-State	16658	224	Per Academic Year
Part-Time			
In-State	554	222	Per Credit Hour
Out-of-State	1388	224	Per Credit Hour

M Arch.

If this section is not applicable, please enter all zero's (0).

	Annual Tuition	Annual Fees	Per Hour/Term/Year
Full-Time			
In-State	0	0	Per Academic Year
Out-of-State	0	0	Per Academic Year
Part-Time			
In-State	0	0	Per Credit Hour
Out-of-State	0	0	Per Credit Hour

a. Does the institution offer discounted or differential tuition for a NAAB-accredited degree program? if yes, please explain
Yes
Explain:
$57.50/semester in tech fee = differenial tuition
b. Is a summer session required for any portion of your accredited degree program(s)?
No
If yes, what is the additional tuition and fees for the summer program?
(If no fill this section with 0s)

	Summer Tuition	Summer Fees	Per Hour/Term/Year
Full-Time			
In-State	0	0	Per Term
Out-of-State	0	0	Per Term
Part-Time			
In-State	0	0	Per Credit Hour
Out-of-State	0	0	Per Credit Hour

Does the institution offer discounted or differential tuition for summer courses for a NAAB-accredited degree program?
If yes, please explain
No
What is the average per student expenditure for students enrolled in NAAB accredited degree programs? This is the total amount of goods and services, per student, used to produce the educational services provided by the NAAB-accredited program.

The program(s) in this section are dependent on your selection in Section B, Question 1.

B. Arch. Student Exp 5375
What was the total amount of financial aid (Grants, loans, assistantships, scholarships, fellowships, tuition waivers, tuition discounts, veteran's benefits, employer aid [tuition reimbursement] and other monies [other than from relatives/friends] provided to students to meet expenses. This includes Title IV subsidized and unsubsidized loans provided directly to student) provided by the institution to students enrolled in each program(s) leading to a NAAB accredited degree during the last fiscal year?

The program(s) in this section are dependent on your selection in Section B, Question 1.

Financial Aid provided to undergraduate students in NAAB-accredited programs:

Total Undergraduate Financial Aid for last fiscal year 37647138
Average Undergraduate Financial Aid per student 13163
SECTION D. STUDENT CHARACTERITICS FOR NAAB-ACCREDITED DEGREE PROGRAMS
(If your institution offers more than one program, please provide the information for each program separately)

	Male	Female
Total	129	99
American Indian/Alaska Native	3	8
Asian or Pacific Islander	4	7
Black, Non-Hispanic	4	3
Hispanic	22	14
White, Non-Hispanic	77	64
Other	12	2
Declined to or Did Not Supply	7	1

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include '$' or ','" A person can only be counted in one group.

	Male	Female
Total	126	92
American Indian/Alaska Native	3	7

Asian or Pacific Islander	12	7
Black, Non-Hispanic	4	3
Hispanic	20	13
White, Non-Hispanic	70	59
Other	11	2
Declined to or Did Not Supply	6	1

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include 'S' or ',' A person can only be counted in one group.

	Full-Time		Part-Time	
	Male	**Female**	**Male**	**Female**
Total	113	83	13	9
American Indian/Alaska Native	3	7	0	0
Asian or Pacific Islander	12	7	0	0
Black, Non-Hispanic	3	3	1	0
Hispanic	15	9	5	4
White, Non-Hispanic	64	54	6	5
Other	10	2	1	0
Declined to or Did Not Supply	6	1	0	0

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include 'S' or ',' A person can only be counted in one group.

	Full-Time		Part-Time	
	Male	**Female**	**Male**	**Female**
Total	223	160	19	13
American Indian/Alaska Native	3	7	0	1
Asian or Pacific Islander	18	12	0	0
Black, Non-Hispanic	4	4	1	0
Hispanic	38	21	5	6
White, Non-Hispanic	135	102	12	6
Other	15	8	1	0
Declined to or Did Not Supply	10	6	0	0

a. Total number of credits in professional architectural studies taken by full time students for the last fiscal year:
978
b. Total number of credits in professional architectural studies taken by part-time students in the last fiscal year:
60
SECTION E. DEGREES AWARDED
(The information requested in this section should be provided by the unit within the institution responsible for submitting the annual Completion Report to the National Center for Education Statistics and IPEDS.)

	B. Arch.	M. Arch.	D. Arch.

	Male	Female	Male	Female	Male	Female
Total	24	12	0	0	0	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	2	0	0	0	0
Hispanic	8	0	0	0	0	0
White, Non-Hispanic	16	9	0	0	0	0
Other	0	1	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Data are collected on the number of students entering the institution as full-time, first-time, degree- or certificate-seeking undergraduate students in a particular year (cohort), by race/ethnicity and gender; the number completing their program within 150 percent of normal time to completion; the number that transfer to other institutions if transfer is part of the institution's mission; and the number of students receiving athletically-related student aid in the cohort and number of these completing within 150 percent of normal time to completion. Schools with athletic aid must also provide the total number of students receiving aid in the prior year, by race/ethnicity and gender within sport. The GRS automatically generates worksheets that calculate rates, including average rates over 4 years. This information should be provided by the unit within the institution responsible for reporting data to the National Center for Education Statistics.

Graduation rate for the institution 56

Graduation rate for the B. Arch 80

SECTION F. RESOURCES FOR STUDENTS AND LEARNING IN NAAB-ACCREDITED PROGRAMS

(all forms of media)

Catalogued Titles on Main campus: 154408

Catalogued Titles on Other locations: 0

(all forms of media)

Library of Congress NA or Dewey 720-729 Catalogued Titles on Main campus: 50000

Library of Congress NA or Dewey 720-729 Catalogued Titles on Other locations: 0

Permanent Workstations on Main Campus: 12

Permanent Workstations at Other locations: 0

Resource Type	Available?
Shop	Yes
Computer Facilities (Lab)	Yes
Computer Output Facilities (Plotters, Specialized plotting)	Yes
Digital Fabrication Facilities	Yes
Wireless Network	Yes
Image Collection (Slide Library)	Yes
Photo Studio/Darkroom	No
Lecture Series	Yes
Gallery/Exhibits	Yes
Other	Yes

If Other Resources, Please describe:

Materials research labs which are more extensive and better equipped than typical "shops"

SECTION G. HUMAN RESOURCE SUMMARY (Architecture Program)

Faculty are defined as follows: Persons identified by the institution as such and typically those whose initial assignments are made for the purpose of conducting instruction, research or public service as a principal activity (or activities). They may hold academic rank titles of professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of those academic ranks. Faculty may also include the chancellor/president, provost, vice provosts, deans, directors or the equivalent, as well as associate deans, assistant deans and executive officers of academic departments (chairpersons, heads or the

equivalent) if their principal activity is instruction combined with research and/or public service. The designation as "faculty" is separate from the activities to which they may be currently assigned. For example, a newly appointed president of an institution may also be appointed as a faculty member. Graduate, instruction, and research assistants are not included in this category.

Those members of the instructional/research staff who are employed full time and whose major assignment is instruction, including those with release time for research. Includes full-time faculty for whom it is not possible to differentiate between reaching, research, and public service because each of these functions is an integral component of his/her regular assignment.

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include '$' or ',". A person can only be counted in one group.

Professor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	7	1	0	0	0	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	2	0	0	0	0	0
White, Non-Hispanic	5	1	0	0	0	0
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Associate Professor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	2	1	0	0	0	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0
White, Non-Hispanic	2	1	0	0	0	0
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Assistant Professor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	0	0	3	1	1	1
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	1	0	0	0

White, Non-Hispanic	0	0	2	1	1	1
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Instructor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	0	0	0	0	1	2
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0
White, Non-Hispanic	0	0	0	0	1	2
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Total credit hours taught by full time faculty: 4813

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include '$' or ',' A person can only be counted in one group.

Professor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	0	0	0	0	0	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0
White, Non-Hispanic	0	0	0	0	0	0
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Associate Professor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	0	0	0	0	0	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0
White, Non-Hispanic	0	0	0	0	0	0
Other	0	0	0	0	0	0

Declined to or Did Not Supply	0	0	0	0	0	0

Assistant Professor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	0	0	0	0	1	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0
White, Non-Hispanic	0	0	0	0	1	0
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Instructor

	Tenured		Tenure-Track		Non-Tenure-Track	
	Male	Female	Male	Female	Male	Female
Total	0	0	0	0	0	0
American Indian/Alaska Native	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0
White, Non-Hispanic	0	0	0	0	0	0
Other	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0

Total credit hours taught by part-time faculty: 179

Non-tenure track faculty service in a temporary or auxiliary capacity to teach specific courses on a course-by-course basis. Includes both faculty who are hired to teach an academic degree-credit course and those hired to teach a remedial, developmental or ESL course; whether the later three categories earn college credit is immaterial. Excludes regular part-time faculty, graduate assistants, full-time professional staff who may teach individual courses (such as the dean or academic advisor) and appointees who teach non-credit courses exclusively).

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include 'S' or ',". A person can only be counted in one group.

	Professor		Assoc. Prof.		Assist. Prof.		Instructor	
	Male	Female	Male	Female	Male	Female	Male	Female
Total	0	0	0	0	0	0	6	8
American Indian/Alaska Native	0	0	0	0	0	0	0	0
Asian or Pacific Islander	0	0	0	0	0	0	0	0
Black, Non-Hispanic	0	0	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0	0	0

White, Non-Hispanic	0	0	0	0	0	0	6	8
Other	0	0	0	0	0	0	0	0
Declined to or Did Not Supply	0	0	0	0	0	0	0	0

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include '$' or '.'" A person can only be counted in one group.

	Full Time		Part Time		Adjunct	
	Male	Female	Male	Female	Male	Female
D. Arch	1	0	0	0	0	0
M. Arch.	5	4	0	0	4	0
B. Arch	0	0	1	0	1	6
Ph.D. in architecture	0	0	0	0	0	0
Ph.D. in other discipline	1	1	0	0	0	0
Post-professional master's in architecture	7	1	1	0	1	0
Other degrees	0	0	0	0	0	1
Registered in U.S. Jurisdiction	4	1	1	0	0	1

Please fill out these tables completely, entering 0 for blanks. Please use whole, positive integers and do not include '$' or '.'" A person can only be counted in one group.

	Number	Minimum	Avg.	Max.	Univ. Avg.
Professor	8	74903	87775	117420	113000
Assoc. Prof.	3	57592	57759	57925	79000
Assist. Prof.	6	52530	52820	53931	70000
Instructor	3	46031	49516	53001	0

PART II: NARRATIVE REPORT
In addition to Annual Statistical Report (PART I), NAAB-accredited architecture degree programs are required to submit a Narrative Report (PART II).
This report has two sections:

- Describe the architecture program's responses to the most recent Visiting Team Report (VTR). The narrative must address Section I.4 Conditions Not Met and Section I.5 Causes of Concern of the VTR.
- Report changes to the architecture program since the last Annual Report was submitted.

Please note that a YES answer to Section B, Questions 3 or 4 requires the inclusion of a narrative report.
Annual Report required:

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Size: 62.43 KB

Please also include information about changes to your NAAB Accredited programs.

REVIEW AND SUBMIT REPORT

Selecting Review Report (above) will prepare a report regarding the completion and accuracy of your report. If the data submitted in PART I is complete then a preview of the report with any incorrect data clearly labeled will be provided. If any data is missing from the report a list of missing data will be provided.

Printable View

4.7 SCHOOL CATALOG

The complete Course catalog can be found in Section 3.12

4.7 REQUIRED TEXT FOR CATALOGS AND PROMOTIONAL MATERIALS

Prospective Student Information Booklet, B.Arch
Prospective Student Information Booklet, M.Arch
Prospective Student Brochure, B.Arch
Prospective Student Brochure, M.Arch
Prospective Transfer Student Information Sheet, B.Arch
Prospective Student Presentation (PowerPoint), B.Arch
New Student Orientation Booklet, B.Arch
New Student Orientation Presentation (PowerPoint), B.Arch
Website: Selected Pages

School of Architecture

Bachelor of Architecture

Fall 2009-Spring 2010

THE UNIVERSITY OF ARIZONA.

Arizona's First University.

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TO THE INQUIRING STUDENT

Thank you for taking the time to look over this information about The University of Arizona (UA) and The College of Architecture and Landscape Architecture (CALA). We wish you every success in finding the college or university that will best meet your needs. As you make this important decision, consider the following:

Is The UA School of Architecture right for you?

Located in the culturally diverse and environmentally unique desert Southwest, the School offers a challenging undergraduate program that combines traditional and innovative approaches to studying and designing the built environment. Course work is structured to present students with an opportunity to explore issues primary to architecture within a rapidly changing world.

We offer a **5 year program** leading to the professional degree, Bachelor of Architecture (B.Arch). The program is fully accredited by the National Architectural Accrediting Board (NAAB). It is of a 1-3-1 structure: the Preprofessional year (Foundations), a 3 year core (Professional), and a final year (Capstone), which includes independent research and a thesis project.

Quite frankly, we are not modest about our program. Our school is highly regarded by architecture and design professionals and is ranked 12th in the nation.* The faculty are distinguished as both teachers and practitioners and have been selected to present a variety of points of view. Students are purposely exposed to different ways of thinking about, and doing, architecture.

Architecture at The University of Arizona is a well balanced but highly demanding program. **Self-discipline, motivation and good academic preparation are required for success.** Students are expected to cultivate well-developed abilities in problem solving, critical thinking, analysis, evaluation, synthesis and communication. Our goal is the preparation of future leaders in our profession.

This booklet describes the curriculum for the five-year program leading to the Bachelor of Architecture degree and general information on admissions policies and procedures. The Admission Criteria for the Pre-Professional Phase and Conditions for Admission to the Professional Phase statements contain information of particular relevance to your status. Read them carefully and if you have questions, please contact us again for a more personalized response.

Experience indicates that students are best able to make informed decisions about the Architecture Program at The University of Arizona by making a site visit. Applicants are strongly encouraged to visit the School while classes are in session, meet with a school representative and talk with current students. Please call (520) 621-6751 to make an appointment.

We appreciate your interest in the School and extend our best wishes in finding the program that is right for you. We hope it is The University Arizona.

Sincerely,
Susan K. E. Moody
Assistant Dean

* "America's Best Architecture & Design Schools 2009" Design Intelligence

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ABOUT ARCHITECTURE AT ARIZONA

As mentioned in our introduction, the undergraduate program is a 5-year, professional degree program resulting in a Bachelor of Architecture (B.Arch). The program is presented in a 1 - 3 - 1 structure and has two sequential points of entry:

1. Pre-Professional Phase
2. Professional Phase

Pre-Professional Phase

Students interested in Architecture at The University of Arizona should apply to the "Pre-Architecture" major when they apply to the University. Although we do not require a portfolio for entry into the Pre-Professional Phase, we do have stringent academic requirements. The minimums are as follows:

- 3.0 GPA (on a 4.0 scale)
- 1110 SAT Math & Critical Reading composite score, and/or
- 24 ACT composite score

The first year, Pre-Professional Phase, includes the Foundation Studios – ARC 101 (Fall semester), ARC 102 (Spring semester).

Professional Phase

Students who wish to continue in the program and pursue the B.Arch need to apply to the professional phase of the program. Admission to the Professional Phase is selective and competitive. The application process for the professional phase occurs at the end of the Spring semester of a student's first year (Pre-Professional Phase). Each student who is interested in pursuing the professional program will be required to complete an application and mount an exhibit of his/her work.

The first year foundation is meant to provide an introduction of elementary principles and basic technical skills that give students opportunity to test the field and prepare a portfolio for admission into the professional phase. Years two through four, or professional phase, are aimed at developing the required core of humanistic knowledge, creative ingenuity and technical craftsmanship that prepare students for professional internship and practice. The capstone year is focused on experimentation and synthesis on specific topics leading to definition and development of optional autonomous or directed work in preparation for professional licensure. The architecture curriculum at Arizona is an ensemble of four subject matters: technologies, theory and history, communication methods and professional practices, all of which must be articulated and integrated as appropriate to each level of the architectural studio sequence.

The delivery of the curriculum is made effective and distributed in three consistent pedagogical settings: studios, laboratories and classrooms. The classroom is the forum of presentation and discussion of theoretical and factual knowledge in support of sensible design. The laboratory is the playhouse of empirical experimentation, testing and demonstration of virtual and real hypotheses of design. The architectural studio is the theater of imaginative propositions of design and synthesis of empirical fact and heuristic theory.

~ Alvaro Malo, Professor of Architecture

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STATEMENT OF PHILOSOPHY

Pedagogical Horizon

The study of architecture at The University of Arizona is grounded on the proposition that architecture is a sensible, technical and aesthetic activity that supports practical needs of body comfort and shelter. Also, it is uplifted by the notion that the making of shelter is an imaginative cultural research that seeks to establish dwelling as a proper human aspiration to a graceful life. Borne out of the landscape as its originating source, this sensibility must be inflected by the identity of the Sonora Desert, the geography of Arizona and the culture of the Southwest — promoting an intertwined land ethic ~ research aesthetic binary. In a modern age of increased exchange and communication, of reliance on ever-changing physical and digital technologies, this education must inevitably become a portable global sensibility. Yet, this portable method of work shall remain observant of local traditions, tempered by material circumstances, and expressive of the ethos of time and place.

Institutional Responsibilities

As mandated in the mission of the University, the study of architecture at Arizona bases its pedagogical practice on an elastic triad: teaching, research and service. These three activities must affect each other by inducing elasticity of boundaries and methods of exchange that make them reciprocal responsibilities of both teachers and students, invigorating learning and turning its product to the benefit of local and global communities.

Architecture is inherently an act of construction that must respond to the realities of site, climate and material resources: familiarity with traditional materials and techniques, and inventive experimentation and testing of new materials and processes of fabrication are critical to the production of materialized ideas and idealized materials. Architecture is also a sensual and intelligent expression of culture: the analysis of functional and aesthetic continuities in buildings, cities, and landscapes and their revisions through time and space are necessary for the preservation and innovation of architecture. The practice of architecture is an act of compliance with and reform of technical protocols, building codes and construction trades: the development of skills of communication, preparation of construction documents, interaction with the public sector and hands-on experience in design/build collaborative projects are finishing touches before graduation and the beginning of practice.

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ADMISSION CRITERIA FOR THE PRE-PROFESSIONAL PHASE

In- and Out-of-State Residents:
To be eligible for admission, students must meet the following criteria:

- 3.0 GPA (on a 4.0 scale)
- 1110 SAT Math & Critical Reading composite score, and/or
- 24 ACT composite score

(You must also complete the coursework requirements listed at the end of this section).

If your grades and/or test scores do not meet the minimum requirements of The University of Arizona's Office of Admissions, but are very close, your records will be automatically referred to the School of Architecture. The School, upon further consideration of course load and content, may admit you to the Preprofessional Phase. For more information, contact the Assistant Dean.

Please note, we ***do not*** require a portfolio for admission into the Pre-Professional Phase.

The University of Arizona requires its entering students to have fulfilled the following coursework during high school. If a student is admitted deficient in any of these courses, he/she will have to fulfill that requirement within the first year of study at the University.

High School Course Requirements:

English Composition	4 units
Mathematics	4 units
Laboratory Sciences	3 units
Social Sciences	2 units
Foreign Language	2 units
Fine Arts	1 units

Applicants must present an unweighted overall grade point average of 2.0 (A = 4.0) in each academic subject area and may not have deficiencies in both math and science.

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CONDITIONS FOR ADMISSION TO THE PROFESSIONAL PHASE

Admission to the Professional Phase of the School of Architecture is a competitive process. In the Pre-Professional Phase (first year), the School admits approximately 200 students to the Pre-Arch major. Of that number, about 90 - 120 typically apply to the Professional Phase and 60 students are then admitted into the Professional Phase of the program. This competitive cut happens once per year: applications are submitted at the end of the spring semester and students are notified of their status in the early summer for the following fall semester.

Application to the Professional Phase is administered by the School of Architecture in accordance with the procedures and policies outlined below. A cumulative GPA of 3.0 is required for admission. However, completion of all Pre-Professional coursework with a 3.0 GPA does not assure a student of admission to the Professional Phase.

Application Requirements:

1. Submittal of a Professional Phase application by the required deadline.
2. Mounting of an exhibit of creative work by the required deadline.
3. Completion of all required Preprofessional phase coursework by the end of the first Summer session.

Students will be given detailed instructions and information about the application process during the Spring semester.

Note: Students who do not meet the minimum standard of a 3.0 cumulative GPA will not be considered for admission. Hardship petitions will be considered.

Philosophy and Procedures:

The philosophy guiding Professional Phase admission is to select those students with the highest potential for success in the program. Final selection is based upon cumulative GPA, and an exhibition of creative work. The admissions formula slightly favors Arizona residents.

Selection for the Professional Phase is made as soon as grades for the Spring and Summer term become available and the verification process can be completed. Students normally know their status by July 20th.

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INFORMATION FOR PROSPECTIVE PREPROFESSIONAL PHASE TRANSFER STUDENTS

Students considering transfer to the architecture program at Arizona should carefully review the following information:

While some required general education and elective coursework may be completed at community colleges, the length of our program and sequencing of the curriculum require **at least 10 semesters at The University of Arizona**. With few exceptions, student must be enrolled at The University of Arizona in the Preprofessional Phase to complete the Arch 101 and 102 Foundations Studios in order to be eligible for admission to the Professional Phase. Therefore, most community college students need to realize that it will take them longer than the standard five years to receive their BArch.

If you are planning to attend community college as a preparatory step towards transferring to The University of Arizona, you can begin to fulfill a number of the required and elective courses. We recommend you take the following courses:

- Two semesters of English Composition
- College Algebra
- Trigonometry
- Physics (with a lab component)
- Basic Drawing (open elective)
- Foreign Language 101 and 102

Students who complete a basic first year of courses, a mini AGEC, or a complete AGEC at community college may find themselves better prepared for the rigorous curriculum in the School of Architecture. Keep in mind, however, that an additional 5 years of coursework at The University of Arizona will be required to receive the BArch. Although this path to your degree can be lengthy, it will result in a lighter course load per semester.

As you and your advisor consider your options, keep the following information in mind:

- Remedial coursework (i.e. English classes below the ENGL 101 level and math classes below the College Algebra level) will not fulfill any of your credit requirements for the School of Architecture.

- If there are a number of Physics courses available at your community college, choose a course that addresses statics and dynamics, mechanics, and vector analysis.

- Courses with grades of "D" will not transfer.

For more information concerning the School of Architecture and transfer issues, see our website (www.architecture.arizona.edu) or contact the School of Architecture and request to speak with an academic advisor (520.621.6751).

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QUESTIONS CONCERNING ADMISSION

How can I verify that I have taken the required coursework for the Pre-professional Phase?
Applicants submitting coursework taken at other institutions must provide verification of completion of all required courses by submitting transcripts, transfer evaluations or grade reports attached to the application for the Professional Phase admission. Verification of equivalency will be established as follows:

English: Applicants submitting coursework taken at an institution outside the State of Arizona must submit written verification in the form of a transfer evaluation or a note from the English Composition Board that the submitted coursework meets the University's English requirement.

Mathematics: Students who have completed College Algebra and Trigonometry or a Calculus course at a college or university for 3 or more units are not required to take Math 110 or 111 but must submit a transcript indicating successful completion of the course. Students submitting coursework taken at another institution must consult with the School of Architecture to determine if the previous coursework is an acceptable equivalent.

Physics: Students submitting course work taken at another institution must consult with the School of Architecture to determine if the previous coursework is an acceptable equivalent. The Physics course must have a lab component.

Courses with a grade of D will not transfer for credit to The University of Arizona. Consultation with the School of Architecture concerning coursework should occur early enough in the year to allow sufficient time for completion of courses if a proposed substitution is not allowed.

If I've taken AP courses in high school, will any of them fulfill my requirements for the Pre-Professional Phase?
Students with AP Calculus credit from high school who have taken the national exam and received a grade of 3, 4, or 5 are given credit for Calculus by the University and have met the math requirement. As for AP English -- a grade of 4 or 5 will fulfill a semester of English , leaving only one required semester of English at the University. Students may also establish credit for MATH 110 (College Algebra), 111 (Trigonometry) or 125 (Calculus) through CLEP exams with a score of 50. High school credit in College Algebra and Trigonometry does NOT meet University requirements.

What if I cannot complete all the required courses during the school year? Can I take summer school?
Students are strongly advised to complete all required first year courses prior to summer session. When students must complete requirements in summer, they are required to do so during pre-session or first summer session (or equivalent). Students completing requirements in second summer session will not be considered for admission except international students completing English 108 over both summer terms. (Students with extenuating circumstances may petition the Admissions Committee for an exception.) Students completing required courses in summer session at other institutions are required to provide the Admissions Committee with early verification of grades earned in summer courses. A "Preliminary Grade Report" form available in the School office is to be submitted for each course.

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NOTES:

The courses and sequencing listed are representative only. They are provided to give prospective students and parents and idea of the content and typical course load in the five year BArch program. Course sequencing will be specific to the individual based on placement tests, transferred coursework, and individual preference.

Note, however, that eligibility for admission to the professional phase requires completion of the following: ENGL 101 and 102 or ENGL 107 and 108; Math 110 or 112, and 111; or Math 124, or Math 125; PHYS 102 and 181; ARC 101 and 102. Level A OPEN Electives are any 100-200 level courses, while Level B OPEN Electives are any 300-400 level courses.

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YEAR BY YEAR CURRICULUM GRID (SAMPLE)

PRE-PROFESSIONAL PHASE

Fall 1st Year	# units	Spring 1st year	# units
ENGL 101 Freshman English	3	+ENGL 102 Freshman English	3
MATH 110 College Algebra	4	PHYS 102 College Physics	3
* OR MATH 112 College Algebra	(3)	PHYS 181 Physics Lab	1
MATH 111 Trigonometry	2	↔ARC 102 Foundation Studio 2	4
↔ARC 101 Foundation Studio 1	4	*Elective Tier 1 TRAD or INDV*	*3*
Elective Tier 1 INDV or TRAD	*3*		
(Foreign Language Deficiency)	(4)	(Foreign Language Deficiency)	(4)
	15 or 16		14

• These courses have prerequisites which must be completed prior to enrollment
(Fall – Admission to School of Architecture)
(Spring - Eng 101 before 102; ARC 101 before 102)
+ These courses must be passed with a grade of "C" or better, before advancing to the next level.
* This course may be substituted for MATH 110, depending on Math Readiness Test score. Student must consult with Math advisor prior to registration.

PROFESSIONAL PHASE

Fall 2nd Year	# units	Spring 2nd Year	# units
•* ARC 201 Design Studio 1-*Composition*	6	• *ARC 202 Design Studio 2-*Performance*	6
• *ARC 221 Building Technology 1	3	• *ARC 222 Building Technology 2	3
• ARC 231 History 1	3	• ARC 232 History 2	3
• *ARC 241 Design Communications 1	3	*ARC 227 Architectural Programming	2
Elective Tier 1 Gender Ethnicity (INDV or TRAD)	3	*Elective - Tier 1 NATS*	*3*
	18		17

• These courses have prerequisites which must be completed prior to enrollment
(Fall - admission to professional phase)
(Spring - ARC 201 before 202 & 227; 221 before 222; 231 before 232)
* These courses should be taken concurrently this semester - they are interrelated and may share assignments.

Fall 3rd Year	# units	Spring 3rd Year	# units
• *ARC 301 Design Studio 3-*Land Ethics*	6	• *ARC 302 Design Studio 4-*Tectonics*	6
• *ARC 321 Building Technology 3	3	• *ARC 322 Building Technology 4	3
• *ARC 341 Design Communications 2	3	• ARC 332 History 3	3
*ARC 326 Site Planning	2	*Elective Tier 2 INDV*	*3*
Elective Tier 1 INDV or TRAD (whichever remains)	*3*	OPEN Elective – (level A)	3
	17		18

• These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 202 before 301; 222 before 321; 241 before 341)
(Spring - ARC 301 before 302; 321 before 322; 232 before 332)
* These courses should be taken concurrently this semester - they are interrelated and may share assignments.

Fall 4th Year	# units	Spring 4th Year	# units
• *ARC 401 Design Studio 5-*Techniques*	6	• *ARC 402 Design Studio 6-*Culture*	6
• *ARC 421 Building Technology 5	3	• *ARC 422 Building Technology 6	3
• *ARC 441 Construction Documents	3	• ARC 459 Ethics and Practice	2
• ARC 471s Urban Form	3	OPEN elective (level A)	3
Elective Tier 2 NATS	*3*	OPEN elective (level A)	3
	18		17

• These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 302 before 401; 322 before 421; 341 & 302 before 441; 332 before 471s)
(Spring - ARC 401 before 402; 421 before 422; 302 before 459)
* These courses should be taken concurrently this semester - they are interrelated and may share assignments.

Fall 5th Year	# units	Spring 5th Year	# units
• ARC 451 Design Studio 7-*Research*	6	• ARC 452 Design Studio 8-*(Committee)*	6
• ARC 498 Capstone Research (452 prep)	2		
Elective Tier 2 HUM	*3*		
OPEN elective (level A)	3	OPEN elective (level B)	3
OPEN elective (level B)	3	OPEN elective (level B)	3
		OPEN elective (level B)	3
	17		15
		TOTAL UNITS TO GRADUATE	**166 (min) or 167**

• These courses have prerequisites which must be completed prior to enrollment
(Fall - ARC 402 before 451 and 498)
(Spring - ARC 451 before 452; 498 before 452)

OPEN elective (level A)	100 & 200 level courses (lower division)
OPEN elective (level B)	300 & 400 level courses (upper division)

A University Minor consists of a minimum of 18 units, 9 of which must be upper division

HONORS AT THE SCHOOL OF ARCHITECTURE

Academic work that carries Honors credit is qualitatively different from that encountered in most undergraduate courses in that it involves an intense, student-centered, active learning process. Honors academic work enables the student to actively engage the material, learn about the scholarly, creative process by participating in it, and personalize the learning experience through imaginative, critical analysis and application. Honors students will learn to express and defend their ideas while attaining the distance necessary to accept constructive criticism.

— Excerpt from a letter by Dr. Patricia MacCorquodale, Dean of the Honors College

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Architecture students who qualify may decide to pursue a **BArch with Honors** at The University of Arizona. Admission into the Honors program is based upon strength of the curriculum taken in high school or college, academic achievements, and performance on standardized tests. A faculty member may also nominate you to the Honors Program after you have been at The University of Arizona for a full semester. To graduate "with Honors", students must complete 30 Honors units (18 if they enter the program as juniors) of which 6 units are the senior thesis. In addition, Honors students must maintain a 3.5 GPA.

Honors classes have an average size of 15 students, and there is usually close personal interaction between professors and students. There is a strengthened focus on writing, speaking, and analytical skills as well as independent research within the framework of the given course topic. Honors students may also receive Honors credit for a non-Honors course by co-creating a contract with the faculty member teaching the course.

Honors freshmen and sophomores are allowed to register with juniors, giving them increased flexibility and reduced competition for class space. Library privileges are enhanced for Honors students: books can be checked out for six months rather than three weeks at a time. Two on-campus computer labs (in Yuma and Yavapai Hall) are reserved solely for Honors students. Over 700 Honors students get a chance to build living-learning communities at four Honors residence halls (Yuma, Yavapai, Posada San Pedro).

While in the School of Architecture, you will fulfill your Honors requirements with the following courses:

Two Semesters of English Composition *(Please note that you are not automatically placed into Honors English. The English Placement Test at Freshman Orientation will determine your courses.)*	6 units
Three semesters of Architectural History	9 units
Two Semesters of Foundation Studio	8 units
Senior Thesis	6 units
Individual Architectural or Elective courses (by contract)	10 units

For further information about the Honors College at The University of Arizona, visit their website at http://www.honors.arizona.edu

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FACULTY

The faculty of the School of Architecture is a group of diverse international origins, educational experiences, professional practice accomplishments and specialties. This diversity of background, point of view and experience represents the many roles and opportunities that are possible in a well-motivated and culturally responsible global practice.

The faculty is inspired by and responsible to the tripartite mission of The University of Arizona: teaching, research/practice and community service. As a necessary consequence many faculty members integrate their teaching with hands-on design/build community based projects, and many have received awards for their professional practice. A particular emphasis on laboratories as necessary asymmetrical empirical twins of the design studios is an inevitable condition of this practical and experimental pedagogy.

As is the tradition of the architectural studio format, the teacher-student relationship is observant of personal differences and does not exceed a 1:15 ratio.

The School maintains a productive relationship with practicing professionals, many of whom are alumni of the College. They participate as part-time design teachers, visiting lecturers and are guest critics at reviews of student projects. Field visits to architects' offices, construction sites and internship programs, while in school, offer the diversity of work experiences that will be available after graduation.

Appointed Personnel
Janice Cervelli, FASLA, FCELA, Dean
R. Brooks Jeffery, Associate Dean & Coordinator of Preservation Studies
Susan K.E. Moody, Assistant Dean
Laura H. Hollengreen, Interim Director of the School of Architecture

Professors
Nader Chalfoun
Dennis Doxtater
Mary Hardin
Álvaro Malo
R. Larry Medlin
Charles M. Poster
Peter Testa (Visiting)

Associate Professors
Christopher Domin
John Folaln
Laura Hollengreen

Assistant Professors
Beth Weinstein

Assistant Research Professor
Richard R. Brittain

Adjunct Professor
Richard Williams, FAIA

Lecturers
John Messina
Annie Nequette
Tom Powers
Chris Trumble

Adjunct Lecturers
Colbi Campbell
Kacey Carlton
Laura Carr
Madeline Gradillas
Darci Hazelbaker
Bob Joyce
Michael Kothke
Bill Mackey
Colby Moeller
Hilary Meehan
Lester Mismash
Mark Mismash
Andy Powell
Paul Reimer
Matt Sears

For more information and faculty bios, please visit the following sites:
http://cala.arizona.edu/
http://architecture.arizona.edu/

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COMPUTING IN THE SCHOOL OF ARCHITECTURE

The School of Architecture faculty believes most students will be "tool users" rather than "tool builders." As a result, the computer curriculum is focused on software applications and not computer programming. Students are expected to be conversant with the PC platform before taking the first required computer course, ARC 241, in second year. This platform is the one used in a majority of architectural and engineering firms.

Computers are formally introduced to the students early in the curriculum so they will have the necessary tools for a majority of their future architectural courses. The first computer course entitled "Design Communications 1" gives the students a hands-on experience with desktop publishing, perspective drawing, CAD, and color presentations on the computer. Students are required to have prior experience with word processing, spread sheet analysis, and operating systems.

Upper division and graduate students desiring advanced research in computer graphics or energy analysis may elect to take an advanced CAD and modeling course, a multi-media computer class, or two energy analysis courses. Students use this computer knowledge in their advanced building technology classes, studios, and graduate research.

You are entering your studies at a very exciting time technologically – computers are a part of everyday life. In recognition of this, students in our School are required to purchase personal computers upon entering the Professional Phase.

This decision was made not only from a curriculum standpoint, but also from an awareness that most architectural firms rely heavily on computers in their practice. Computer literacy helps architecture graduates compete favorably in the future job market.

The University of Arizona and the College of Architecture and Landscape Architecture have made a commitment to build and maintain an infrastructure to support student computing activities at both the School and University level. Classrooms and lecture halls are being provided with electronic projection systems and labs are being upgraded with state of the art computing resources. The School provides links to the campus network and the Internet, and computers and software are available for use in the computer lab. In addition, students will be able to connect to plotters, scanners, printers, digital cameras, large color monitors and large screen projection systems. The University provides electronic access to the local library system and, through the Internet, access to libraries and databases worldwide. The campus is a place where computers are used regularly for class assignments in lecture, laboratory and studio courses.

– School of Architecture Computer Committee

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CONSIDERING A CAREER IN ARCHITECTURE

Are you ...
Intelligent? Curious? Analytical? Observant? Self-disciplined? Creative? Responsible? Able to communicate ideas effectively?

Perhaps the field of architecture is for you!

The Profession
If I were to try to define architecture in a word, I would say that architecture is a thoughtful making of spaces. It is not filling prescriptions as clients want them filled. It is not fitting uses into dimensional areas. It is nothing like that. It is a creating of spaces that evoke a feeling of use; spaces which form themselves into a harmony good for the use to which the building is to be put.
— Louis Kahn

Architects are professionals trained in the art and science of design. They organize the spaces in which we all live and play. As creative problem solvers, architects must balance a variety of factors in projects involving both new and existing construction. Their work may range in scale from the design of an individual room to the development of a comprehensive urban plan.

Professionals typically begin a project by working with the client on a *program*, assessing and analyzing the building requirements. As they design the building, architects keep in mind the spatial relationships of the interiors, the structural, electrical, and mechanical systems, as well as the economics and aesthetics of the project. Next they plan, design, and produce drawings and specifications for construction. Work may also involve the building of models, graphic presentation of design proposals, and design of landscaping, interiors and furniture. Once plans and specifications have been approved, the architect helps the client choose a contractor and draw up a contract. At the building site, the architect observes the construction process, checking to make sure the building is constructed according to the construction documents. Architects may also be involved in a number of related processes: choosing building sites, preparing land use studies, assessment and restoration of historic properties, space planning, and feasibility studies.

Architecture is not a single career path, but an entry point to many avenues of opportunity. The architecture graduate may pursue a traditional practice, providing professional services to clients in connection with the planning, design and construction of building projects. Many architects will choose to specialize in a particular area of practice, management, or building type. Others will oversee the planning and construction projects of a government agency, institution, or large corporation. A few elect teaching, research, and writing careers. Still others will enter allied fields such as planning, engineering, construction, or graphic, industrial or interior design.

We Recommend . . .
. . . if you are interested in architecture, that you take time to explore the field. Visit the design studios of a school of architecture. Tour the offices of local firms and talk with local practitioners. Read books and magazines on architecture. Contact the local chapter of the American Institute of Architects; they are an excellent source of information. Make every effort to gain a broad understanding of the demands of architectural study, the nature of an architect's work, and the values of the profession.

Fall 2009-Spring 2010

The University of Arizona
cala
Architecture

STATEMENT FROM THE NAAB
(NATIONAL ARCHITECTURAL ACCREDITING BOARD)

NAAB, the National Architectural Accrediting Board, has requested that the following statement be included in the catalogs and promotional material of all fully accredited schools of architecture.

"In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards."

"Master's Degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree."

The five year professional program leading to the Bachelor of Architecture degree at the University of Arizona is fully accredited by the National Architectural Accrediting Board (NAAB). *The University of Arizona does not offer a four-year preprofessional degree.*

STEPS TO BECOMING A REGISTERED ARCHITECT

The National Council of Architectural Registration Boards (NCARB) provides the following guidelines:

Step One: Meet Educational Requirement
Earn a professional degree from a program accredited by the NAAB.

Step Two: Complete Internship
The Intern Development Program helps you apply your education to real world professional practice.

Step Three: Become Registered
You must pass the Architect Registration Examination (ARE) to become a registered architect in all jurisdictions.

Step Four: Get Certified
The NCARB Certificate is the final credential you should obtain. Certification recognizes registered architects who meet the profession's highest standards. Certificate holders automaticallly qualify for reciprocal registration in most jurisdictions and a growing number of foreign countries.

The University of Arizona
School of Architecture Graduate Program

MASTER OF ARCHITECTURE

The Master's programs draw on the Sonoran Desert bioregion and the southwest culture as incomparable laboratories for research and experimentation, promoting advanced architectural work that intertwines with precision the School's philosophy of *land ethic~aesthetic research.*

The laboratories of the School and the University focus and intensify the opportunities of inquiry as applied research and experimentation within the domain of each concentration area.

Post-Professional Master of Architecture Degree Program

1 ½ year design/research program for students with 5-year Bachelor of Architecture degrees from accredited architecture schools, who do not require an additional accredited degree in order to qualify for NCARB certification. Completion requirement: 35-38 units of credit, including a Master's Thesis or Master's Design/Research Project Report. A Master's Thesis is aimed at focused research ona specific architectural topic. A Master's Project Report is aimed at architectural investigations requiring intensive project design development.

Joint B.Arch/M.Arch Degree Program

A 2.5 to 3-year program for graduates of 4-year undergraduate architecture programs and international students interested in an American accredited degree for NCARB certification. Successful applicants are admitted to the M.Arch and the accredited B.Arch programs concurrently. Completion requirements: students must satisfy the requirements of both degrees. Upon receipt of a complete application packet, we provide applicants to this program with a detailed course evaluation and an estimate of the time it will take to complete both degrees.

Areas of Concentration

Design & Energy Conservation

Research of the theory and principles relating to design, energy conservation and research of methods applicable in different climatic regions throughout the world.

Emerging Material Technologies

Research of the properties of traditional and new building materials, seeking quantitative measures of physical efficiency and qualitative criteria of sensorial performance.

Preservation Studies

Research of the built environment as part of a comprehensive conservation ethic – the curriculum which includes a Certificate in Preservation Studies, is interdisciplinary.

Urban Design & Infrastructure

Research of urban phenomena as the integration of many topics threading and expanding the boundaries of the disciplines of architecture, landscape architecture, and city planning.

Other topics can be pursued as an **Independent Research Option**, requiring clearly defined proposals to be submitted with the application. When admission has been confirmed, the Graduate Committee will suggest faculty advisors and facilitate further correspondence.

The University of Arizona
School of Architecture Graduate Program

THE LEARNING ENVIRONMENT

Students and Faculty

The School of Architecture's total enrollment of about 350 students includes approximately 28-30 graduate students from all over the United States and abroad. In our small program, students benefit from close personal attention from a diverse faculty of 20 full-time and approximately 12 adjunct members. The architecture curriculum is enriched by national and international visiting scholars, and an outstanding lecture series featuring national and international scholars and practitioners in art and the design disciplines.

Location

Situated in the Sonoran Desert, Tucson is a very old community that began as a prehistoric Hohokam settlement. Once it was a walled Spanish colonial outpost. Today it is one of the country's fastest-growing Sun Belt cities and is proud of being the historical and cultural heart of Arizona. Its sunny skies and mild winter climate make it an ideal lace to live and study.

The University of Arizona

Founded in 1885, the University of Arizona is ranked by the National Science Foundation as one of the top twenty research universities in the nation. The UA's 2,400+ faculty members serve approximately 37,000 students in 123 undergraduate, 117 Master's, and 83 doctoral programs. The university's 18 colleges and 12 schools are located on a tree-studded 378 acre campus in the heart of Tucson.

EXTERNAL CONNECTIONS

Collaboration with other disciplines within the College and the University provides enhanced prospects for ***interdisciplinary research***. The University of Arizona is ranked among the top twenty research university in the United States, and many academic units are in the highest tier worldwide. Internationally, we have established ***academic and research exchanges*** with prestigious schools of architecture in Latin America, Europe, and Australia – and continue to develop collaborations in other regions with institutions that have similar research agendas. Graduate students at Arizona have opportunities for ***national and international internships.*** After graduation, they find placement in prestigious firms throughout the United States and the world. Many return to their countries of origin to occupy positions of leadership in professional practice, research and higher education.

Due to its tightly structured curriculum, students in the 1 ½ year M.Arch program are encouraged to complete their degree program within the college, but become eligible for international internship placement after graduation. Students in the joint B.Arch/M.Arch program have more flexibility and may elect to spend a semester abroad, in consultation with their faculty advisor.

Current international exchange partners:

Australia:	University of Newcastle
	University of Sydney
	University of Technology, Sydney
Chile:	Ponteficia Universidad Católica de Chile (PUC)
Mexico:	Universidad La Salle
	Universidad Nacional Autonoma de Mexico (UNAM)
Spain:	Universidad Politecnica de Madrid

The University of Arizona
School of Architecture Graduate Program

COST OF STUDY

Projected Student Funding and Expenses, Academic Year 2009-2010

The School of Architecture offers financial assistance to approximately 84% of its students, depending on the availability of funds. Awards are based on merit and typically are continued as long as students continue to make satisfactory academic progress. The specifics of the financial assistance package may change after the first academic year.

Financial Aid Awards Available to Students

Type of award	Fall	Spring	Notes
Teaching/Research Assistantship (TA/RA): salary	$2,546	$2,546	$5,092 per year
TA/RA: GTS coverage: 12+ units. Covers out-of-state tuition.	$6,318	$6,318	$12,636 per year
TA/RA: Base Tuition Remission. This amount is deducted from your in-state tuition. NOTE: M.Arch in-state tuition = $3,532/sem.)	$1,516	$1,516	$3,032 per year = 50% of standard UA base tuition ($6,064) for .25 appointment at 7+ credits enrollment.
TA: health insurance	$601	$841	$1,442 per year (subject to change)
Graduate Tuition Scholarship (GTS): covers tuition, available to out of state students only.	Variable, up to $6,318	Variable, up to $6,318	$12,636 per year maximum
Graduate Tuition Scholarship: covers in-state tuition, available to all students..	Variable, up to $3,532	Variable, up to $3,532	$7,064 per year maximum.
Fellowship	Variable, from $1,000 per year		Available only to students in their first year.

Basic Student Educational Expenses:

Expense type	Per semester (Fall)	Per semester (Spring)	Per year (Fall + Spring)
Out of state tuition (= maximum, at 12+ credit enrollment)	$6,318	$6,318	$12,636
In-state tuition (= maximum, at 7+ credit enrollment)	$ 3,532 (at 7+ credit enrollment)	$3,532	$7,064
Health insurance *	$601 ,	$841	$1,442
Misc. fees levied by Bursar	$134.06	$134.06	$268
Orientation fee (international)*	$75	$75 (Spring admits only)	$75
International Student Fee*	$70	$70	$140
Total:	**$10,730.06**– Fall, non-resident International **$10,585.06** – Fall, non-resident domestic **$4,267.06** – Fall, AZ Resident	**$10,895.06** – Spring, internat'l **$10,825.06** - Spring, non-res. Domestic **$4,507.06** – Spring AZ resident	**$21,625.12** International **$21,410.12** – Non-resident domestic **$8,774.12**– AZ resident

The University of Arizona
School of Architecture Graduate Program

Other Financial Assistance

Information about a variety of grants, loans, Federal Work Study and tuition awards is available at the University of Arizona Office of Student Financial Aid website: http://financialaid.arizona.edu
Additionally, the Graduate College offers extensive information, including a number of searchable databases, for enrolled students who are interested in obtaining grant funding:
http://grad.arizona.edu/Current_Students/Financial_Resources/Other_Resources.php

Living and Housing Costs

University housing (La Aldea) is available for single and married graduate students at costs ranging from $845 per month in a one-bedroom apartment to $565 per person in a four-bedroom, 4 bath apartment. Most students live in privately owned apartments or houses near campus. Living expenses are comparable to other urban areas throughout the western United States. Additional information may be obtained from the Department of Residence Life: http://www.life.arizona.edu

The Admissions Process

- Complete applications are continuously reviewed by the Graduate Executive Committee, composed of faculty, administrators, and a student representative.
- The School recommends successful candidates to the Graduate College, which makes the official admission decision.
- Admission decisions are communicated to applicants as soon as they are known, both by the Graduate College and the School of Architecture Graduate Program.
- The Graduate College mails official certificates of admission to the successful candidates.
- The School of Architecture Graduate Program sends out financial aid award letters in early April.
- International students receive visa application paperwork by special delivery as soon as admission and financial aid decisions have been finalized, typically in early April.
- All admitted students receive a packet of detailed information about registration, tuition, fees and billing, how to order textbooks, computer specifications, parking, housing, a new student orientation schedule, and more.
- Incoming students attend a graduate reception and orientation in the week before classes start, to meet current and new graduate students in Architecture and Landscape Architecture, as well as faculty and staff.

We encourage dialogue throughout the application and admissions process, and strive to respond to your questions within 24 hours. Anyone thinking about applying to our program is encouraged to ***visit our campus.*** We do not have a standard open house date, but are happy to meet with individual visitors at a time that best suits their schedule. Although we are open year-round, we suggest that you plan your visit during the period September- April, when students and faculty are present and classes are in session.

Contact: Linda Erasmus, Program Coordinator
erasmus@email.arizona.edu
(520) 621-9819

The University of Arizona
School of Architecture Graduate Program

Graduate Program Application Procedure

Application materials must be sent to two separate departments within the University of Arizona. One packet is sent to the University of Arizona Graduate College, and the other to the School of Architecture. Application packets cannot be reviewed for admission until all the materials are received by both departments, exactly as described below.

The University of Arizona no longer distributes hard copy application forms. Prospective students are encouraged to apply online, or download an application form to be mailed along with the other required materials.

Apply online or download application form:
http://grad.arizona.edu/prospective-students/apply-now

Send To the Graduate College Graduate Admissions Office Admin Building Room 322 P O Box 210066 The University of Arizona Tucson, AZ 85726 8823	**Send To the School of Architecture** School of Architecture Graduate Program The University of Arizona 1040 N. Olive Street P O Box 210075 Tucson, AZ 85721-0075
Domestic students:	**Domestic Students:**
• Copy of the application form, signed and completed in detail (not required of applying online). • Application fee: $50, payable to *The University of Arizona*, or paid online with web application • Domicile Affidavit if claiming Arizona residence for tuition purposes. • Deadline - For Fall 2009 admission: Feb. 1, 2009 • Deadline – For Spring 2010 admission, Feb. 1 2009*	• Copy of the completed application form (not required if applying online). • Three letters of recommendation. • Portfolio (include pre-paid, self-addressed envelope if you wish to have it returned to you). • Official transcripts of all colleges or universities attended. Minimum GPA: 3.0. If applying to the joint B.Arch/M.Arch program, two sets of transcripts are required. • Résumé • Statement of intent, specifying concentration area • GRE score report (optional)
International Students:	**International Students:**
• Copy of the application form, signed and completed in detail (not required if applying online). • Application fee: US$50.00, payable to *The University of Arizona*, or pay online. • TOEFL score report (minimum 213CBT/80iBT) or IELTS (min. score 7 overall, min 6 each subtest/band). TOEFL must be dated within 2 years of the semester you wish to enter. • Financial Guarantee • Deadline – for Fall 2009 admission, Dec. 1, 2008. • Deadline for Spring 2010 admission: Feb. 1, 2009*	• Copy of completed application form (not required if applying online). • Three letters of recommendation. • Portfolio. Include pre-paid, self-addressed envelope if you wish to have it returned to you. • Official transcripts of all colleges and universities attended, with certified English translations if applicable. • Official degree certificate, with official translation. • Résumé • Statement of intent, specifying concentration area. • GRE score report (optional)

* Financial aid allocations are made in April each year for the entire upcoming Fall-Spring academic year. Therefore, students who wish to enter in Spring and wish to be considered for financial aid must meet the Fall application deadline.

The University of Arizona
School of Architecture Graduate Program
APPLICATION FOR TEACHING OR RESEARCH ASSISTANTSHIP

Include this form in the packet of application materials that you send to the **School of Architecture, The University of Arizona, P.O. Box 210075, Tucson, Arizona 85721**. Please note that all students will be considered for all forms of financial assistance available (fellowships, teaching or research assistantships, tuition waivers and registration waivers). Completion of this form is required only if you are interested in a teaching or research assistantship. Financial assistance is limited, and completion of an application does not guarantee an award. **International applicants** must complete the Internet-based version of the TOEFL test in order to be considered for a teaching assistantship.

_____

Family Name Given Name Middle Name

Semester applying for: [ ] Fall [ ] Spring Year: _____

Concentration area: _____

Undergraduate Major:_____ Minor:_____

Previous Grad. Major:_____ Minor:_____

Please check the specialty area(s) in which you are most qualified to serve as a teaching assistant. If you check more than one box, please indicate rank order (use 1, 2, 3, etc., 1 being the highest rank).

[ ] Design Studio [ ] Arch. History/Theory [ ] Building Technology

[ ] Practice and Ethics [ ] Design Communication

List titles of all publications (including thesis titles, giving full bibliographic references:

_____

_____

_____

List all teaching positions held, beginning with the most recent:

Employer Position Dates

_____

_____

_____

Applicant's Signature:_____ Date:_____

For office use only: GEC faculty reviewer: please indicate your assessment of the applicant's strengths for TA in rank order, 1 being the highest rank.

[ ] Design Studio [ ] Arch History/Theory [ ] Building Technology

[ ] Design Communication [ ] Practice & Ethics [ ] Other (specify)_____

The University of Arizona
School of Architecture Graduate Program

Design & Energy Conservation
M.Arch Concentration

MISSION

This program is aimed at advanced understanding of the theory and principles relating to design, energy conservation and research of methods applicable in different climatic regions throughout the world. Research activities include development of site survey methods, field test instruments, and new computer programs for specialized research methods and energy systems.

CURRICULUM

Fall 1	A. Research Studio – ARC 601	6 credits
	B. Required Support Courses:	
	a. Computer Energy Analysis – ARC 561d	3 credits
	b. Research Methods – ARC 597a	3 credits
		12 credits
Spring 1	A. Graduate Research – ARC 900	6 credits
	B. Required Support Course:	
	a. Advanced Computer Energy Analysis – ARC 561e	3 credits
	C. Elective Courses*:	
	a. Special Projects in Architecture – ARC 597b	
	b. Architecture Advanced Electives	
	c. Landscape Architecture Electives	
	d. Electives from other disciplines, as relevant	3 credits
		12 credits
Fall 2	A. Graduate Thesis – ARC 909 or ARC 910 (Includes publication and dissemination techniques)	8 credits
	B. Elective Courses*	
	a. Architecture Advanced Electives	
	b. Landscape Architecture Electives	
	c. Electives from other disciplines, as relevant	3 credits
		11 credits
	TOTAL	**35 CREDITS**

- Choice of electives will be made in consultation with faculty advisor
- By Graduate College policy, only 3 units total of Internship and/or Independent Study ma be counted towards the degree.

FACILITIES & RESOURCES

Theoretical learning is verified by empirical research in the laboratories of the School of Architecture — especially in the Center for Design & Energy Conservation. Applied research is conducted in the "House Energy Doctor" (HED) program, which specializes in experimental simulation and testing of indoor and outdoor design ideas within specific climatic contexts. Laboratories: Multimedia computer energy simulation and one of the largest solar "Heliodons" (24 foot hemisphere) in the southwest. An outdoor thermal comfort research oasis, where advanced data acquisition instrumentation with state-of-the-art wireless sensor technology is used. Artificial Uniform Overcast Sky Simulator apparatus (1,200 Foot-candle), used for daylight testing and photometric measurements in physical models. Information contact: Nader Chalfoun, Professor & Coordinator (chalfoun@u.arizona.edu)

The University of Arizona
School of Architecture Graduate Program

Emerging Material Technologies
M.Arch Concentration Area

MISSION

This program is aimed at advanced analysis, testing and modeling of the properties of traditional and new materials, seeking quantitative measures of physical efficiency: i.e., mechanical, structural, thermal, optical, etc.; and qualitative criteria of sensorial performance: i.e., auditory, haptic, kinetic, visual, etc. A final purpose is to establish a dual protocol of precise observation and imaginative experimentation where the material becomes *plastic*, in the laboratory space available to the free and ordered play of invention, where a conservation of force as well as a conservation of material is realized, obtaining a true economy of production —conceptual, ethical and aesthetical.

CURRICULUM

Fall 1	A. Experimental Laboratory/Research Studio – ARC 601	6 cu
	B. Required Support Courses:	
	a. Materials: Properties & Tests – ARC 561i	3 cu
	b. Research Methods – ARC 597a	3 cu
		12 cu
Spring 1	A. Graduate Research – ARC 900	6 cu
	B. Required Support Course:	
	a. Materials: Modeling – ARC 561j	3 cu
	C. Elective Courses*:	
	a. Special Projects in Architecture – ARC 597b	
	b. Architecture Advanced Electives	
	c. Material Sciences: Electives	
	d. Engineering: Electives	3 cu
		12 cu
Fall 2	A. Graduate Thesis – ARC 909 or ARC 910 (Includes publication and dissemination techniques)	8 cu
	B. Elective Courses*	
	a. Architecture Advanced Electives	
	b. Electives from other disciplines, as relevant	3 cu
		11 cu
	TOTAL	**35 CU**

- Choice of electives will be made in consultation with faculty advisor
- By Graduate College policy, only 3 units total of Internship and/or Independent Study may be counted towards the degree

FACILITIES & RESOURCES

The School of Architecture has the traditional array of shops for testing and fabrication with wood, metals, and concrete; and, basic equipment for glass annealing, and ceramics casting and forming. It has recently acquired Rapid Prototyping & Digital Fabrication equipment with capacity for CNC milling, 3D printing, cutting and routing for precise production of surfaces of complex curvature. In fall '06, all of these will be housed in a 12,000 SF integrated laboratory —a *homo faber's* sanctum. There is also collaboration with and access to the laboratories of the departments of Engineering and Material Sciences and the university high-end shops for fabrication of prototype scientific instruments.

Information contact: Álvaro Malo, Professor & Director, (malo@u.arizona.edu)

The University of Arizona
School of Architecture Graduate Program

Certificate in Preservation Studies
M.Arch Concentration Area

MISSION

This program is aimed at understanding the preservation of the built and natural environments as part of a comprehensive conservation ethic. The interdisciplinary curriculum, which includes a Certificate in Preservation Studies, is intended to develop practical expertise in architectural preservation and its allied fields. It promotes the collaborative engagement between public and private institutions, and incorporates community service as a method of learning.

CURRICULUM

Fall 1	A. Research Studio – ARC 601	6 cu
	B. Required Support Courses:	
	a. Intro. to Conservation of Cultural Resources – ARC 571f	3 cu
	b. Research Methods – ARC 597a	3 cu
		12 cu
Spring 1	A. Graduate Research – ARC 900	6 cu
	B. Required Support Course:	
	a. Document. & Interpret. Historic Built Environment – ARC 597j	3 cu
	C. Elective Courses*:	
	a. Special Projects in Architecture – ARC 597b	
	b. Cultural Resources Archaeology – ANTH 595a	
	c. Architecture Advanced Electives	
	d. Landscape Architecture Electives	
	e. Electives from other disciplines, as relevant	3 cu
		12 cu
Fall 2	A. Graduate Thesis – ARC 909 or ARC 910 (Includes publication and dissemination techniques)	8 cu
	B. Elective Courses*	
	a. Architecture Advanced Electives	
	b. Landscape Architecture Electives	
	c. Electives from other disciplines, as relevant	3 cu
	C. Internship (required, not graded)	3 cu
		14 cu
	Total	**38 cu**

- Choice of electives will be made in consultation with faculty advisor
- By Graduate College policy, only 3 units total of Internship and/or Independent Study ma be counted towards the degree.

FACILITIES & RESOURCES

Preservation Studies is taught by an interdisciplinary group of University of Arizona faculty with access to a variety of materials conservation laboratories and research units specializing in the Greater Southwest. The program receives specific project funds from National Park Service through an inter-agency Cooperative Ecosystem Study Unit (CESU) that integrates cultural resource needs with technical expertise of faculty and students. Students may be eligible for financial support from the Integrative Graduate Education and Research Traineeship (IGERT) program of the National Science Foundation through the University's Department of Anthropology. For further information contact: Brooks Jeffery, Coordinator (rbjeffer@u.arizona.edu)

The University of Arizona
School of Architecture Graduate Program

Urban Design & Infrastructure
M.Arch Concentration Area

MISSION

This program is aimed at understanding urban phenomena as the integration of many fields of research threading and expanding the boundaries of the disciplines of architecture, landscape architecture and city planning. The aim of the curriculum is to establish the requisite awareness and understanding of a land ethic that insures the compatibility of the urban form with the bioclimatic realities and cultural lifestyles of the American southwest. It draws its pedagogic matrix on the Sonoran Desert bioregion and the rapid urban transformation and growth of the southwest and the City of Tucson in particular.

CURRICULUM

Fall 1	A. Research Studio – ARC 601	6 cu
	B. Required Support Courses:	
	a. Theory & Principles of Urban Design – ARC 571s	3 cu
	b. Research Methods – ARC 597a	3 cu
		12 cu
Spring 1	A. Graduate Research – ARC 900	6 cu
	B. Required Support Course:	
	a. Case Studies in Urban Design – ARC 597t	3 cu
	C. Elective Courses*:	
	a. Special Projects in Architecture – ARC 597b	
	b. Architecture Advanced Electives	
	c. Landscape Architecture Electives	
	d. Electives from other disciplines, as relevant	3 cu
		12 cu
Fall 2	A. Graduate Thesis – ARC 909 or ARC 910 (Includes publication and dissemination techniques)	8 cu
	B. Elective Courses*	
	a. Architecture Advanced Electives	
	b. Landscape Architecture Electives	
	c. Electives from other disciplines, as relevant	3 cu
		11 cu
	Total	**35 cu**

- Choice of electives will be made in consultation with faculty advisor
- By Graduate College policy, only 3 units total of Internship and/or Independent Study ma be counted towards the degree.

FACILITIES & RESOURCES

As part of its urban design outreach, the School of Architecture has entered into a collaborative agreement with the City of Tucson to help the city in its redevelopment of the downtown core. The downtown studio has become an experimental laboratory for research of the complex realm of urban design practice. Students are involved in investigating a multiplicity of projects including alternatives for downtown housing, options for redesign of the Santa Cruz River corridor, the I-10 Freeway corridor, the Tucson Convention Center district and investigating potential pedestrian movement systems to make the city a lively cultural experience.

Note: *The Urban Design and Infrastructure graduate concentration area is temporarily without a faculty coordinator. However, the School does intend to maintain that focus of study and to fill the position currently vacant; in the meantime, we will accommodate current and prospective students in that area by means of courses and advising provided by other faculty members in the School of Architecture and elsewhere in the College of Architecture and Landscape Architecture. Inquiries about a program of study in Urban Design and Infrastructure should be addressed to Linda Erasmus, Program Coordinator, at erasmus@email.arizona.edu.*

Dear Holly,

Thank you for your inquiry into the **Master of Architecture Program at the University of Arizona.** A brochure has been mailed to you. In the meantime, you are encouraged to explore the following sources of detailed, web-based information that will be helpful in your decision making process.

Two important notes:

1. Admission to the M.Arch program takes place in Fall and Spring. Deadline: February 1 for either Fall or Spring admission. Admission and financial aid decisions are communicated to applicants by early April. Financial aid allocations are made in April for the entire upcoming Fall-Spring academic year; therefore, the February 1 deadline applies to all applicants. Spring applicants who do not wish to be considered for financial aid may use the standard Spring application deadline of October 1.
2. Persons who already have a Master of Architecture degree are not eligible for admission to this program.

- **How to apply:** You may apply online, or on paper. *Remember*: applicants must send application materials to the Graduate College, as well as to the School of Architecture. See detailed instructions on our website: http://architecture.arizona.edu/admissions.asp
- **School of Architecture – Graduate Program information:** http://architecture.arizona.edu/programs.asp?topic=post-professional
- **U of A Graduate College: General information for all prospective graduate students:** http://grad.arizona.edu/
- The **University of Arizona** home page: http://www.arizona.edu. Learn about the history and resources of this highly ranked research university.
- **University of Arizona Fact Book**: http://oire.arizona.edu/UAFactBook.asp
- **Schedule of Classes**: http://garnet.ccit.arizona.edu/schedule.cgi
- **Tuition, fees & expenses:** see the Bursar's web site at: http://www.bursar.arizona.edu/
- **Student Financial Aid information**: http://w3.arizona.edu/~finaid/index.htm
- **University Residency Requirement** Learn more about legal Arizona residency requirements for tuition purposes: http://www.registrar.arizona.edu/residency/aborreq.htm
- **GRE** information website: http://www.gre.org/ *Note*: The GRE is not required for admission to the M.Arch degree program. A high GRE score may, however, compensate somewhat for a lower GPA.
- **Campus Map:** http://iiewww.ccit.arizona.edu/uamap/
- **Off-Campus Housing** information: http://www.union.arizona.edu/csil/csa/
- **Metropolitan Tucson Convention & Visitors Bureau**: http://www.visitTucson.org

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We appreciate your interest in the Graduate Program in Architecture, and look forward to receiving your application. Please feel free to contact me if you have any questions.

Linda Erasmus, Program Coordinator
Graduate Program of Architecture
University of Arizona
1040 N. Olive
P.O. Box 210075
Tucson, AZ 85721-0075
(520) 621-9819

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2. Persons who already have a Master of Architecture degree are not eligible for admission to this program.

- **How to apply:** You may apply online, or on paper. *Remember*: applicants must send application materials to the Graduate College, as well as to the School of Architecture. See detailed instructions on our website: http://architecture.arizona.edu/admissions.asp

- **School of Architecture – Graduate Program information:** http://architecture.arizona.edu/programs.asp?topic=post-professional

- **U of A Graduate College: General information for all prospective graduate students:** http://grad.arizona.edu/

- The **University of Arizona** home page: http://www.arizona.edu. Learn about the history and resources of this highly ranked research university.

- **University of Arizona Fact Book**: http://oire.arizona.edu/UAFactBook.asp

- **Schedule of Classes**: http://garnet.ccit.arizona.edu/schedule.cgi

- **Tuition, fees & expenses:** see the Bursar's web site at: http://www.bursar.arizona.edu/

- **Student Financial Aid information**: http://w3.arizona.edu/~finaid/index.htm

- **University Residency Requirement** Learn more about legal Arizona residency requirements for tuition purposes: http://www.registrar.arizona.edu/residency/aborreq.htm

- **GRE** information website: http://www.gre.org/ *Note*: The GRE is not required for admission to the M.Arch degree program. A high GRE score may, however, compensate somewhat for a lower GPA.

- **Campus Map:** http://iiewww.ccit.arizona.edu/uamap/

- **Off-Campus Housing** information: http://www.union.arizona.edu/csil/csa/

- **Metropolitan Tucson Convention & Visitors Bureau**: http://www.visitTucson.org

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We appreciate your interest in the Graduate Program in Architecture, and look forward to receiving your application. Please feel free to contact me if you have any questions.

Linda Erasmus, Program Coordinator
Graduate Program of Architecture
University of Arizona
1040 N. Olive
P.O. Box 210075
Tucson, AZ 85721-0075
(520) 621-9819

ADMISSION CRITERIA

Students need to go through a selective admissions process. Factors include, but are not limited to: class rank, strength of curriculum and performance in curriculum, grade point average in required core academic areas, leadership, service, and extracurricular activities.

Key criteria for admission include:

- 3.0 GPA
- 1110 SAT (Math & Critical Reading)
- 24 ACT

High school course requirements (with a minimum GPA of 2.0 in each):
English Composition (4 units)
Mathematics (4 units)
Laboratory sciences (3 units)
Social Sciences (2 units)
Foreign Languages (2 units)
Fine Arts (1 unit)

STATEMENT OF THE NAAB

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards. ..Master's degrees may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

PROGRAM STRENGTHS

What are this program's greatest strengths?

- Small, fully accredited program
- Good student-faculty ratio
- A well-rounded curriculum
- Hands-on experience
- Excellent faculty

PROGRAM RANK

- 2006 *DesignIntelligence* regional ranking: #4
- 2009 *DesignIntelligence* national ranking: #12

Want to learn more? Contact us:
520.621.6751
cala@email.arizona.edu
http://cala.arizona.edu/
http://architecture.arizona.edu/

SCHOOL OF ARCHITECTURE

cala College of Architecture and Landscape Architecture

THE UNIVERSITY OF ARIZONA.
Arizona's First University.

IN ARCHITECTURE?

ARE YOU....

Intelligent? Curious? Analytical?
Observant? Self-disciplined? Creative?
Responsible?

Able to communicate ideas effectively?

Perhaps the field of architecture is for you!

WHAT DO ARCHITECTS DO?

Architects are professionals trained in the art and science of design. They organize the spaces in which we all live and play. Their work may range in scale from the design of an individual room to the development of a comprehensive urban plan.

More examples of what Architects do:

- Design and problem-solve

spatial relationships; structural, mechanical and electrical systems; economic factors.

- Plan and produce drawings and construction specifications.
- Build models or other graphic representations.
- Help clients choose a contractor and draw up the contract.
- On site, monitor the construction process.
- May assist with choosing building sites, feasibility studies, assessing and restoring historic properties.

ALLIED FIELDS

- Planning
- Engineering
- Construction
- Graphic/industrial/interior design

Compensation Levels – Architecture Technical Staff

Title	Low Mean	High Mean	Top 20%
Architect 5+ years experience	$ 46,030	$ 60,230	$ 70,954
Architect 10+	$ 59,834	$ 76,725	$ 94,055
Architect 15+	$ 68,560	$ 87,273	$ 115,000
Project Manager 10+ years experience	$ 65,836	$ 87,318	$ 105,000
Project Manager 15+	$ 78,881	$ 103,262	$ 137,500
Associate Principal	$ 88,883	$ 108,100	$ 147,500
Principal – Non-owner	$ 112,000	$ 150,000	$ 225,500
Principal – Owner	$ 126,620	$ 177,320	$ 250,000

Design Intelligence Professional Practices Survey, 2006

PROGRAM DESCRIPTION

- **Program Description:** A five-year professional degree program, accredited by the National Architectural Accrediting Board.
- **Structure:** Qualified applicants are automatically admitted to the one-year pre-architecture phase. At the end of that year, students apply for admission to the professional phase.
- **Selection:** Approximately 48 students are selected from 80-100 applicants. Selection is based on academic performance and an exhibit of creative work. The creative exhibit is a display of work completed during the foundation studios as well as outside creative pieces.
- **Curriculum:** major areas are Design, Design Communication, History and Theory, Technologies, Practice/Management, and general education electives.

Dear Holly,

Thank you for your inquiry into the **Master of Architecture Program at the University of Arizona.** A brochure has been mailed to you. In the meantime, you are encouraged to explore the following sources of detailed, web-based information that will be helpful in your decision making process.

Two important notes:

1. Admission to the M.Arch program takes place in Fall and Spring. Deadline: February 1 for either Fall or Spring admission. Admission and financial aid decisions are communicated to applicants by early April. Financial aid allocations are made in April for the entire upcoming Fall-Spring academic year; therefore, the February 1 deadline applies to all applicants. Spring applicants who do not wish to be considered for financial aid may use the standard Spring application deadline of October 1.
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INFORMATION FOR PROSPECTIVE TRANSFER STUDENTS

Any student interested in transferring to The University of Arizona must have already earned at least 24 transferable credits at another institution. Students interested in Architecture must have at least a 3.0 GPA.

The Program

The College of Architecture and Landscape Architecture offers a 5-year, nationally accredited, professional undergraduate program leading to a Bachelor of Architecture (B.Arch).

There are two general points of entry into the Bachelor of Architecture program:

1. Pre-Professional Phase (Pre-Architecture) → year 1
2. Professional Phase → years 2 - 5

Transferring into the Pre-Professional Phase

Most students who transfer into the architecture program have completed general education coursework but do not have applicable architecture coursework. As a result, most students transfer into the first year (Pre-Architecture / Pre-Professional Phase) and are required to take the Foundation Studios (ARC 101 & 102). These students follow the full 5-year path and have to apply for admission to the Professional Phase after completion of the Foundation Studios. Please note, general education courses will be considered for transfer credit by The University of Arizona. A student may have advanced academic standing due to general education credits but students in this scenario would still need to complete the entire Architecture curriculum.

Transferring into the Professional Phase

A very few number of students come to us with enough applicable architecture coursework to transfer into the Professional Phase of the program. This would require that the completed coursework meets our accredited curriculum standards and that the applying student submit a portfolio for review. Admission to the Professional Phase is also dependent on there being a spot available in the appropriate cohort year that the student would be entering. Our studio student-to-faculty ratio is linked to the 48 student cohort size.

Students wishing to transfer into the Professional Phase (second year of the program) will need to have completed studios comparable to our Foundation Studios as well as the follow general education coursework:

- English Composition (2 semesters)
- College Algebra
- Trigonometry
- Physics (with a lab component)
- Foreign Language 101 and 102 (or exhibit second semester proficiency)

Students who wish to transfer into the Professional Phase should contact a college representative before submitting their portfolios:

Kenley Weaver Martin
Student Recruitment Coordinator
Kenley@arizona.edu
520.626.9935

James Siegel
Academic Advisor, Senior
Jss1@email.arizona.edu
520.626.7675

Susan Moody
Assistant Dean
skemoody@email.arizona.edu
520.621.6751

SCHOOL OF ARCHITECTURE PROSPECTIVE STUDENT PRESENTATION

College Structure

- College of Architecture & Landscape Architecture (CALA)
  - School of Architecture
    - Undergraduate: ranked 12th in the nation by *DesignIntelligence*
    - Graduate
  - School of Landscape Architecture and Planning
    - Two accredited graduate programs

NAAB

National Architectural Accrediting Board

The NAAB requires all accredited degree programs to display the following statement in its promotional materials:

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Master's degree programs may consist of a preprofessional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

What is Architecture?

Architecture is the built environment...

...and what architects do is design the environment.

What do architects do?

Who studies architecture?

Laren Sakota

Program Graduate, '09

"You want to know the real thing that got me going? Legos! Playing with them made me realize how much I wanted to design and build."

INTERNATIONAL EXCHANGES

Undergraduate students have a wealth of opportunities to spend a semester abroad, whether they select one of the School of Architecture's official exchange programs or select another program on their own. An exchange program differs from a study abroad experience mainly by being more structured. In addition, students participating in exchanges with official UA exchange partners pay their normal UA tuition and fees rather than those of the host university. Be sure to consult the UA Office of Study Abroad and Student Exchange (SASE) website for detailed information regarding available programs and application procedures.

Exchange Program Information: Outbound Students
Exchange Program Information: Inbound Students
List of Exchange Programs Currently Available
Study Abroad Programs
Financing Your Travels

Exchange Program Information: Outbound Students

Students are encouraged to enrich their architecture education by spending a spring semester abroad at one of our official exchange partner institutions. Undergraduates may apply for an exchange in the spring of their 4th year in the B.Arch program. Students enrolled in the 1.5 year M.Arch program are encouraged to complete all their coursework within this College. Students enrolled in the joint B.Arch/M.Arch program should discuss international education opportunities with an academic advisor or with Linda Erasmus (erasmus@email.arizona.edu).

Eligibility Requirements

- Semester away from UA must be spring of 4th year
- Minimum 3.0 GPA
- Three to four semesters of foreign language study. This requirement may be waived if the applicant can demonstrate an appropriate level of skill in the host country language; or it may be reduced if the language of instruction will be English. Students' international experience will be greatly enhanced by knowledge of the host country language, and preference will be given to those who show higher level preparation.
- Letter of recommendation from a faculty member
- An interview and letter of approval from exchange faculty advisor

Costs

Students pay the regular School of Architecture tuition and fees to the University, and are covered by their current scholarships during the spring and fall semesters. Summer programs are not covered by financial assistance awards; students should plan to pay the standard summer in-state fees for Architecture students. Consult the Bursar's Office website for complete details.

Insurance

The University of Arizona student health insurance may be suspended during your semester abroad, but students must acquire health insurance coverage that meets the requirements of the host institution. Check that institution's website for the availability of low cost student health insurance. To ensure continuous health insurance coverage, services of the International Travel Insurance Program are also available to students and faculty through The University of Arizona.

Transferability of Credit

To ensure that credits earned abroad are transferable to your record in the School of Architecture, please plan your academic schedule in consultation with Linda Erasmus. Download the Course Selection for Study Abroad form on the SASE website, and refer to the Upper/Lower Division Designation Chart when selecting your courses.

How to Apply

Foreign visa applications and other necessary paperwork may take several months to complete, so it is important to start the application process early.

1. Complete the application form available on the website of the UA Office of Study Abroad and Student Exchange (SASE). SASE staff will send you a packet of detailed information, forms, and instructions for applying to the institution you identify in your application.
2. Apply directly to the institution of your choice.

Application Deadlines

Submit your application to SASE according to the semester you plan to be abroad.

Spring 2010	Mid October 2009

Once you have received an application packet from SASE for your chosen exchange program, be sure to follow that program's deadlines. This information should be included in the application packet or on the host institution's website.

Summary of Steps to Participate in International Exchange Program

- Contact the SASE advisor assigned to the university you wish to visit, and find out whether exchange slots are available during the semester you plan to spend abroad. If not, consider going as a regular study abroad student. Check the section below for details.
- Explore the website of your chosen exchange program. Check application deadlines, curricula, courses available for enrollment, and resources for visiting students.
- Obtain a letter of recommendation from a faculty member.
- Make an appointment for an interview with the faculty advisor for your chosen exchange program.
- Upon receiving a letter of approval from the faculty advisor, submit the online application to SASE.
- Complete the Course Selection for Study Abroad form from the SASE website in consultation with Linda Erasmus (erasmus@email.arizona.edu).

Exchange Program Information: Inbound Students

Admission Requirements

MEDITERRANEAN SUMMER

Architecture in Italy

The School's summer program in the Mediterranean comprises five weeks of study based in the city of Orvieto, Italy, a fascinating city occupied continuously since Etruscan times. Side trips to Florence, Rome, Siena, Pompeii and other historic locations are also included in the program.

Curriculum

ARC 481e/581e: Architecture in the Mediterranean (3 credits)

In this course drawing, collage and watercolor are used to develop an understanding of architectural principles in the city and in buildings. The focus is on observation, description and analysis. This course fulfills the School of Architecture upper division design communications requirement.

ARC 497b/597b: Special Project in Architecture (3 credits)

This course employs the travel journal as a tool to investigate and record new cultural and architectural experiences. Students are challenged to integrate writing and images into a cohesive and meaningful document.

Director

Director and Professor Mary Hardin began teaching in the School of Architecture at the University of Texas at Austin in 1983, and also taught at Arizona State University before joining the University of Arizona faculty in 1997. She has led previous study abroad programs at Arizona State University, and has traveled extensively throughout Europe. She has been involved with the Mediterranean Summer Program since 2002.

DIGITAL FABRICATION

The Digital Lab is a dust-free facility containing one 3-D printer and two laser cutters. The Digital Lab contains its own computer workstation that supports Mastercam, Maya, Rhino, AutoCad, Solid Works, and FormZ applications.

The Lab's Dimension BST 3-D Printer uses acrylonitrile butadiene styrene (ABS) plastic to print solid objects up to 8" x 8" x 12" in size at extremely high resolution directly from 3D CAD files in *.stl format. The ABS models are built up in layers 0.01 in. to 0.013 in. thick. The resulting models are white, sturdy, and can be sanded, drilled etc. with typical hand and power tools. The 3-D printer features the patented Fused Deposition Modeling (FDM™) system that allows the manufacture of real production thermoplastic parts that are stable and have no appreciable warpage, shrinkage, or moisture absorption, like the products of other systems utilizing resins and powders. The FDM process does not employ dangerous materials and requires no special venting. FDM enables students to manufacture real parts in just three steps: loading a file, manufacturing a part and removing the support material.

The Digital Lab's two laser cutters are available for use during 90-minute time slots that must be scheduled a minimum of 24 hours in advance.

The Digital Lab is governed by its own set of policies, guidelines, and hours. Please check the CALA website for further information, including the current sign-up schedule and fees.

CALA LECTURE SERIES

The College's Lecture Series was established in 1999 to serve as a forum to amplify the common ground between the arts, humanities and sciences within the diverse constituencies of the College, the University and the community at large. It focuses on the views and recent work of respected architects, landscape architects and planners. The CALA Lectures offer an opportunity for our students to listen, learn and participate in dialogue with outstanding professionals practicing throughout the United States. Podcasts of recent CALA lectures may be streamed or downloaded from the UA presence on iTunes University.

David J. Lewis : Architect : Lewis.Tsurumaki.Lewis, New York, NY
March 6, 2009 5:00pm • AME 202

Allen Eskew : Architect : Eskew+ Dumez + Ripple, New Orleans, LA
March 30, 2009 5:00pm • Harvill 150

Bill Wenk : Landscape Architect : Wenk Associates, Planners + Landscape Architects, Denver, CO
April 10, 2009 5:00pm • AME 202

LECTURE SERIES ARCHIVE

Lecture Series (Jan. 1999 through April 2006)

Mark Wilson : Assoc. Director, School of Planning, Design and Construction, Michigan State University
March 2, 2009

William Menking : Editor : The Architect's Newspaper
February 25, 2009

John Peterson : Architect : Public Architecture, San Francisco, CA
February 13, 2009

Paul Dolinsky : Director : National Park Service, Historic American Landscapes Survey Program
February 9, 2009

Margaret Griffin : Architect : Griffin Enright Architects, Los Angeles, CA
January 23, 2009

Edward Allen : Architect and Educator
March 28, 2008

Victoria Ballard Bell : Architect : Ballard Bell Architecture, Raleigh, NC
February 8, 2008

Charles D. Knight and David Dimond : Perkins + Will, Minneapolis, MN
November 14, 2007

Jane Weinzapfel : Architect : Leers Weinzapfel Associates, Boston, MA
November 9, 2007

Jonathan Knowles : Architect : Briggs Knowles Architecture + Design, New York City, NY
October 22, 2007

Robert Harris : Architect : Lake | Flato Architects, San Antonio, TX
October 12, 2007

Cara Lee : Architect : lee + mundwiler architects, Santa Monica, CA
September 28, 2007

Suzanne Johnson : Film maker : Documentary film on Pedro Guerrero, architectural photographer
August 31, 2007

Topher Delaney : Artist and Landscape Designer : T. Delaney Inc./SEAM Studios, San Francisco, CA
April 13, 2007

Luis Ibarra : Ibarra-Rosano Design Architects, Tucson, AZ
April 4, 2007

Peter Testa : Architect : Testa & Weiser, Los Angeles, CA
March 21, 2007

Rob Paulus : Architect : Rob Paulus Architect, Tucson, AZ
February 28, 2007

Les Waltach : Architect : Line and Space, Tucson, AZ
January 24, 2007

Jennifer Luce : Architect : Luce et Studio, San Diego, CA
November 17, 2006

Ann Moss and Jerry Shapins : Designers : Shapins Associates, Boulder, CO
November 3, 2006

Odile Decq : Architect : ODBC, Paris, FR
October 20, 2006

Mike Houck : Urban Ecologist : Portland State University, Portland, OR
October 13, 2006

Leo Marmol : Architect : Marmol Radziner & Associates, Los Angeles, CA
September 29, 2006

Teddy Cruz : Architect : Estudio Teddy Cruz, San Diego, CA
September 22, 2006

THE UNIVERSITY OF ARIZONA

College of Architecture and Landscape Architecture

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School of Architecture
School of Landscape Architecture
Drachman Institute

Prospective Students
Current Students
Faculty & Staff
Alumni & Friends

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THE UNIVERSITY OF ARIZONA

CALA Events

Welcome to the CALA events page. Please use the calendar below to find events of interest to you. You may use the 'Prev' and 'Next' links to scroll between months or search a range of dates. Click on the title of the event to learn more. If you are looking for general University dates and deadlines, please use the University Calendar.

<< Prev		Mar 2009				Next >>
Su	Mo	Tu	We	Th	Fr	Sa
1	2 CALA Lecture: Mark Wilson	3	4	5	6 CALA Lecture: David Lewis	7
8	9	10	11 Frank Lloyd Wright Film	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30 CALA Lecture: Allen Eskew	31				

Are you interested in a certain type of event? Use our advanced search features below to find out what's happening.

Area of Interest

(Select One) Search

If you have a College-related event you want posted on the calendar, contact CALA webmaster Cynthia Bower (cebower@email.arizona.edu) with the information.