



THE UNIVERSITY OF ARIZONA
COLLEGE OF ARCHITECTURE, PLANNING
& LANDSCAPE ARCHITECTURE

School of Landscape
Architecture & Planning

Master of Landscape Architecture Program

2013-2018

Landscape Architectural Accreditation Board Self-Evaluation Report



Landscape Architectural Accreditation Board

American Society of Landscape Architects

636 Eye Street NW

Washington, DC 20001-3736

School of Landscape Architecture and Planning

College of Architecture, Planning and Landscape Architecture

1040 N Olive Rd

Tucson, Az 85721-0075

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Program Self-Evaluation Report

For the Academic Year	<u>2019</u>	Institution	<u>University of Arizona</u>
Program	<u>Master of Landscape Architecture Program</u>		
Degree Title/Degree Length	<u>Master of Landscape Architecture - 3 years</u>		
Chief Administrative Official of the Institution	<u>Robert C. Robbins</u> <i>name</i>	<u>President</u> <i>title</i>	
	<u>1200 E University Blvd, Tucson, AZ 85721</u> <i>address</i>		
	<u>president@email.arizona.edu</u> <i>e-mail address</i>	<u>(520) 621-9323</u> <i>phone number</i>	
Chief Administrative Official of the College	<u>Nancy Pollock-Ellwand</u> <i>name</i>	<u>Dean</u> <i>title</i>	
	<u>1040 N Olive Rd, Tucson, AZ 85721-0075</u> <i>address</i>		
	<u>pollockellwand@email.arizona.edu</u> <i>e-mail address</i>	<u>520-621-6751</u> <i>phone number</i>	
Chief Administrative Official of the Division (if applicable)	<u></u> <i>name</i>	<u></u> <i>title</i>	
	<u></u> <i>address</i>		
	<u></u> <i>e-mail address</i>	<u></u> <i>phone number</i>	
Chief Administrative Official of the Department	<u>Lauri Macmillan Johnson</u> <i>name</i>	<u>Director and Professor</u> <i>title</i>	
	<u>1040 N Olive Rd, Tucson, AZ 85721-0075</u> <i>address</i>		
	<u>ljohnson@email.arizona.edu</u> <i>e-mail address</i>	<u>520-626-1004</u> <i>phone number</i>	
Chief Administrative Official of the Program	<u>Lauri Macmillan Johnson</u> <i>name</i>	<u>Director and Professor</u> <i>title</i>	
	<u>1040 N Olive Rd, Tucson, AZ 85721-0075</u> <i>address</i>		
	<u>ljohnson@email.arizona.edu</u> <i>e-mail address</i>	<u>520-626-1004</u> <i>phone number</i>	
Report Submitted by	<u>Lauri Macmillan Johnson</u> <i>name</i>	<u>December 12, 2018</u> <i>date</i>	

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Minimum Requirements for Achieving and Maintaining Accredited Status

1. The program title and degree description incorporate the term "Landscape Architecture".
2. An undergraduate first-professional program is a baccalaureate of at least four academic years' duration.
3. A graduate first-professional program is a master's equivalent to at least three academic years' duration.
4. Faculty instructional full-time equivalence (FTE) shall be as follows:
 - a. An academic unit that offers a single first-professional degree program at the emerging or Initial Accreditation status has at least three FTE instructional faculty who hold professional degrees in landscape architecture, at least one of whom is full-time.
 - b. An academic unit that offers a first-professional degree program at both the bachelor's and master's levels at the emerging or Initial Accreditation status has at least six FTE instructional faculty, five of whom hold professional degrees in landscape architecture, at least two of whom are full-time.
 - c. An academic unit that offers a single first-professional degree program at the continuing full Accreditation status has an FTE of at least five instructional faculty. At least four of these faculty members hold a professional degree in landscape architecture and at least three of them are full-time.
 - d. An academic unit that offers first-professional degree programs at both the bachelor's and master's levels with continuing full Accreditation status has an FTE of at least seven instructional faculty, at least five of whom hold professional degrees in landscape architecture and are full-time.
5. The parent institution is accredited by a recognized institutional accrediting agency.
6. There is a designated program administrator responsible for the leadership and management functions for the program under review.
7. The program provides a comprehensive public information disclosure about the program's status and performance within a single click link from the program's internet website homepage.
8. A program accredited by LAAB shall:
 - a. Continuously comply with accreditation standards;
 - b. Pay the annual sustaining and other fees as required; and
 - c. Regularly file complete annual and other requested reports.

The program administrator shall inform LAAB if any of these factors fails to apply during an accreditation period.

The University of Arizona Master of Landscape Architecture Program meets the minimum conditions to apply for LAAB accreditation.

Lauri Macmillan Johnson
Program Administrator Name

Director and Professor
Title


Program Administrator Signature

December 12, 2018
Date

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Introduction

1. HISTORY OF PROGRAM

A detailed history of the Landscape Architecture Program from 1891 through 2018 can be found in Addendum X.1.¹

The Landscape Architecture Program can trace its roots back to the 1960s. The University of Arizona opened its doors in 1891 and the first landscape architecture major was created in the Department of Horticulture in 1966. The Bachelor of Science degree with a major in Landscape Architecture was first listed in the 1967 university catalog. The Master of Science with a major in Landscape Architecture was listed in 1969. The four-year Bachelor of Science in Landscape Architecture received accreditation in 1973 and the Bachelor of Landscape Architecture (BLA) and Master of Landscape Architecture (MLA) degrees were approved by the Arizona Board of Regents in 1974, replacing the BS and MS degrees in Landscape Architecture. The five-year BLA degree was implemented in 1976 and a three-year MLA Program was implemented in 1984. The five-year BLA degree became a four-year degree in 1985 and returned to a five-year degree in 1991. The BLA Program was phased out beginning in 1993, leaving the MLA Program, which has been continuously accredited since its inception.

The Master of Landscape Architecture degree is currently a three-year program within the School of Landscape Architecture and Planning, which is within the College of Architecture, Planning, and Landscape Architecture (CAPLA). Lauri Macmillan Johnson has directed the program since 2010.

While faculty, directors, and deans have come and gone throughout the history of the program, most recent notable changes include the retirements of Professors Ronald R. Stoltz, Mark Frederickson, and Senior Lecturer Oscar Blasquez (2015); the hiring of Assistant Professors Kirk Dimond and Kelly Cederberg (2015), Associate Professors Bo Yang and Shujuan Li (2017), Assistant Lecturer Gina Chorover (2016), and Adjunct Lecturers Helen Walthier (2015), Jennifer Patton, Charles Anderson (2015) and Travis Mueller (2016). Assistant Professor Philip Stoker was hired with a joint appointment in planning and landscape architecture in January 2016; his appointment currently resides in planning but he is affiliated with the MLA program. In 2017, Lecturer Eduardo Guerrero was hired in the School of Architecture as faculty who supports integrated studies.

At the administrative college level, Dean Janice Cervelli left CAPLA to become President of St. Mary's College in 2016. Professor Mary Hardin become the interim dean during the academic year 2016-17, and Dean Nancy Pollock-Ellwand was hired as the new CAPLA dean in 2017.

2. ORGANIZATIONAL STRUCTURE OF THE PROGRAM.

The College of Architecture, Planning and Landscape Architecture has two schools within it: the School of Architecture and the School of Landscape Architecture and Planning. The MLA program is situated within the School of Landscape Architecture and Planning. In addition, the Master of Science in Planning, the Master of Real Estate Development, the Bachelor of Science in the Sustainable Built Environments, and the Heritage Conservation Graduate Certificate Program are located within the school. See the college organizational chart, Figure A.

¹ All LAAB required addenda are numbered A.1-F.1 as requested. Additional program-specific addenda are numbered X.1-X.21.

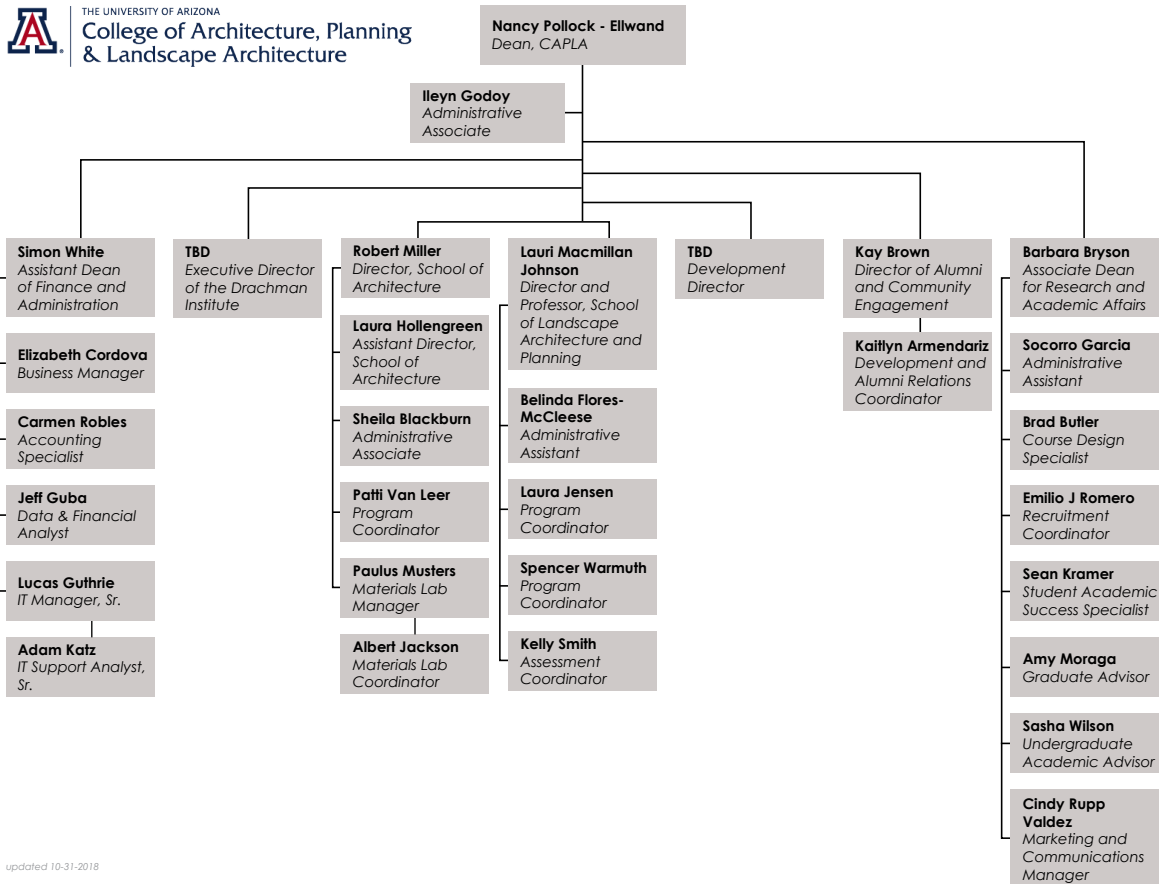


Figure A. CAPLA Organizational Chart

3. RESPONSE TO PREVIOUS LAAB REVIEW.

The 2013 accreditation letter does not provide recommendations or suggestions for the program. To quote the letter, “Typically LAAB develops a list of recommendations affecting accreditation and suggestions for improvement for programs to address. The LAAB is pleased to note that no recommendations or suggestions resulted from this review.” See Addendum X.2 for a copy of the previous LAAB review letter.

4. DESCRIBE CURRENT STRENGTHS AND OPPORTUNITIES.

The Landscape Architecture Program is steeped in applied learning and professional practice, sustainable design practices and interdisciplinary partnerships. The place-based curriculum takes advantage of the Sonoran Desert to demonstrate sustainable design practice such as water management practices, use of native plant species, ecological stewardship, and urban heat island mitigation. We have identified the following strengths and opportunities in our program:

- An emphasis on professional practice.
- An emphasis on sustainable design.
- Our unique location in the Sonoran Desert.
- Our position within a Research I and Land-Grant university.
- High quality faculty, staff, and students who are engaged in the community.
- Excellent facilities.

- An emphasis on interdisciplinarity within CAPLA.
- Opportunities to work with other units in CAPLA and on campus.
- Opportunities for our students to earn dual degrees and certificate programs within CAPLA.
- Opportunities for community outreach.
- Opportunities for international engagement.

Professional Practice Emphasis

Our primary mission is to prepare students for the practice of landscape architecture and engage them in applied scholarship with an emphasis on sustainable design strategies. We employ real-world learning experiences that enable students to meet the challenges of the 21st century. Our commitment to student-centered learning and practice-based education focuses design decision-making with methods centered on the creation and management of sustainable built environments. We take pride in our collegial studio approach toward the integration of scholarship and community outreach with teaching.

We prepare students for entry-level practice by involving them in a variety of project types and scales including community and campus master plans; urban park systems, plazas and green streets; industrial restoration; habitat creation; neighborhood design; and more.



Students in LAR 555 participate in a design charrette.

Studio courses balance theoretical exercises with real-world community outreach to create diverse learning environments that maximize professional skill building with applied research. Faculty members secure outside funding and professional service contracts which demonstrate collectively their ability to conduct applied and interactive community engagement within the classroom setting. In these projects, faculty members prepare students for professional practice and interdisciplinary collaboration with goals centered on advancing the profession of landscape architecture. Students address site and landscape planning issues and explore the ways that designed landscapes can educate and inspire communities toward environmental health and cultural identity.

Students learn to work collaboratively within multi-disciplinary working environments. They receive experience in site planning and landscape planning within the scope of a variety of project scales and diverse programs. They practice and demonstrate applied knowledge in:

- History, Theory, and Criticism
- Design and Design Methods
- Sustainable Design Strategies and Natural Processes
- Socio-Cultural Factors in Design
- Design Implementation
- Professional Communication, Documentation, and Technology
- Professional Practice
- Research and Scholarly Methods

Our students compete well in the national job market because of their proficiencies in these areas as well as their knowledge in professional practice, plant materials, design, and scholarship as applied to practice. We believe our students develop comprehensive design skills that advance the practice and profession of landscape architecture.

Students learn both hand drawing techniques and digital media for design development and final graphic presentation. Students in *Design Studio I* (LAR 510) are introduced to the Adobe Creative Suite (Photoshop, InDesign, Illustrator), AutoCAD, and Google Sketch-Up. In each successive design studio, students develop a higher level of expertise in the application of design software. An elective available to students who wish additional training is *Digital Media* (LAR 530). Landscape architecture students take two courses which provide extensive training on the use of geospatial software: *Introduction to Geographic Information Systems* (LAR 570) and *Landscape Planning Studio* (LAR 623). Students apply their knowledge of GIS, CAD, Adobe Creative Suite programs and Sketchup throughout their tenure in the program in each of the design studio classes.

Students hone their professional practice and interview skills through two annual events, *Shadow Day*, organized by the student American Society of Landscape Architects (ASLA) chapter, and the *CAPLA Career Fair*, where students have an opportunity to practice their interview and job search skills. We also encourage MLA students to attend annual meetings of the ASLA as well as conferences of the Council of Educators in Landscape Architecture (CELA). The school offers partial financial support to cover conference registration and travel costs for participating students. Past students have presented posters and papers at CELA.

Sustainable Design for Arid Environments

The MLA Program exemplifies the spirit of the land-grant mission that has characterized The University of Arizona since its founding. This professional degree program reflects the practical land stewardship values that led to the establishment of the profession in 1899. Our program provides education, research, and outreach on the systematic organization of public and private outdoor places for human and environmental health, social well-being, preservation of cultural heritage, and visual beauty. Our vision is to advance sustainable design in arid environments for global application. Our curriculum and applied learning opportunities focus on sustainable strategies and natural processes including:

- Resource Conservation
- Stormwater Management
- Urban Heat Island Mitigation
- Urban Flooding Mitigation
- Plant and Ecosystem Science and Design
- Land Stewardship
- Visual and Scenic Assessment

- Landscape Performance Assessment

Our faculty research and courses are centered on best practices that emphasize design of whole functioning systems for human and ecological health. We prepare students for practice by providing opportunities to participate in the development of emerging ideas. We promote inclusive site development and decision-making processes to achieve the goals of environmental, social, and economic sustainability.

Location in Tucson, the Sonoran Desert, and the Southwest

The MLA Program at The University of Arizona believes that the rich cultural heritage and physical setting of the Sonoran Desert and Southwest provide an invaluable resource and opportunity for the study and practice of landscape architecture.

The pressure of rapid population growth and a changing climate present significant challenges for the profession and for MLA graduates. We seek to advance and promote the conservation and stewardship of human, intellectual, cultural, financial, and environmental resources within our region. We use this laboratory to enhance our well-established belief in the benefits of place-based learning where connections can be made between desert ecology and our diverse cultural heritage toward appropriate and sustainable design.



Saguaro National Park, Tucson, AZ. *Photo - Bob Wick*

Location at the UA: a Research I and Land-Grant University

The University of Arizona is a public Research I university and belongs to the prestigious Association of American Universities. The location of the School of Landscape Architecture and Planning at The University of Arizona is an ideal setting that engages our intellectual community in significant shared teaching, research, and outreach opportunities that serve the state of Arizona and its diverse population.



The University of Arizona. Photo - UA Alumni Association

As part of the land-grant institution in Arizona, the MLA Program offers significant outreach and service opportunities to students throughout all three years of the curriculum including the thesis and master's report processes. Approximately 60-80% of all studio projects engage with and benefit the community, public agencies, and nonprofit clients.

High Quality Faculty

The Landscape Architecture Program has six full-time faculty members including the director who also serves as professor of landscape architecture, one full-time faculty member who shares an appointment with planning, and two adjunct lecturers. Additionally, one assistant lecturer and one adjunct lecturer teach undergraduate landscape architecture general education courses which introduce students to the discipline, while also potentially recruiting students into the MLA Program. The program has built a strong, committed, and energetic faculty who seamlessly integrate teaching, research, and outreach. Several of our faculty have received awards over the accreditation period, including Ron Stolz 2013 *Fellow* (ASLA); Director Lauri Macmillan Johnson 2014 *Educator of the Year Award* (AzASLA), 2017 *CELA Fellow*; Margaret Livingston 2013 *Educator of the Year Award* (AzASLA), the 2014 *Darryl B. Dobras Award for Excellence* (CAPLA), and the 2018 *Excellence in Teaching Award, Senior Level* (CELA); Bo Yang 2018 *President's Award* (CELA); and Kirk Dimond 2018 *Educator of the Year Award* (AzASLA). The faculty have diverse talents and are thus able to provide excellent coverage of the curriculum. For a complete description of faculty qualifications, see Standard 5 and Addendum E.5. Details on faculty outreach projects can be found in Standard 6.



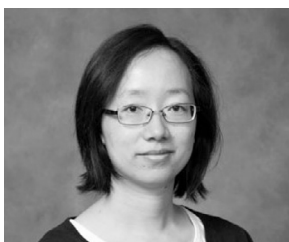
Lauri Macmillan Johnson, MLA, FCELA, ASLA, APA, Professor and Director of the School of Landscape Architecture and Planning at the University of Arizona, Lauri Macmillan Johnson currently leads five academic programs: Landscape Architecture, Urban Planning, Real Estate Development, Sustainable Built Environments, and Heritage Conservation. She is a nationally recognized scholar of design theories in history and contemporary landscape architecture, cultural landscapes, and children's environments. Her work has been published by the University of Texas Press, Fitzroy Dearborn, Landscape and Urban Planning, Journal of the Southwest, Children's Environments Quarterly, Proceedings of the Council of Educators in Landscape Architecture (CELA) and the American Society of Landscape Architects. She has won several design competitions, including the constructed entry entitled *Garden of Abandonment* for Chaumont-sur-loire's *International Festival of Gardens* held in France.



Margaret Livingston, PhD, Professor, Landscape Architecture. Margaret teaches a range of courses related to ecological and environmental issues in arid environments and has locally and internationally conducted lectures and workshops that focus on water conservation, wildlife habitat, and use of native plants in urban areas. As an urban ecologist, her work emphasizes the importance of evaluating and maintaining natural and semi-natural ecosystems within and surrounding urban areas. In her role as a designer, Margaret focuses on the use of native plants and design of urban wildlife spaces. Margaret has received numerous teaching awards including the 2018 CELA Excellence in Teaching Award, Senior Level.



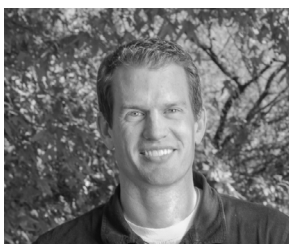
Bo Yang, PhD, Associate Professor, Landscape Architecture. Bo's professional experience includes multidisciplinary work in China and the United States. His areas of interest are green infrastructure design and low-impact development, landscape performance assessment, environmental planning and technology, and landscape history and theory in China and East Asia. Bo currently serves as the CELA Vice President for Research & Creative Scholarship (2016-18), and as Assistant Editor of Landscape Research (Taylor & Francis). Bo was recently awarded the 2018 CELA President's Award.



Shujuan Li, PhD, Associate Professor, Landscape Architecture and Planning. Shujuan's research interests include the integration of spatial analysis and modeling with GIS for urban and environmental studies, geodesign, landscape ecology, and land-use dynamics and planning. She teaches several courses related to geodesign and environmental land use planning and spatial analysis.



Kelly Cederberg, MLA, Assistant Professor, Landscape Architecture. Kelly's research interests involve design retrofits in urban environments that enhance watershed health. Currently, her primary focus is on strategies for the redesign and purposing of golf courses in order to conserve water, enhance wildlife habitat and provide amenities that promote health and community.



Kirk Dimond, MSLA, Assistant Professor, Landscape Architecture. Kirk's research interests involve resilient and productive landscapes with a focus on solar energy, that consider and combine multiple systems to achieve more responsible and sustainable results. He incorporates landscape performance metrics into his teaching, and recently received an equipment grant for environmental modeling and conditions monitoring. Kirk received the 2018 Educator of the Year award from the Arizona chapter of the ASLA.



Philip Stoker, PhD, Assistant Professor, Landscape Architecture and Planning. Philip has expertise in urban water demand and the integration of land use planning with water management. His research on urban water demand focuses on how land cover, built environmental characteristics, social conditions, and demographics all interact to influence water use in Western U.S. cities.



Travis Mueller, MLA, Adjunct Lecturer, Landscape Architecture. Travis focuses on the aesthetics and details of design, the design process, and urban design in his teaching of Studio I and Digital Media. Travis works as an independent landscape designer with several landscape architecture firms including Ten Eyck Landscape Architects.

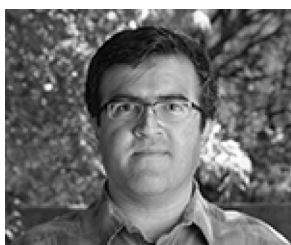


Helen Walthier, MLA, JD, Adjunct Lecturer, Landscape Architecture. Helen has professional experience creating environmentally sensitive landscape solutions which are contextually appropriate, elegant, functional and inviting within budgetary and regulatory constraints. She shares her expertise with students through studio and professional practice classes.

Support Faculty



Gina Chorover, MLA, MS, AICP, Assistant Lecturer and Program Coordinator. Gina teaches undergraduate and graduate courses in landscape architecture, planning, and heritage conservation, and coordinates the Heritage Conservation Graduate Certificate. She also coordinates the school's lecture series and works on special projects including the LAAB and PAB reports.



Eduardo Guerrero, MUD, Assistant Lecturer, is an architect and urban designer whose work has included neighborhood revitalization efforts in Chile and urban design projects in California. He is drawn to problems that engage architecture, urban design, climate, and culture, and is especially interested in the seen and unseen edges that define boundaries between urban, rural, agricultural, industrial, natural and social settings. Eduardo has co-taught in the integrated design studio LAR 611 as well as design competitions that are open to all upper division undergraduate students and graduate students.

High Quality Staff

The Landscape Architecture program has highly qualified support staff that includes a full-time administrative assistant, a full-time program coordinator, a part-time assessment coordinator, and a part-time student worker.



Belinda Flores-McCleese, Administrative Assistant. Belinda provides administrative support to the director as well as faculty, and coordinates course management and other activities for the school.



Laura Jensen, MLA, Program Coordinator. Laura provides graphic and writing support to the Landscape Architecture and MS Planning programs in addition to coordinating marketing, social media and the school's website. She is also charged with overseeing production of large reports such as LAAB.



Kelly Smith, PhD, Assessment Coordinator. Kelly coordinates all assessment activities for the school including alumni and student surveys, demographic analyses, periodic accreditation reviews, and annual reporting to the university and accreditation bodies.

High Quality, Engaged Students

We recruit excellent, high performing graduate students from diverse academic backgrounds in architecture, environmental science, art, communications, planning, political science, music, and many other disciplines. Students productively participate with faculty in research projects and outreach contracts as well as in service learning projects used for design studios. See Addenda C.1-D.2 for more information on our students.

Our students have a history of being highly engaged in the community. Students are active in the ASLA student chapter and the events sponsored by the Southern Section of the Arizona ASLA (AzASLA) such as the *Arizona Nursery Tour*. Many students attend the bi-monthly AzASLA Southern Section luncheons where professionals present on projects. The AzASLA annual Gala and Awards ceremony is well attended by MLA students, and every year our students volunteer to assist with set up and take-down of the event. The ASLA student chapter sponsors an annual Books and Brews event to connect professionals and students. The student chapter also led the effort to write a successful proposal to the UA Green Fund to purchase a drone for the program. Student ASLA members teach others on how to fly the drone and manage its maintenance. The student ASLA chapter participates annually in *PARK(ing) Day*, most recently in partnership with the Living Streets Alliance and Norris Design. The chapter also volunteers each year to work with a landscape architect on the *Regional Science Olympiad*. The chapter organizes an annual *Shadow Day* event which connect students with landscape architecture firms in Phoenix and Tucson. Finally, the student chapter has partnered with Vectorworks for a pilot tutorial series geared toward teaching students about the software. See Standard 4 for more details on student engagement and achievement.

In 2011, students formed and funded an outreach group called the *3rd Floor Studio*, overseen by a faculty advisor, in order to harness their interest in completing design projects for communities in need. Projects completed over the past few years have included:

- Freedom by Design project to create an ADA accessible residential backyard
- Plan and community meetings for Buffalo Soldiers Memorial in Tucson
- Concept plan and drawings for improvements of Tumamoc Hill, historic site in Tucson

The high quality of our students is reflected in the number of student awards received each year. Students have participated in several competitions including the Bank of America Merrill Lynch

Low-Income Housing Challenge and the EPA Campus RainWorks Challenge design competition, for which they have received awards and other recognition.

MLA students received a number of state and national awards each year from 2013-18 including:

- 11 ASLA Honor Award winners
- 13 ASLA Merit Award winners
- 13 AzASLA Student Collaborative Design Award winners
- 12 AzASLA Student Community Service Award winners
- 1 AzASLA Honor Award, Student Individual winner
- 35 Sigma Lambda Alpha Honor Society inductees
- 6 Landscape Architecture Foundation Olmsted Scholars

For a complete list of student awards see Addendum X.3.

Excellent Facilities

The MLA Program, together with other units of CAPLA, is housed in two buildings: CAPLA West and CAPLA East (see photo below). CAPLA West building was constructed in 1965 with expansions in 1970 and 1979. This three-story structure includes the 2,800 square foot Sundt Gallery which provides multi-functional space for conferences, exhibitions, events, and studio critiques. Also in CAPLA West are administrative and faculty offices, two conference rooms, the Student and Alumni Center, computer laboratories, classrooms, and student architectural studios. Additionally, there is a 90-seat lecture hall that is equipped with audio/visual digital media capabilities, including large screen computer projection and laptop connection at every seat. As part of our ongoing commitment to diversity and inclusion, the third-floor West building houses a gender-neutral bathroom.



CAPLA East and West buildings. Photo - Robert Reck

The \$9.3 million building expansion to create the CAPLA East building in 2001 features a 9,000 square-foot state-of-the-art materials lab with material testing, assembly, and digital fabrication that facilitates design/build courses and research in material science. This is one of the largest architectural materials labs in the nation. Included in CAPLA East are large, bright studio spaces for graduate students in Landscape Architecture, Planning and Architecture as well as administrative offices for the School of Landscape Architecture and Planning and the School of Architecture.

The development of an addition to the CAPLA building afforded the opportunity to design and construct a demonstration landscape that is a high-performance integration of the building and site. This award-winning sustainable design lab, the Underwood Family Sonoran Landscape Laboratory, serves as an active research facility featuring the five biomes of the Sonoran Desert as well as active and passive water collection and harvesting systems. The project employs arid land sustainable design principles of water harvesting, water re-use, mitigation of desert microclimates, and reduction and re-direction of runoff while creating an interpretative desert oasis. At the center of the space is a sunken gathering area that serves as an outdoor classroom and gathering space for critiques, poster presentations and other events, while functioning as an additional water catchment and infiltration basin during a significant rainfall. See Standard 7 for complete details on facilities.

Interdisciplinarity within CAPLA

The MLA Program is situated in the School of Landscape Architecture and Planning within CAPLA. The academic units within the school have autonomy with respect to program missions and goals, curricular issues, faculty meetings, faculty reviews, and budgets. There are, however, opportunities for these programs to interact and collaborate on common areas of interest including site planning, urban design, landscape planning, and geospatial technologies and analysis. *Design Studio I* (LAR 510) and *Design Studio IV* (LAR 611) are courses, for example, in which landscape architecture students work together with planning students to learn and apply design concepts, and to work independently and in groups on landscape architectural and urban design projects. Additionally, *Introduction to GIS* (LAR 570), and the *Landscape Planning Studio* (LAR 623) include both landscape architecture and planning graduate students. Some students enroll in a dual degree program and earn an MLA degree and an MS Planning degree concurrently. Students take elective courses throughout the college and the university in programs such as Public Health, Natural Resources, Water Resources, Plant Sciences, and Geographic Information Systems.

Other areas of student integration in landscape architecture, planning, and architecture include student competitions. Students have participated in international teams for the ULI Hines competition on interdisciplinary teams, Beyond the Centerline: Reinventing New York City's Park Avenue Medians in a Design competition, and the EPA Campus RainWorks Challenge design competition.

More Opportunities: Institutes, Degrees, Dual Degrees and Certificate Programs within the College

- *The Drachman Institute* provides opportunities for the integration of academic programs. The Institute is the research-based outreach arm of CAPLA dedicated to sustainable design and planning with a focus on communities in need throughout Arizona and the Greater Southwest. The Institute engages students, staff, faculty, and citizens as an interdisciplinary collaborative striving to make communities healthier, safer, more equitable as well as beautiful places to live. Several students find employment and research opportunities with

the Drachman Institute.

As part of a re-visioning and College-wide strategic planning effort the Drachman Institute was placed on temporary hiatus (2016-18) as a college-wide strategic planning effort was conducted in order to determine and prioritize strategic investment strategies. In 2019 the Institute will be reactivated with college strategic investment funding. A position for institute director has been approved by the dean and provost and it is expected that this hire will be secured in spring 2019.

- *The Institute for Place and Wellbeing (UAIPW)* seeks to redefine human health to fully encompass the role of the built and green environment in health and wellbeing through research, education, practice, and policy change. An interdisciplinary institute at the University of Arizona (UA), the UAIPW links expertise of the UA College of Medicine — Tucson, the Arizona Center for Integrative Medicine (AzCIM), and CAPLA, actualizing the university's commitment to a vision of human health that fully encompasses the role of the built and natural environment in health, wellbeing, and healing. Through cutting edge research, the UAIPW is taking person-centered health to the next frontier—"Person and Place-Centered Health and Wellbeing." The institute is led by Dr. Esther Sternberg, who joined the university in the fall of 2012 as Director of Research for the Arizona Center for Integrative Medicine.
- *Bachelor of Science in Sustainable Built Environments (SBE)* was approved by the Arizona Board of Regents as a new undergraduate degree for the college in 2012. This 4-year interdisciplinary degree focuses on solutions to design, planning, construction, and management of sustainable built environments. The SBE Program is the first degree of its kind offered in the Western United States. A formal Accelerated Master's Program degree (AMP) was approved for the SBE to MLA program which allows students to reduce their overall time to complete both degrees by one year.
- *Bachelor of Architecture (BArch)*. The professional architecture program is a five-year program that culminates in the accredited Bachelor of Architecture degree. The professional program is balanced with general education courses and allows students to pursue a minor in another discipline.
- *Master of Real Estate Development (MRED)* prepares post-baccalaureate students from diverse fields to develop economically, socially, and physically sustainable strategies for development in cities. The program, which launched in 2013, combines coursework from architecture, landscape architecture, and urban planning with real estate finance, analysis, and law to enable students to advance their education and enter the profession of real estate development. The degree now includes a series of three separate graduate certificates which can be taken individually or combined, with the addition of a 3-credit capstone course, to earn the full Master of Real Estate Development degree.
- *Master of Science in Planning (MS Planning)* is an accredited professional degree program with an emphasis in sustainable city and regional planning. The program provides a diverse and multidisciplinary learning experience that prepares students for the challenges that face society and the environment through: creative plan making; environmental and physical planning; fostering cultural awareness; research, exploration, and innovation. The program emphasizes systematic and creative ways to advance city and regional planning within the

context of real-world applications.

- *Master of Science in Architecture (MS Arch)* is a post-graduate degree devoted to applied research in the built environment. With a flexible curriculum of approximately three semesters, the degree currently has six concentration areas: Design and Energy Conservation, Heritage Conservation, Emerging Building Technologies, Urban Design, Health and Built Environment, and Independent Research Option. The first semester includes a common foundation in research methods, after which the curricula vary by specialization.
- *Master of Architecture (M Arch)* is an accredited professional degree with an emphasis on critical practice and sustainable design honed by the poetics of place. The program fosters the development of an architect who is both a scholar and a maker: the integration of passive and active building technologies, theory/history, digital fabrication, design communications, materials and fabrication, and practice methods. This rigorous and comprehensive curriculum provides graduates with the necessary skills to enter a diverse range of leadership positions in the field of architecture, design, and construction.
- *Heritage Conservation Graduate Certificate* is a post-baccalaureate degree that can be taken by degree-seeking graduate students in Landscape Architecture, Planning, Architecture, Anthropology or allied disciplines or may be taken as a stand-alone certificate. Students are required to complete 18 units including an internship. An average of one to two MLA students are enrolled in the Heritage Conservation Certificate each year. The program educates students in the preservation of the built environment as part of a comprehensive ethic of environmental, cultural, and economic sustainability. The outcome of the graduate certificate is intended to balance theory with practice, as well as research and outreach. The program emphasizes interdisciplinary, inter-institutional, and international understandings of heritage conservation.
- *Affiliated PhD Programs* are offered in collaboration with the Graduate College and the College of Education. These include the Doctor of Philosophy with a major in *Arid Lands Resource Sciences* and the PhD in *Teaching and Teacher Education*.
- *Dual degrees* offered with the MLA include an MLA/MS Planning degree and an MLA/MS Architecture degree. In addition, interdisciplinary certificate programs such as Heritage Conservation, Geographic Information Systems, Real Estate Development, and Water Policy are occasionally pursued by MLA students. University institutes, such as the Institute for the Environment, provide opportunities for landscape architecture students to interact with students and faculty in other disciplines.

University and Community Engagement

Part of the University of Arizona's strategic plan is a commitment to 100% engagement. The MLA Program has been successful in building interdisciplinary relationships with academic departments, centers, and institutes across the campus as well as community groups, public agencies, and private corporations around important topics of urban revitalization, landscape performance, water and habitat conservation, cultural heritage, landscape interpretation, visual quality, outdoor learning, transit, and health and well-being.

Faculty and students have engaged with other UA units including: *Institute of the Environment*, the *College of Science*, the *School of Natural Resources and the Environment*, *Department of Soil, Water,*

and Environmental Science, the College of Education, College of Social and Behavioral Sciences, Eller College of Management, College of Public Health, the Herbarium, Arizona History Museum, the Udall Center, and the Water Resource Research Center to name a few. Faculty members have collaborated with other universities including University of Texas-Austin, University of Hawaii, Michigan State University, University of Utah, University of Washington, National Taipei University (Taiwan), Guizhou Normal University (China), and Jilin Jianzhu University (China).

Public sector collaborations have included the Town of Marana, the City of Tucson, the City of South Tucson, City of Nogales, Pima County, Davis Monthan Air Force Base, National Park Service, and US Forest Service. Private sector partnerships have included Rain Bird and McGann & Associates, Ten Eyck Landscape Architects, and Wheat Design Group. Collaboration with nonprofit organizations include Valley of the Moon (Tucson, AZ), Living Streets Alliance (Tucson, AZ), Church of Latter Day Saints (Utah), Grant Road Coalition (Tucson, AZ), Himmel Park Library (Tucson, AZ), Rillito Bend Neighborhood Streetscape Design (Tucson, AZ), Iron Horse Neighborhood Association (Tucson, AZ), Rio Rico Parks Masterplanning (Santa Cruz County), Silvercroft Neighborhood Association (Tucson, AZ), Sky Islands High School (Tucson, AZ), and Watershed Management Group (Tucson, AZ).

The School of Landscape Architecture and Planning's Lecture Series affords an additional opportunity for students and faculty to interact and learn from experts outside their chosen field. Visiting lecturers in 2017-18 have included Ryan Gravel (urban designer and planner, Atlanta Beltline), Gil Penalosa (world renowned urbanist), Phillip Berke (expert in urban mitigation and resiliency), Avis Devine (sustainable real estate development), Jim Richards (new urbanism and creativity), Larry Weaner (garden design and music composition), John Suarez (ecology and master planning), Nancy Pollock-Ellwand (cultural landscapes), Paul Coseo (urban climate design), Beverley Spears (early churches of Mexico), and Rodney Swink (downtown and neighborhood revitalization). For a list of visiting lecturers since 2013, see Addendum E.4.

International Engagement

Faculty have engaged in international programs, research partnerships and service projects with Tecnológico de Monterrey, Mexico; Center for Urban Design in Cold Region at Jilin Jianzhu University, Jilin, China; Changchun City Planning Bureau, China; The People's Government of Jilin Province, China; Jilin Jianzhu University; South China Agricultural University in Guangzhou, China; Huazhong University of Science & Technology, in Wuhan, China; Wuhan University in Wuhan, China; Shennongjia National Park, Dajiu Lake Scenic Area, China; and National Taipei University, Taiwan.

All CAPLA students have an opportunity to participate in study abroad programs. Recent study abroad programs organized by the College include South Africa and Orvieto, Italy (2019); Chile, and Spain/Portugal (2018); Scandinavia and Orvieto, Italy (2017); Japan and Orvieto, Italy (2016); Scandinavia and Orvieto, Italy (2015); Prague (2015); and Hong Kong and Orvieto, Italy (2013).

5. DESCRIBE CURRENT WEAKNESSES AND CHALLENGES.

We have identified the following challenges for our program:

- The university's budgeting model which is not conducive to small programs such as ours.
- Recruiting challenges.
- Facility/space constraints.

University Budgeting Model:

In 2010, the university introduced an incentive program called Responsibility Centered Management (RCM). Colleges and schools could gain tuition revenue through undergraduate and graduate courses and majors who are enrolled in programs. The university suspended this program as they determined that the overall business plan was flawed. With changes to the plan the university revised and launched RCM2 in 2015 which ties college, department, and program budgets to strategic planning and decision making. A “snapshot” of program enrollments was taken in 2015 and a base level allocation of resources was determined from these enrollments. Programs must continue to grow their enrollments to meet increased operating expenses. This presents a challenge for small studio-based programs such as the MLA Program as it is expected that enrollments will grow at 3 percent each year. Enrollments in the MLA Program fluctuate based on societal changes; many of which are outside of our control. Additionally, studio classes benefit from lower student teacher ratios and are limited in their ability to grow, but since the RCM2 system is better suited to larger undergraduate programs our undergraduate general education classes do present opportunities to increase enrollments. RCM2 is currently under its three-year review by the university.

Recruiting

In addition to internal resource allocation challenges, the Arizona legislature has cut funding for higher education over the years. As a result of these budget cuts, tuition at Arizona universities has risen. Academic programs in Arizona face the challenge of attracting students at a time when the cost of higher education is at its highest level ever. While the Landscape Architecture Program provides an excellent level of financial assistance to almost all incoming MLA students, many prospective students are still concerned about the cost of the degree.

The number of applications to all CAPLA graduate programs has been down the past few years. Possible reasons for this include a stronger economy which encourages prospective graduate students to stay in the labor force, and the recent travel and immigration bans and surrounding rhetoric which has decreased applications from foreign students to US colleges and universities as a whole. The aforementioned items have led to recruitment challenges. For a small program such as ours, it is difficult to allocate time and resources for student recruitment, and the school shares our primary recruiter and graduate advisor, Amy Moraga, with the college.

However, increased recruitment support in the form of increased financial and staff resources at the college level has been implemented, and the school is working with college level staff to tailor these efforts to the needs of the programs. This support will include a wide variety of initiatives and strategies including but not limited to the leveraging of existing relationships with other colleges on campus to increase enrollment in our Accelerated Masters Programs (AMP), hosting open house events at the college, faculty outreach to potential students at national conferences, increased staff attendance to recruitment fairs, increased outreach to national and international students through social media and paid digital advertising, and the use of current students as ambassadors for the programs on and off campus. A draft outline of this strategy can be found in Addendum X.4 2018-19 CAPLA Graduate Programs Recruitment Plan.

Facilities/Space:

Our space is limited and with the university mandate to grow we will need to address potential needs for additional space in upcoming years. In 2017-19, CAPLA hired an outside architecture firm to evaluate the facilities and space within our two buildings. Although the changes are focused on the CAPLA West Building and our program operates primarily in the CAPLA East Building, the building programming will affect both buildings.

6. DESCRIBE ANY SUBSTANTIAL CHANGES IN THE PROGRAM SINCE THE LAST ACCREDITATION REVIEW.

Since the last SER (beginning in 2013), the following changes and milestones have occurred:

- At the end of the 2015 academic year, Ronald R. Stoltz, Mark Frederickson, and Oscar Blasquez retired.
- Beth Scott left the university at the end of the 2013-14 academic year.
- In 2015, Kirk Dimond and Kelly Cederberg were hired as assistant professors and Helen Walthier, Jennifer Patton, and Charles Anderson were hired as adjunct lecturers.
- At the end of the 2015-16 academic year, CAPLA Dean Janice Cervelli left CAPLA to accept a position as President of St. Mary's College.
- Mary Hardin, associate dean, was appointed as interim dean in May 2016 and served until academic year 2016-17.
- Beginning academic year 2016-17, Travis Mueller was hired as adjunct lecturer.
- Kelly Smith was hired as assessment coordinator for the School of Landscape Architecture and Planning in July 2016.
- Gina Chorover was hired as adjunct lecturer in 2015 and became a lecturer and program coordinator of the Heritage Conservation Graduate Certificate Program in August 2016.
- Eduardo Guerrero was hired as a lecturer in January 2017.
- Program coordinator, Laura Jensen, was hired in July 2017 to manage the school's website, social media, marketing and graphics.
- Belinda Flores-McCleese was hired as an administrative assistant to the director in fall 2017.
- Beginning academic year 2017-18, Bo Yang and Shujuan Li were hired as associate professors.
- Nancy Pollock-Ellwand was hired as the new CAPLA dean and commenced her tenure at the beginning of the 2017 academic year.
- In fall 2017, Sustainable Built Environments was added to the school, providing entry into all graduate programs for Accelerated Master's Program students.
- The Master of Real Estate Development program was added to the school in 2013 and the Graduate Certificate in Heritage Conservation was moved from the School of Architecture to the School of Landscape Architecture and Planning in spring 2018.
- Over the accreditation period there were no substantial changes to the curriculum. However, LAR 529 *Introduction to the Built Environment* was replaced with a required elective.

7. DESCRIBE WHO PARTICIPATED

A team was formed to coordinate and prepare the LAAB Self-Evaluation Report (SER) in conjunction with faculty, graduate students, alumni and professionals. The primary project team consisted of the school director, the assessment coordinator, an assistant lecturer, a program coordinator, the school's administrative assistant, and a student worker. The team created a time-line for completion of the project, created a server location for files, and oversaw the completion of sections of the report. The primary roles of each participant are as follows:

SER Roles, Preparation and Review Process

Director, Lauri Macmillan Johnson: Responsible for oversight of the SER, completion of several sections of the report, and review and editing of final draft.

Assessment Coordinator, Kelly Smith: Responsible for overall project management, distribution and analysis of survey instruments, collection and interpretation of student and alumni data, preparation of sections and final editing.

Assistant Lecturer, Gina Chorover: Responsible for creation and communication of timeline and deadlines, preparation of sections, collection of financial data, review and editing of final draft and creation and implementation of participation process.

Program Coordinator, Laura Jensen: Responsible for preparation of report sections, collection of data, and report production including graphic design.

Administrative Assistant, Belinda Flores-McCleese: Responsible for the collection of information and preparation of addendum materials and for assistance in communication with stakeholders.

Student Worker, Heloise Mazzotti: Responsible for assistance with data collection, preparation of tables and addenda and administration support.

Graduate Academic Advisor, Amy Moraga: Responsible for collecting and organizing student application, enrollment, and matriculation data as well as data on student assistantships.

Assistant Dean of Finance and Administration, Simon White, and Data and Financial Analysis, Jeff Guba: Provided financial data for the report.

Landscape Architecture Faculty (M. Livingston, B. Yang, K. Cederberg, K. Dimond, S. Li): Responsible for preparation and review of report sections.

Current MLA Students: The final draft SER was made available to current students via posting on the program's website. A SER overview presentation was given to the students by the school director (see Addendum X.5). Student leadership also contributed information about their outreach activities and awards for the report.

MLA Program Alumni and Landscape Architecture Professionals: MLA alumni and local landscape architectural professionals were notified by email and social media about the accreditation process and the availability of the final draft SER, which was posted on the program's website. Director Lauri Macmillan Johnson presented an overview of the report to alumni and professionals at the Arizona ASLA luncheon in September 2018 (see Addendum X.5 for a copy of the presentation). Participants were invited to review the report and provide feedback. Feedback was reviewed and the team integrated suggestions as appropriate.

IT Staff: Lucas Guthrie provided information for Standard 7: Facilities.

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1 PROGRAM MISSION & OBJECTIVES

STANDARD 1: The program shall have a clearly defined mission supported by goals and objectives appropriate to the profession of landscape architecture and shall demonstrate progress towards their attainment.

INTENT: Using a clear concise mission statement, each landscape architecture program should define its core values and fundamental purpose for faculty, students, prospective students, and the institution. The mission statement summarizes why the program exists and the needs that it seeks to fulfill. It also provides a benchmark for assessing how well the program is meeting the stated objectives.

A. PROGRAM MISSION

1. State the current program mission and date adopted.

Our mission (adopted 2016): To prepare students for the practice of landscape architecture and engage them in applied scholarship with an emphasis on sustainable design strategies. We aim to advance the practice of landscape architecture through teaching, research, creative works, and community engagement.

Our vision: To advance sustainable design in arid environments for global application.

Our program strives to continuously evolve its approaches to improve design processes and solutions. Within this context, our central theme is sustainable design characterized by a careful understanding of landscape ecology, landscape planning, cultural landscapes, history and theory, fine art, and technical and digital media proficiency. We define ourselves by the quality of our graduates who are prepared for professional practice as scholars of the discipline.

2. Describe how the mission statement reflects the purpose and values of the program and how it relates to the institution's mission statement.

The program mission stated above reflects the purpose and values of the program in the following ways:

We Value	How mission reflects values
Experiential active learning and studio culture as a focus of excellence in learning and teaching	All courses in the curriculum involve an interactive approach that develops students' analytical and problem solving skills and prepares them for practice. Studios and support courses typically employ real-world community projects, applied research, and case reviews/studies to enhance knowledge acquisition, skill building, and professional ethics.
Sustainable design strategies	Our mission is directly tied to the importance of sustainable design strategies and practice, and we prepare students to be responsive to environmental issues. We believe that current and future practice in the built environment professions must address the grand challenges of climate change, limited natural resources, and urban growth.

We Value	How mission reflects values
Preservation of cultural heritage	We believe that design decision making in landscape architecture must consider built and cultural history. The rich cultural heritage of Tucson and the Southwest creates a framework for design considerations and processes in the development of future professionals.
Creative and artistic design solutions	Our mission focuses on sustainable design strategies. We also believe artistic expression, cultural understanding, contextual interpretation, and narrative story telling are important skills of a well prepared practitioner. We emphasize all of these design aspects in the curriculum.
Interdisciplinary partnerships	We support interdisciplinary projects in design studios, faculty research, and community outreach projects. This approach continues to grow as an emphasis in the practice of landscape architecture and the scholarship of the discipline.
Participation in outreach and service learning opportunities that advance teaching, research, and professional practice	Community-based real-world projects are often used in design studios. The complexities and nuances inherent in these projects support our practice-based approach to learning and applied scholarship.
Place-based learning, with application to other regions	The arid environment of the Sonoran Desert, the City of Tucson, and surrounding regions provide opportunities for learning about landscape architecture and placemaking. Our sensitive natural environment and rich cultural history provide a training ground for students learning to develop regionally specific solutions to design challenges in the built environment. Once developed, these skills are transferable to other regions and environments.
Promotion of the health, safety, and welfare of the public	We encourage our graduates to seek professional licensure. We prepare our students for this process by educating them about industry standards necessary for successful practice.
Respect for diversity and inclusion	We prepare students for practice in diverse settings by including issues related to social equity, universal design, and socio-cultural factors in design in our curriculum.

We have created a comprehensive curriculum that provides students with the knowledge, skills, and values necessary to successfully enter practice. Over 90% of our students find jobs in the field of landscape architecture upon graduation.

Our curriculum includes the following content areas: 1) History, Theory, and Criticism, 2) Design and Design Methods, 3) Sustainable Design Strategies, and Natural Processes, 4) Socio-Cultural Factors in Design, 5) Design Implementation, 6) Professional Communication, Documentation, and Technology, 7) Professional Practice, and 8) Research and Scholarly Methods. These content areas and their related topics have been identified by the faculty as necessary components in the education of students for entry into the profession of landscape architecture. The curriculum matrix (Addendum x.9) demonstrates how each course covers the topics as primary, secondary, or introduced learning objectives.

The program mission relates strongly to the to the institution's mission statement.

The Master of Landscape Architecture (MLA) Program exemplifies the spirit of the land-grant mission that has characterized the University of Arizona since its founding. This professional degree program reflects the practical land stewardship values that led to the establishment of the profession in 1899. Our program provides education, research, and outreach on the systematic organization of public and private outdoor places for human and environmental health, social well-being, preservation of cultural heritage, and visual beauty.

With the 2017 hiring of UA President Robert C. Robbins and CAPLA Dean Nancy Pollock-Ellwand, both the university and the college embarked on year-long strategic planning processes to

be completed in fall 2018. CAPLA's strategic planning process began in the fall of 2017, when students, faculty, administrators, staff, and community stakeholders were invited to participate in a series of surveys, focus groups, committees, and college-wide meetings and workshops that defined and refined CAPLA's Vision, Values, and Aspirations (see Addendum X.6 CAPLA Strategic Plan Timeline).

A college ad hoc committee, the Strategic Planning and Operations Advisory Committee (SPOAC) was formed for one year in order to provide cross-college, cross-disciplinary, and cross-skills support and advice to the dean on specific challenges and opportunities facing the college as it looks to the future. Members of the committee included four faculty representatives from each of the two schools, seven staff representatives from across the college, and one student advisor. Topics considered by SPOAC included but were not limited to: college strategic planning; college branding; college performance based on strategic metrics; shared governance structures; Responsibility Centered Management (RCM) levers for change; growth opportunities; and academic goals versus resources. The group held monthly working sessions focusing on advancing the college's new Strategic Plan. The group reviewed the Vision, Values and Aspirations of the plan. It then broke out into three Working Groups which each included additional members from the CAPLA community beyond the original SPOAC group to develop Objectives and Initiatives under themes of Teaching, Research and Community Partnerships. As a result of this process, a college Vision statement was created with Values, Aspirations, Objectives, and Initiatives. See Addendum X.7 for details on the CAPLA strategic plan.

CAPLA Vision: Building a Changing World

CAPLA Values:

Value	Associated (Expected) Behaviors
Emergent Thinking	<ul style="list-style-type: none"> • Create and own transformative ideas • Foster future oriented research, teaching, and outreach • Apply expertise, skills, and knowledge to global challenges • Anticipate new opportunities to expand college reach and impact • Stay among the vanguard
Curiosity	<ul style="list-style-type: none"> • Encourage the spirit of inquiry and delight in learning • Make strategic decisions with an appropriate balance of invention, risk, and probable success • Provide inspirational solutions with impact • Explore the unknown • Apply lessons learned
Design Perspective	<ul style="list-style-type: none"> • Hone our sensibilities in this place that is the Sonoran Desert Use design thinking methods which are empathetic and consider the well-being of all participants • Leverage studio culture and making environments to enhance student centered learning and applied research • Address the global impacts of the built environment • Demonstrate the value of design and planning in reshaping the world
Interdisciplinarity	<ul style="list-style-type: none"> • Use intellectual diversity as a means to create comprehensive thinking • Create thoughtful, purposeful partnerships • Remove barriers and develop rules of engagement to be applied to interdisciplinary processes • Support cross-institutional, cross-college, and cross-departmental activity • Facilitate inclusive approaches to problem solving
Collaboration	<ul style="list-style-type: none"> • Seek different perspectives, backgrounds, skills, and expertise • Respect the value, skills, and qualities of others • Strive for transparency, engagement, sharing, and divergent thinking • Teach and demonstrate collaborative problem solving skills

Value	Associated (Expected) Behaviors
Stewardship	<ul style="list-style-type: none"> • Be accountable for our responsibilities and actions • Exhibit professional ethics, competence, and reliability • Treat all members of our community with respect, dignity, and empathy, empowering them to be excellent in their domains • Use resources fairly, ethically, and humanely to achieve goals in the present and to safeguard the future

CAPLA Aspirations:

- CAPLA as a Leader in Built Environment Innovation
- Do Transformational Research
- Create a Transformational Learning Environment
- Embrace our Land-Grant Status to Enrich Teaching, Research, and Service in the Built Environment
- CAPLA as a Leader in Inclusive Excellence

The program Vision, Mission, and Values align with Vision, Values, and Aspirations of the college. As a campus leader in community engagement, CAPLA advances the university's historic land grant mission through design and planning assistance to diverse communities throughout the state of Arizona and the world. CAPLA's core mission is to train architects, landscape architects, urban planners, and real estate developers to work effectively in the challenging environmental conditions of our region, and to equip them with the skills to transport this knowledge to other regions and environmental conditions. CAPLA alumni are leaders in sustainable design and planning who address major challenges facing humankind and the globe—designing for the conservation of energy and water; planning for urban infrastructure, health, and wellbeing; and preserving cultural heritage and natural ecosystems.

Dean Nancy Pollock-Ellwand was a member of the university's Executive Strategic Planning Committee for the 2019-24 Strategic Plan which was completed in November 2018. Due to her leadership and active participation, one of the university strategic pillars is aligned with CAPLA's Vision: Building a Changing World. CAPLA will participate in this initiative through multi-disciplinary campus-wide and external partnerships.

Pillar 2: Grand Challenges: Tackling Critical Problems at the Edges of Human Endeavor (Summary)			
2.1 Space Technology, Development and Defense for the 4IR	2.2 Future Earth: Shaping a Resilient Natural and Built Environment	2.3 Precision Health, the Brain, and the Immune System	2.4 Humans, Society, and Intelligent Systems
<ul style="list-style-type: none"> • 2.1A Overall theme vision and sub-initiative integration • 2.1B Humans & Robots on Mars: Advance human and non-human space exploration (e.g., autonomous vehicles, 3D printing, health in space, hyperspace) • 2.1C What's out there? Understand the origins and existence of life in space (e.g., astrobiology, exoplanet search and characterization) • 2.1D Defending our planet: Develop space technologies in service of monitoring and supporting Earth (e.g., automated space object data base management, remote sensing) • 2.1E The Business of Space: Define the future of security, governance, and business models for space development (e.g., asteroid mining, space tourism) 	<ul style="list-style-type: none"> • 2.2A Overall theme vision and sub-initiative integration • 2.2B Future Earth: Predict and plan for future Earth (e.g., Earth systems predictive modeling, link climate models to built environment models) • 2.2C Living in Extreme Climates: Adapt and build resilience to extreme climates leveraging our strengths in the social, natural and physical sciences (e.g., water planning and policy, ecosystem carbon management) • 2.2D Building a Changing World: Define design needs and solutions to create a sustainable, renewed, and purposefully designed built environment in the 4IR (e.g. livable cities for the 4IR, built environment lifecycle, trillion sensor future and IoT in built environment, automated construction, cloud infrastructure) 	<ul style="list-style-type: none"> • 2.3A Overall theme vision and sub-initiative integration • 2.3B The Human Brain Project: Revolutionize our understanding of the human brain (e.g., mapping, neurological disorders and diseases) • 2.3C The Human Immune Project: Unlock the mysteries of the human immune system • 2.3D Precision Health: Lead research in applied genetics and genomic biology to deliver early diagnosis and individually tailored treatments to patients • 2.3E Bridging the Health Gap: Expand medical access to underserved populations (incl. excellence in veterinary medicine) through innovative distributive care models 	<ul style="list-style-type: none"> • 2.4A Overall theme vision and sub-initiative integration • 2.4B Technology for Humans and Intelligent Systems: Advance the technology of intelligent systems (e.g., connected and autonomous agents) and human engagement with these systems (e.g., AR/VR, motion tracking) • 2.4C The State of the World in the 4IR: Explore implications and opportunities of the 4IR on individuals (e.g., finding meaning, advancing human potential) and societal and geopolitical relationships (e.g., multilingualism, poverty, inequality, border issues) • 2.4D Digital Privacy and Cybersecurity 2.0: Define future for law, privacy and security in an increasingly digital world • 2.4E Creative Competencies in the 4IR: Apply visual literacy, design thinking, creative expression and to solve emerging, critical human challenges

Pillar 2 Initiatives summary from the UA Draft Strategic Plan.

Pillar 2: Sub Initiative 2.2D Building a Changing World

Executive summary

The UA will be the first university to develop a robust university wide ecosystem supporting research, teaching, and service for the built environment, defining a new fully integrated discipline leveraging knowledge and research from all UA colleges. This capacity development effort will be built upon existing strengths such as public policy, environmental sciences, transportation, optical sciences, management, planning, data sciences, public health, geography, and materials. The research foci, to be determined through a series of formal discussions with faculty across the campus, may include livable cities, the trillion sensor future, crisis response, technology & changing design processes, decision policy, and built environment lifestyles.

To achieve this goal, the university will take five specific steps 1) Create the Institute for the Multidisciplinary Study of the Built Environment; 2) Develop a series of formal and informal US faculty conversations designed to quickly craft and narrow the research focus; 3) Offer seed funding to incentivize and initiate multidisciplinary research focused on the built environment; 4) Support faculty cluster hires and infrastructure development for data collection, analysis, modeling, and support of research for the built environment; and 5) Develop curricular and service programs to teach our students and stakeholders about multidisciplinary concepts regarding the built environment and to push knowledge into practice.

In partnership with the Future Earth Laboratory (FEL) for Decision Support and the Institute of the Environment, the UA will become the “go to” institution to help the world’s communities, policy-makers, regulators, and industry make the best-informed decisions for a future built environment that improves quality of life, health, opportunity, security, and economy.

End State Vision/Goal

Initiative KPI: 25 multidisciplinary projects focused on the built environment funded by grants over \$500,000.

From the 2018 University of Arizona Strategic Plan, completed November 2018.

B. EDUCATIONAL GOALS

1. State the academic goals of the program.

Our mission is to prepare students for the practice of landscape architecture and engage them in applied scholarship with an emphasis on sustainable design strategies. The following academic goals support this mission:

- Produce graduates who can enter private and professional practice confident in the core knowledge, skills, and values needed for professional success;
- Prepare students so that they may enter academic practice with a passion for teaching, research/scholarship, and community engagement;
- Prepare and produce graduates who are knowledgeable, highly-skilled, creative, and exceptionally well-grounded in the application of research to professional practice;
- Produce graduates who embrace interdisciplinary practice and who are productive and innovative in the field, including landscape planning and site design within a wide range of physical, legal, political, economic, social, artistic, and psychological contexts, and who are able to work with allied professions and disciplines from business management to the social and natural sciences, as well with as with private citizens;
- Produce graduates that are knowledgeable about ecological and human needs, particularly in arid and semi-arid landscapes, in both urban and rural settings and in national as well as international markets; and

- Produce graduates that embrace a body of ethics based upon the principles of sustainable design for human health, quality of life, habitation, natural resource and wildlife conservation, cultural heritage, ecological balance, and the integration of natural and urban systems within local, regional, and global contextual frameworks.

2. Describe how the academic goals relate to the program's mission.

All of the stated goals directly relate to our mission, which is to produce graduates that are prepared for the practice of landscape architecture and applied scholarship with an emphasis on sustainable design strategies.

3. Describe how the program regularly evaluates its progress in meeting its goals.

The faculty meets regularly to evaluate the program curriculum to ensure that it adequately addresses the academic goals and learning objectives identified in part C. For example, in 2017 the faculty held a workshop which included presentations by each faculty member on the design studio sequence and the stated learning objectives for each course. Subsequent discussion led to a curriculum mapping exercise. The resulting curriculum map demonstrates in detail how the core curriculum addresses the knowledge, skills, and values necessary for professional success. These include understanding landscape architectural history and theory, proficiency with design and research methods, ability to apply sustainable design strategies, knowledge on construction techniques, hand drawing and digital media expertise, understanding sociocultural factors in design, and professional ethics, to name a few (See Addendum X.9).

In terms of program assessment, the students are evaluated each year in their final studio class, *Design Studio V* (LAR 612) on a number of learning objectives. In 2017 the program also instituted a yearly Learning Outcomes Survey with graduating MLA students in order to evaluate the program (reported in Standard 4: Student and Program Outcomes). In this survey, students provide feedback on the program and rate their skills and knowledge of the learning objectives identified in part C.

Finally, the faculty reviews the long-range plan on an annual basis to evaluate progress toward meeting program goals.

C. EDUCATIONAL LEARNING OBJECTIVES

1. List the educational objectives of the program.

The faculty has identified eight broad educational learning objectives for our students to ensure that they graduate prepared for professional practice and scholarship. Our curriculum is designed so that the eight objectives (and their sub-categories) are covered in required classes (see our curriculum map, Addendum X.9).

1. History, Theory, and Criticism – students will graduate with an understanding of contemporary landscape architecture; the history of landscape architecture; design theory; design interpretation and narration; critical thinking; and design critique and evaluation.
2. Design and Design Methods – students will graduate with an understanding of the principles and aesthetics of design; creative problem solving; design programming; landscape and site analysis; background research for design applications; philosophical concept development; physical concept development (functional relationship diagrams); iterative design development; and design synthesis.

3. Sustainable Design Strategies and Natural Processes – students will graduate with an understanding of resource conservation; stormwater management; urban heat island mitigation; urban flooding mitigation; plant and ecosystem science and design; land stewardship; visual and scenic assessment; and landscape performance assessment.
4. Socio-Cultural Factors in Design – students will graduate with an understanding of user analysis; cultural analysis; community and client engagement; design for diverse populations; post occupancy evaluation; and human health and well-being.
5. Design Implementation – students will graduate with an understanding of site engineering; construction technology; site materials; construction standards, methods, and applications; and codes and ordinances related to public safety, health, and welfare.
6. Professional Communication, Documentation, and Technology – students will graduate with skills in written communication; oral communication; digital media graphics; hand drawn graphics; geospatial analysis; 2D representations and 3D modeling; technical construction drawings; and project proposal writing.
7. Professional Practice – students will graduate with an understanding of business practices; interdisciplinary practice; construction administration; contracts; policies and regulations; health, safety, and welfare; standard of care, professional ethics and values; and leadership.
8. Research and Scholarly Methods – students will graduate with an understanding of case study reviews; how to conduct literature reviews; quantitative and qualitative methods; how to frame research questions, hypotheses, and objectives; and develop proposals.

2. Describe how educational objectives fulfill the educational and mission goals.

Our mission is to prepare students for the practice of landscape architecture and engage them in applied scholarship with an emphasis on sustainable design strategies. The eight learning objectives identified above give students broad coverage of the knowledge, skills, and values needed for professional practice.

D. LONG-RANGE PLANNING PROCESS

1. What is the program's long-range planning process?

The faculty, over the course of the accreditation period, has identified four ongoing, long-range program goals necessary to meet the stated academic goals and learning objectives. The faculty then created a long-range plan around these four goals:

Goal 1: Graduate Professional Success. Prepare students for professional landscape architectural practice and scholarship through collaborative, innovative, place-based learning and provide them with the tools to advance the profession in a changing world.

Goal 2: Outstanding Curriculum. Create and maintain a robust, responsive, and professionally-rooted curriculum which fosters a comprehensive understanding of landscape architectural practice, creative problem-solving, and the knowledge, skills, and values necessary for professional success.

Goal 3: Engaged and Diverse Student Body. Recruit, retain, and graduate a well prepared, creative, engaged, and diverse student body.

Goal 4: Faculty as Leaders in their Field. Assemble and maintain a diverse, high performing, and engaged faculty that strive to be leaders in the field of landscape architectural education.

- 2. Does the long-range plan describe how the program mission and objectives will be met and document the review and evaluation process; and 3. Describe how the long-range plan is reviewed and revised periodically and how it presents realistic and attainable methods for advancing the academic mission.**

The following table summarizes the current MLA long-range plan. The plan includes the mission, program goals, objectives, strategies, benchmarks, timeframe, results, and action plans. The intent of the long-range plan is to identify specific, measurable, attainable objectives and to ensure that progress is being made to reach stated goals. Faculty review the long-range plan on an annual basis, with assistance from the school assessment coordinator.

MLA LONG-RANGE PLAN

Program Mission: to prepare students for the practice of landscape architecture and engage them in applied scholarship with an emphasis on sustainable design strategies.

Goal 1: Graduate Professional Success

Prepare students for professional landscape architectural practice and scholarship through collaborative, innovative, place-based learning and provide them with the tools to advance the profession in a changing world.

Objective	Strategy	Metric/Measure	Time Frame & Targets		2017-18 Results	Action Plan
			Benchmark	Timeframe		
1.1) Engage in partnerships with entities outside the university to promote networking, service learning, and real-world opportunities for students.	1.1.1) Faculty will actively pursue outreach projects in the community and involve students in that work. Students will have the opportunity to work with entities outside the university.	Number of outreach projects and partners in the community.	Each student will participate in a minimum of two outreach projects while in the program.	Annual	Fall 2017, LAR 612 "Green Infrastructure Proposals for Campus." Spring 2017, LAR 611 "Davis Monthan Air Force Base, Ironwood Club Plaza Design." Spring 2018: LAR 511 "Commercial Development Along Oracle Road." Spring 2018: LAR 511 "Green Infrastructure Campus Master Plan for the Star Academic High School in South Tucson, AZ." Fall 2018: LAR 611 "Iron Horse Neighborhood Park." Fall 2018- Spring 2019: LAR 596D "Rio Rico Community Space, Santa Cruz County." See Addendum X.10 for a complete list and descriptions.	Continue to evaluate and select design studio projects that have an outreach component.

Goal 1: Graduate Professional Success

Prepare students for professional landscape architectural practice and scholarship through collaborative, innovative, place-based learning and provide them with the tools to advance the profession in a changing world.

Objective	Strategy	Metric/Measure	Time Frame & Targets		2017-18 Results	Action Plan
			Benchmark	Timeframe		
1.2) Augment the formal educational experience by offering professional training and educational events throughout the year.	1.2.1) The program will offer a number of events such as: Shadow Day, CAPLA Career Fair, Grad Expo/Design Excellence, guest lecture series, and other professional trainings.	Number of events per year.	100% of students will have the opportunity to attend a professional training or event each year.	Annual	In 2017-18, a number of events were held, including lecture series, nursery tours, conferences, etc. See Addendum X.11 for a complete list and descriptions.	Student ASLA leadership committee will work with faculty to plan events each year.
	1.2.2) The program will support and encourage all students to attend a professional conference (local, state, or national) during their time in the program.	Number of scholarships/aid to attend a conference.	100% of students will attend during their tenure in the program.	Annual	According to records, in 2017, 15+ students attended the national ASLA conference in Los Angeles. On average, 10 students attend AZASLA southern chapter bi-monthly <i>Lunch and Learn</i> and other activities. The program provided ~\$4,000 for students to attend conferences in 2017-18.	Continue to promote attendance through scholarships, and explore possible extra credit for attendance.
1.3) Emphasize both professional practice and scholarship in the program.	1.3.1) Provide a one plus two curriculum where practice-oriented academic development is concentrated in the first portion of the program and where scholarship is emphasized in the latter.	Curriculum review.	All courses evaluated on an annual basis.	Annual	Curriculum review shows no changes.	Continue to evaluate and adjust as necessary.

Goal 1: Graduate Professional Success

Prepare students for professional landscape architectural practice and scholarship through collaborative, innovative, place-based learning and provide them with the tools to advance the profession in a changing world.

Objective	Strategy	Metric/Measure	Time Frame & Targets		2017-18 Results	Action Plan
			Benchmark	Timeframe		
1.4) Prepare students for entry-level practice through involvement in a variety of project types and scales.	1.4.1) The design studio sequence will offer projects that represent a variety of types and scales.	List of projects.	The design studio sequence will include a variety of topics and emerging areas of the profession.	Annual	List of projects for each design studio 2017-18. See Addendum X.10	Continue to conduct annual review of design studio sequence and selected projects.
1.5) Cultivate multidisciplinary learning opportunities within the university to prepare students for professional success in diverse environments.	1.5.1) Offer co-convened/cross-listed courses with MS Planning, Master of Landscape Architecture, and Master of Real Estate Development Program. Offer multidisciplinary design competitions.	List of co-convened/cross-listed courses and design competitions.	A minimum of three co-convened/cross-listed courses offered per year. A minimum of one multidisciplinary design competition per year.	Annual	Multidisciplinary courses include: LAR 570 <i>Introduction to GIS for PLG and LAR</i> ; LAR 611 <i>Design Studio IV</i> , and LAR 623 <i>Landscape Planning Studio</i> . Multidisciplinary design competitions offered: <i>ULI Hines and Bank of America Merrill Lynch Low-Income Housing Challenge</i> .	Continue to offer co-convened/cross-listed courses and explore new opportunities for co-convened courses with other departments. Continue to offer multidisciplinary design competitions and support faculty who run them.

Goal 2: Outstanding Curriculum

Create and maintain a robust, responsive, and professionally-rooted curriculum which fosters a comprehensive understanding of landscape architectural practice, creative problem-solving, and the knowledge, skills, and values necessary for professional success.

Objective	Strategy	Metric/Measure	Time Frame & Targets		
			Benchmark	Timeframe	2017-18 Results
2.1) Maintain a program curriculum that reflects new theories, technologies, methods, strategies, and best practices as these relate to fostering sustainable design.	2.1.1) Program faculty will monitor and assess the curriculum on an annual basis to ensure that courses meet the ever-changing needs of the profession and requirements established by its accrediting body, the LAAB.	Number of courses evaluated and reviewed and adjustments made.	All courses evaluated on an annual basis.	Annual	All courses continue to be evaluated on an annual basis and appropriate curricular adjustments were made 2013-17. It was determined that students need opportunities to take electives outside the program. One required course, LAR 529 <i>Introduction to the Built Environment</i> , was replaced with a required elective.
	2.1.2) Core courses will incorporate sustainability-oriented strategies so that all students will be exposed during their tenure in the program.	Curriculum map.	A minimum of three core courses will incorporate sustainability strategies.	Annual	Sustainability-oriented design strategies are a primary learning objective in LAR 520, LAR 522, LAR 523, LAR 544, and LAR 612.
	2.1.3) Students will have opportunities to pursue topics within their own self-directed interests	List of available electives, dual degrees, certificates, and other learning opportunities.	All students have 3 credits of required electives and 6 credits of optional electives to pursue self-directed interests. Other learning opportunities include 1 workshop per year.	Annual	All students have 9 optional electives to pursue self-directed interests.
					Continue to evaluate on an annual basis.

Goal 2: Outstanding Curriculum

Create and maintain a robust, responsive, and professionally-rooted curriculum which fosters a comprehensive understanding of landscape architectural practice, creative problem-solving, and the knowledge, skills, and values necessary for professional success.

Objective	Strategy	Metric/Measure	Time Frame & Targets		
			Benchmark	Timeframe	2017-18 Results
2.2) Graduate students that are confident in their mastery of the knowledge, skills, and values that are needed in the profession.	2.2.1) The curriculum will cover all aspects of the LAAB-recommended knowledge, skills, and values of the profession in the areas of: 1. History, Theory, and Criticism 2. Design and Design Methods 3. Sustainable Design Strategies and Natural Processes 4. Socio-Cultural Factors in Design 5. Design Implementation 6. Professional Communication, Documentation, and Technology 7. Professional Practice 8. Research and Scholarly Methods	Curriculum map.	All core courses.	Annual	All core courses cover some aspect of the LAAB-recommended knowledge, skills, and values. See curriculum map in Addendum X.9.
					Continue to assess curriculum content.

Goal 2: Outstanding Curriculum

Create and maintain a robust, responsive, and professionally-rooted curriculum which fosters a comprehensive understanding of landscape architectural practice, creative problem-solving, and the knowledge, skills, and values necessary for professional success.

Objective	Strategy	Metric/Measure	Time Frame & Targets		2017-18 Results	Action Plan
			Benchmark	Timeframe		
2.2) Cont'd	2.2.2) Assessment coordinator or staff will conduct a Learning Outcomes Survey with graduating class each spring. LAR 612 Design Studio V will evaluate students using a Learning Outcomes Rubric.	Learning Outcomes Survey results. Learning Outcomes Rubric results. Reports to faculty.	100% return rate on all assessments; one report to faculty each year.	Learning Outcomes Survey (2017-onward) Learning Outcomes Rubric (2015-onward).	Fall 2017 Learning Outcomes Rubric: Average scores on learning outcomes ranged from 2.4 to 2.8 (between meets and exceeds expectations). Spring 2018 Learning Outcomes Survey: On most measures students self-rated their knowledge and skills as good or excellent. Students were less confident in the areas of hand drawing graphics and construction materials, standards, and applications. Results were reported to faculty at the beginning of the fall 2018 semester for discussion on how to address these items.	Faculty will continue to use the Learning Outcomes Rubric and Learning Outcomes Survey findings to assess future program/curriculum needs related to the knowledge, skills, and values of the profession. A drawing workshop open to all students was conducted by guest lecturer Jim Richards, FASLA. Travis Mueller has been incorporating hand drawing into Design Studio I. Kelly Cederberg has been incorporating hand drawing into Design Studio III.

Goal 3: Engaged and Diverse Student Body

Recruit, retain, and graduate a well prepared, creative, engaged, and diverse student body.

Objective	Strategy	Metric/Measure	Time Frame & Targets		2017-18 Results	Action Plan
			Benchmark	Timeframe		
3.1) Support greater access into the MLA Program for a diverse student body.	3.1.1) Use a variety of recruiting strategies for securing outstanding in-state, out-of-state, and international students from diverse backgrounds. These include: personal communication between faculty and prospective students, social media, the website, and site visits to feeder programs.	List of recruiting methods and activities.	Use a variety of methods to recruit up to 15 students per year.	Annual	<p>Director, faculty, and the graduate academic advisor reached out to interested applicants and communicated with them directly.</p> <p>Associate Professor Bo Yang held Skype meetings with prospective international students.</p> <p>The program implemented new social media pages and marketing strategies.</p> <p>In Fall 2018, the Diversity and Inclusive Excellence Committee developed goals and an action plan to promote diversity and inclusiveness within the college. Moving forward, we will work to put these action items into place (see Addendum X.20).</p>	<p>Continue to use the website, the SLATE platform, and other methods to support greater access to the MLA Program.</p> <p>Taking advantage of newly increased level of recruitment support at the college level, work with staff to develop and implement marketing and recruitment strategies.</p>
					<p>Open houses are held every year in the spring and/or fall and marketed to prospective students at national recruiting events.</p> <p>The graduate academic advisor made several site visit trips to promote the program.</p> <p>The director, faculty, and staff have been working with the UA Graduate College on a highly specialized program called SLATE for collecting data and communicating with MLA prospects. This program is being used to manage communications with students from the moment they express interest in the program through matriculation.</p>	

Goal 3: Engaged and Diverse Student Body <i>Recruit, retain, and graduate a well prepared, creative, engaged, and diverse student body.</i>				
Objective	Strategy	Metric/Measure	Time Frame & Targets	
			Benchmark	2017-18 Results
3.2) Optimize student retention and graduation success.	3.2.1) All students are required to take the seminar sequence that is aimed at guiding them to successful completion of their research projects - MLA reports/theses.	Time to degree.	100% of students who enter their second year of the program graduate on time within 3 years.	100% of students who entered their second year of the program in spring 2016 graduated on time within 3 years.
	3.2.2) Follow diversity and inclusion priorities and best practices to maintain an environment of inclusive excellence.	Policies in place.	Uphold fair and equal treatment of all students, faculty, and staff and use a variety of mechanisms to encourage diversity and inclusion.	<p>The program consistently utilizes the following best practices:</p> <p>Make students, faculty, and staff aware of diversity and inclusion education and training through the University of Arizona's Office of Diversity and Inclusion.</p> <p>Utilize adjunct lecturers, lecturers, and guest speakers to enhance the diversity of skills, experience, worldviews, and demographics of faculty.</p> <p>When possible, use design studio projects to expose students to projects that serve under-represented communities.</p> <p>Emphasize teamwork and collaboration in all aspects of the program.</p>
				<p>The director and faculty will continue to evaluate best practices on an annual basis.</p> <p>Make better use of the resources provided by the Office of Diversity and Inclusion, including diversity training and educational publications available to faculty and staff.</p>

Goal 3: Engaged and Diverse Student Body

Recruit, retain, and graduate a well prepared, creative, engaged, and diverse student body.

Time Frame & Targets		Metric/Measure	Strategy	Benchmark	Timeframe	2017-18 Results	Action Plan
Objective							
3.3) Use alumni and other working MLA professionals to enrich the program.	3.3.1) The program will reach out to alumni to participate in various professional development events.	The number of alumni that participate in events each year.		Five or more alumni involved in the program each year.	2013-onward	<p>Alumni participated in the CAPLA Career Fair and hosted MLA students on Shadow Day.</p> <p>Alumni at local firms donated time and resources in support of PARK(ing) day.</p> <p>Alumni have formed a group called the Landscape Architecture Network (LAN), modeled after Friends of Planning. They hold office hours and mentor current students.</p>	<p>Take steps to support an alumni network and professional network, and reach out to alumni on a regular basis.</p> <p>Assist and help develop the LAN concept.</p> <p>CAPLA strategic hire of new Director of Alumni and Community Engagement – August 2018.</p>
	3.3.2) Use alumni and professionals as guest speakers and guest critics.	Document list of alumni guests at the end of each semester.		Five guests per year.	2013-onward	<p>In fall 2017, Design Studio V (LAR 612) four alumni served as jurors for the “Liba” Wheat Memorial Prize.</p> <p>The program regularly uses at least five alumni as guest speakers and critics per year. For a complete list see Addendum E.4.</p>	Evaluate numbers annually.

Goal 4: Faculty as Leaders in their Field

Assemble and maintain a diverse, high performing, and engaged faculty that strive to be leaders in the field of landscape architectural education.

Time Frame & Targets		Metric/Measure	Benchmark	Timeframe	2017-18 Results	Action Plan
Objective	Strategy					
4.1) The program will maintain a minimum of 5 FTE faculty, 4 of which hold a professional degree in landscape architecture, and at least 3 are full-time.	4.1.1) The program will hire additional faculty as needed to remain above this threshold.	Faculty records.	As stated in 4.1.	Annual	The program meets the threshold with five instructional faculty that hold Master's degrees in landscape architecture, all of whom are full-time.	Continue to adjust with any future faculty changes.
4.2) Tenure-track faculty will routinely pursue research grants and publications per Promotion and Tenure Guidelines.	4.2.1) The program will support faculty research and scholarly contributions to the profession through a variety of mechanisms such as: a startup financial package for equipment, travel, research support, and course release time.	Number of faculty receiving research support. Value of extramural funding.	100% of faculty will receive some form of research financial support for research as well as staff support, mentoring, and training.	Annual	100% tenure-track and tenured faculty received support from the school for GRAs, travel, equipment. 100% of untenured faculty are assigned to a tenured faculty mentor. College level training is available to all faculty. 100% of faculty members have access to Engineering Research Administration Services (ERAS) to support administrative needs for funded research.	Continue to support faculty research and scholarly contributions to the profession through financial support for GRAs, and course release time.
4.3) Faculty will engage in service and engagement activities per Promotion and Tenure Guidelines.	4.3.1) The program will support faculty service and engagement through professional faculty recognition.	Professional faculty recognition in the weekly CAPLA Connections newsletter where faculty and student achievements are promoted to faculty, staff, alumni, and the wider community. Documentation of service and engagement activities.	All faculty will meet annual Distribution of Effort (DOE) requirements.	Annual	100% of faculty meet DOE requirements for service. DOE has been used as an effective and transparent tool to allocate time and effort, and to maximize faculty productivity and school's operation efficiency.	Continue to support and promote faculty service and engagement through professional faculty recognition and Promotion and Tenure Guidelines.

Goal 4: Faculty as Leaders in their Field

Assemble and maintain a diverse, high performing, and engaged faculty that strive to be leaders in the field of landscape architectural education.

Objective	Strategy	Metric/Measure	Time Frame & Targets		2017-18 Results	Action Plan
			Benchmark	Timeframe		
4.4) The program will support and recognize excellence in teaching.	4.4.1) The program will support and recognize excellence in teaching through a variety of mechanisms such as: faculty attend teaching workshops offered through the UA's Office of Instructional Assessment; nominating faculty for awards; using teaching evaluations as tools for improvement; assigning senior faculty mentors, highlighting accomplishments on the website and through social media.	Number of award nominations.	At least one nomination per year; all teaching evaluations assessed	Annual	In 2017-18, Margaret Livingston was nominated and received the 2018 CELA Teaching Award Senior Level.	Continue to nominate faculty for awards.
		Number of awards received.	in annual performance reviews.		In 2017-18, Kirk Dimond was nominated and received the 2018 AZASLA Teaching Excellence Award.	Continue to use teaching evaluations as tools for improvement.
		Teaching evaluations.			In March 2017, Lauri Macmillan Johnson was named CELA Fellow.	Continue to highlight faculty accomplishments through program website, newsletter, social media, and outreach to alumni.
					All teaching evaluations were assessed and reviewed with individual faculty members during their annual performance review.	

4. Describe how the program has responded to recommendations and considerations for improvement from the previous accreditation review. Report on efforts to rectify identified weaknesses.

There were no recommendations or considerations for improvement from the previous accreditation review.

E. PROGRAM DISCLOSURE

1. Describe how program information is disseminated to the public. Provide a link to material on the internet and copies of other materials to the visiting team. Articulate how program literature and promotional media accurately describe the program's mission, objectives, educational experiences, accreditation status, student achievement, program costs for a full-time student for one academic year, estimated housing costs per year, average costs of books and materials per year, student retention and graduation rates, number of degrees per year, percentage of students with timely graduation (master's students graduating within 4 years and/or bachelor's students graduating within 6 years).

The college website (<http://capla.arizona.edu>) features information about the college, our degree programs, research, community engagement, faculty, students, and alumni. Current news items, recent projects, faculty and student recognition, and events are updated regularly.

The Landscape Architecture program has its own landing page on the college website (<http://landscapearchitecture.arizona.edu>), with links to curriculum; faculty bios; admissions, costs, and financial aid information; and the University of Arizona's statement on Diversity and Inclusion. The program page effectively communicates the school's mission and vision, and describes the central theme of the school as sustainable design that is characterized by a careful understanding of landscape ecology, landscape planning, cultural landscapes, history and theory, fine art, and technical and digital media proficiency.

From this landing page, the link "Public Information on Program Performance" includes accreditation information, estimated program and housing costs, student data, retention and graduation rates, number of degrees conferred, and student achievement scores.

The school is also represented on social media outlets such as Facebook and Instagram. School events such as lecture and speaker series, field trips, student presentations, alumni receptions, and news items such as faculty achievements and student recognition and awards are recorded and shared for current, former, and prospective students as well as community members. These platforms have been dynamic, cost effective ways of communicating the work of the program, school, and college to the outside community.

The college and school has printed brochures featuring program information and imagery that are made available to CAPLA visitors and distributed at recruiting events. The brochures contain the program mission, vision, and program description, as well as contact information for key personnel. These materials were created in coordination with other college programs and within the university style and branding guidelines, resulting in a unified collection of marketing materials for all of CAPLA.

2 PROGRAM AUTONOMY, GOVERNANCE & ADMINISTRATION

STANDARD 2: The program shall have the authority and resources to achieve its mission, goals and objectives.

INTENT: Landscape architecture should be recognized as a discrete professional program with sufficient financial and institutional support and authority to enable achievement of the stated program mission, goals and objectives.

A. PROGRAM ADMINISTRATION

Describe the location of the program related to institutional academic structure and to other administratively related programs. Is the program a part of a Department of Landscape Architecture or is it a component of a multidisciplinary department or school? If it's a part of a complex academic unit, what are the other disciplines and degrees offered within the unit? What are the other units in the larger division and/or college?

If the landscape architecture program is a part of a multidisciplinary unit, describe the administrative structure of the unit, including a description of who is designated by the central administration as the person with primary authority for budget, faculty personnel review, and faculty instructional assignments. If these duties are held by more than one person, explain how the landscape architecture program administrator effects or influences those decisions. The SER author may choose to use an organizational chart or other graphic to illustrate these relationships.

1. Is the program seen as a discrete and identifiable program within the institution?

The College of Architecture, Planning, and Landscape Architecture includes two schools: the School of Architecture and the School of Landscape Architecture and Planning (see Table 2.1). The Drachman Institute, a separate unit in the college, engages in research and community outreach projects in Arizona and throughout the Southwest. The School of Architecture includes a five-year Bachelor of Architecture Program and two graduate degree programs (Master of Science in Architecture and Master of Architecture).

The School of Landscape Architecture and Planning is comprised of five individual and distinct academic programs: the Landscape Architecture Program, the MS Planning Program, the Real Estate Development Program, the Sustainable Built Environments Program, and the Heritage Conservation Graduate Certificate Program. Within the school, there are three graduate degrees: the Master of Landscape Architecture (MLA), the Master of Science in Planning (MSP), and the Master of Real Estate Development (MRED), and one undergraduate degree: the Bachelor of Science in Sustainable Built Environments (BSSBE). The Master of Real Estate Development Program offers three stackable graduate certificates (9-12 units each) toward the master's degree. The Heritage Conservation Program offers an 18-unit graduate certificate which can be combined with a master's degree program or taken as a stand-alone certificate.

Table 2.1. College, Schools, Programs, and Degrees

College of Architecture, Planning, and Landscape Architecture	
School of Architecture	School of Landscape Architecture and Planning
Undergraduate Program - Bachelor of Architecture	Undergraduate Program Sustainable Built Environments - Bachelor of Science in Sustainable Built Environments
Graduate Programs - Master of Architecture - Master of Science in Architecture	Graduate Programs Landscape Architecture Program - Master of Landscape Architecture Planning Program - Master of Science in Planning Real Estate Development Program - Master of Real Estate Development - Graduate Certificate in Real Estate Development Analysis - Graduate Certificate in Real Estate Development Finance - Graduate Certificate in Real Estate Development Practice Heritage Conservation - Graduate Certificate in Heritage Conservation

The MLA Program is a distinct academic unit within the school. The program maintains autonomy with its budget and with faculty and student affairs including: curricular issues, faculty hiring, faculty promotion and tenure requirements, student admissions, and scholarships. See School Bylaws (adopted March 2017) in Addendum X.12 that address program autonomy, including separate Promotion and Tenure (P&T) Guidelines for landscape architecture faculty.

2. Does the program administrator hold a faculty appointment in landscape architecture? If not, where is he/she appointed?

The school director, Lauri Macmillan Johnson FCELA, ASLA, APA holds a faculty appointment in landscape architecture and teaches in the landscape architecture program.

3. How does the program administrator exercise the leadership and management functions of the program? Describe the primary responsibilities and authority of the administrator.

Under the authority of the Arizona Board of Regents, the university president, the university provost, and the college dean, it is the responsibility of the school director to exercise control over curriculum, personnel, short-and long-term planning, and financial matters pertaining to the operation of the school and its programs.

The school director, in consultation with the faculty, provides leadership in all matters of policy and is responsible for administering the affairs of the school and its programs in accordance with college and university policies. The director and the faculty are together responsible for defining program interests in terms of the college and university goals and priorities. It is the responsibility of the director, either directly or through delegation to committees, and subject to the authority of the dean, to make decisions on such matters as, but not limited to:

1. Establishing policies for expenditures from the program budgets;
2. Approving class schedules for the programs;
3. Assigning teaching, service, and administrative responsibilities to the faculty;

4. Setting the time and frequency of school and program meetings;
5. Making recommendations as a result of annual performance reviews and increases in salary with appropriate input from the Faculty Status Committee; and
6. Making recommendations on third year reviews and promotion and tenure reviews (in accordance with the University Handbook for Appointed Personnel [UHAP] policies), and continuing appointments. See <http://policy.arizona.edu/university-handbook-appointed-personnel>.

The school director is responsible for participating on the Dean's Executive Council as a representative of the school and its programs. It is the responsibility of the director to ensure the faculty have input in the administrative decisions regarding utilization of school resources, to maintain accountability for administrative decisions affecting resources in accordance with program, school, and college priorities, and to enhance cooperation among programs. The director is responsible for communicating school and program concerns and/or problems to the Dean's Executive Council, and is also responsible for reporting the decisions and directions taken by the Dean's Executive Council and the dean back to the programs.

B. INSTITUTIONAL SUPPORT

1. **Is funding available to assist faculty and other instructional personnel with continued professional development including support in developing funded grants, attendance at conferences, computers and appropriate software, other types of equipment, and technical support?**

Responsibility Centered Management (RCM) is the budgeting management tool used by the University of Arizona. According to the RCM website (<http://www.rcm.arizona.edu>), the goal of RCM is to provide an incentives-based transparent budget model for the university. At present, this model is going through a university-wide three-year review and may be revised to address stakeholder questions raised during this review.

The RCM model was developed over a period of time starting in FY 2013 and implemented July 1st, 2015 (FY 2016) in an effort to decentralize funding pools and create incentives and control of financial matters by individual colleges. Institutional university funds flow to the colleges according to the RCM formulas. Revenues are tuition based; tuition is taxed by the university and distributed to colleges based on student and credit hour subscription within departments. The undergraduate tuition return is 75% based on the unit delivering the student credit hours (SCH) and 25% based on the student's major. The graduate tuition return is 25% based on the unit delivering the credit hours and 75% based on the student's major. This model factors all revenue allocations, as well as centralized costs for facilities and administrative support. RCM allocated funds are received at the college level, and deans and dean's offices are responsible for the distribution of funds to individual programs in accordance with strategic plans and local priorities. Once allocations are made, school directors are responsible for program level budgets.

Additional university funding (called subvention) was set in the RCM base year of 2015 and is provided to the college and distributed to programs to cover the shortfalls between the college's and/or program's earned revenue and all its costs, including its share of the university support and facility costs.

The program also receives Program Fees and Differential Tuition, approved by the Arizona Board

of Regents. The Program Fee for students currently enrolled in the MLA Program is \$1,500 per semester or \$3,000 for fall & spring. Approximately 14% of the total collected fees are set aside for students with financial need and 72% of the total collected fees are returned to the program.

Tenure line faculty who were hired from 2014-present have received startup packages of \$50,000. The startup funding that is provided to incoming faculty (1/3 from the Office of the Provost, 1/3 from the college, 1/3 from the program) supports professional development: e.g., travel, conference costs, research assistants, and technology support. Once startup funds are spent, program funding for research activities can also be provided, although faculty are encouraged to seek external funding to support research costs. A proposal for faculty research incentives that will distribute some portion of the Indirect Cost Distribution that is returned to the college back to Principal Investigators and co-Principal Investigators for further research support has been conceptually approved by the dean and directors.

Additional funding is provided for all teaching faculty to support instructional needs. This includes funds for teaching assistants, field trips, classroom materials, teaching computers and software, and instructional training. Table 2.2 provides the program's total budget allocation over the accreditation period.

To assist faculty who are seeking internal and external research funding, CAPLA has contracted with the university's Engineering Research Administration Services (ERAS) to provide comprehensive grants and contracts service and support. Based in the College of Engineering, they extend their business services to other units on campus. Services include the management of proposal schedules and communications, assistance with regulatory and campus review compliance, budget preparation and justification, collecting and formatting of pre-award submission materials, and comprehensive post-award assistance. According to ERAS, their "purpose is to enable investigators to spend the bulk of their efforts on their technical proposals and associated research." For a complete list of pre- and post-award services, see Addendum X.13.

Table 2.2. MLA Program Institutional Support

	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Salary Allocation	\$739,964	\$735,655	\$714,265	\$758,572	\$895,516	\$908,591
Operating Budget Allocation	\$106,290	\$139,576	\$124,437	\$124,437	\$241,478	\$119,078
Total Budget Allocation	\$846,254	\$875,231	\$838,702	\$838,702	\$1,136,994	\$1,027,669

2. What are student/faculty ratios in studios? How are student/faculty ratios influenced by the program? What is considered normal/typical within the institutional culture or practices?

The student to faculty ratios in studios have averaged 12:1 during the last accreditation period (see Table 2.3). The program considers a normal studio to be between 12 and 18 students. Studio numbers typically increase slightly in the second year of the MLA Program because incoming students with advanced standing (students with a BLA or BArch) are placed directly into second year studio courses.

Table 2.3. MLA Students in Studio per Single Instructor.

	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
LAR 510 Design Studio I (fall 1)	9	12	12	9	9	11
LAR 511 Design Studio II (spring 1)	9	10	12	11	8	10
LAR 526 Planting Design (fall 2)	12	13	9	11	16	10
LAR 610 Design Studio III (fall 2)	13	14	8	11	12	21
LAR 611 Design Studio IV (spring 2)	11	12	9	12	14	17
LAR 623 Landscape Planning Studio (spring 2)	11	14	15	10	25	19
LAR 612 Design Studio V (fall 3)	12	7	8	10	13	19
Average Number of Students	11.0	11.7	10.4	10.6	13.9	15.3
Overall Student to Faculty Ratio						12:1

3. Is funding adequate for student support, i.e., scholarships, work-study, etc?

For the 2018-19 academic year, full-time, graduate in-state resident tuition is \$11,716 and full-time out-of-state resident tuition is \$32,065. Both in-state and out-of-state residents pay \$3,000 in MLA Program Fees and \$1,328.26 in University Fees (see Table 2.4).

Table 2.4. MLA Graduate Tuition

	Graduate Tuition	MLA Program Fee ¹	University Fees ²	Total Academic Yr. Tuition & Fees
Resident Tuition 2017-18	\$ 11,486	\$ 3,000	\$ 1,326.10	\$ 15,812.10
Non-resident Tuition 2017-18	\$ 31,436	\$ 3,000	\$ 1,326.10	\$ 35,762.10
Resident Tuition 2018-19	\$ 11,716	\$ 3,000	\$ 1,328.26	\$ 16,044.26
Non-resident Tuition 2018-19	\$ 32,065	\$ 3,000	\$ 1,328.26	\$ 36,393.26

¹ Program Fees support the following: lecture series, student travel to the ASLA Annual Meeting and EXPO and other conferences, field trips, equipment for the computer lab, partial salary support for program coordinator.

² University Fees support the following: Arizona Financial Aid Trust (AFAT) Fee, Athletics Fee, Freshman Fee, Health & Recreation Fee, Information Technology/Library Fee, Recreation Center Bond Retirement Fee, Recreation Center Program Fee, Student Media Fee, Student Services Fee, and Wildcat Events Board Fee.

The program provides financial support to offset tuition for its students in the form of:

1. Graduate Tuition Waivers (RC Waivers) available at the program level to cover any portion of tuition including Program Fees;
2. Fellowship Funds distributed by the Graduate College for need-based students;
3. Program Fee Set Aside Funds, cash based financial aid allocated by colleges obtained by reserving 14% of Program Fees;
4. Graduate Teaching and Research Assistantships (GTAs and GRAs) that provide employment and tuition waivers;
5. Scholarships at the program level that provide financial aid from donor-provided funds,
6. Graduate Access Fellowships at the Graduate College level that are intended to broaden access to graduate education and to promote diversity;
7. UA Peace Corps Coverdell Fellows eligible for returning Peace Corps Volunteers;
8. Qualified Tuition Reduction (QTR) Waivers for UA employees and affiliates; and
9. Student travel support offered by the program.

For specific information on financial support for students from 2013-18, see Addendum A.7.

The most significant source of program level funding for graduate students is from Graduate Tuition Waivers (RC Waivers) and Graduate Research and Teaching Assistantships. These are described in greater detail below:

Graduate Tuition Waivers (RC Waivers)

Under the RCM budgeting model, RC Waivers are awarded at the discretion of school directors. These are typically used for recruiting purposes. It should be noted that these and other tuition reduction methods such as those received from GRA and GTA positions have an impact on program budgets. Budgets are based on funds received from tuition dollars, thus directors must balance the total amount of tuition reduction awards given with enrollment expectations.

Typically, RC Waivers are awarded to incoming students who, in most cases, do not qualify for Graduate Assistantship positions. For incoming 2018-19 year students, these awards ranged from \$8,000 - \$10,000 for residents and \$10,000 - \$18,000 for non-residents (academic year). After students complete their first year in the program they have the skills needed to seek Graduate Assistantships.

Graduate Assistantships

Graduate Assistantship positions include Teaching Assistantships (GTAs) and Research Assistantships (GRAs). These are typically offered at .25 FTE (10 hours of work per week) or .50 FTE (20 hours per week). GRA funding is provided through research grants and contracts and faculty start-up packages. GTA positions are offered by the program to assist faculty in teaching activities.

Students receiving GTA or GRA positions are compensated with tuition remission, health benefits, and salary. Non-residents are exempted from out-of-state tuition costs. Thus all students receiving .25 FTE positions pay only half of the cost of in-state tuition; students receiving .50 FTE positions are not charged tuition at all. Table 2.5 demonstrates an estimated value of these positions.

On average, 30% of second year students receive a .25 FTE position and 5% receive a .50 FTE position. 40% of third year students receive .25 FTE position and 5% receive a .50 FTE position. Approximately 10% of the second year students receive a .25 FTE position outside of the department.

Another type of GA position available to our students is the Paul D. Coverdell Fellowships for Returned Peace Corps Volunteers. The University of Arizona is one of only two universities in the country to offer Coverdell Fellowships to students who are enrolled in a graduate landscape architecture program. Coverdell Fellows at the UA receive financial assistance and support while pursuing advanced degrees. Fellows provide service to benefit underserved domestic communities, participate in outreach and professional development, and enjoy a supportive Peace Corps community. The MLA Program typically has one to two Returned Peace Corps Volunteers receiving a Coverdell Fellowship per cohort.

Table 2.5 Estimated FY2018 Value of GA Positions

Graduate Assistantship Position .25 FTE (10 hours per week)				
	Tuition Remission	Health benefits (ERE)	Salary	Total benefit
Resident	\$ 5,743	\$ 746.98	\$ 5,746	\$ 12,235.98
Non-resident	\$ 25,693	\$ 746.98	\$ 5,746	\$ 32,185.98
Graduate Assistantship Position .50 FTE (20 hours per week)				
	Tuition Remission	Health benefits (ERE)	Salary	Total benefit
Resident	\$ 11,486	\$ 1,493.96	\$ 11,492	\$ 24,471.96
Non-resident	\$ 31,436	\$ 1,493.96	\$ 11,492	\$ 44,421.96

4. Are adequate support personnel available to accomplish program mission and goals?

The School of Landscape Architecture and Planning has several full-time and part-time staff members who devote their time to all programs in the school:

- **Administrative Assistant – Belinda Flores-McCleese:** Works immediately under the director and handles course management and scheduling; Promotion and Tenure packets; travel authorizations and disbursement vouchers for faculty; event coordination; and other administrative duties for the school as they arise.
- **Program Coordinator – Laura Jensen, MLA:** Organizes and disseminates student and faculty achievements and activities through social media and the CAPLA website; shares job and internship opportunities with students; maintains and updates website content for the programs in the school; assists with accreditation for all school programs; and creates print and digital promotional materials for school events, courses, and programs, with a focus on the Landscape Architecture and MS Planning Programs.
- **Program Coordinator – Spencer Warmuth, MAS:** Coordinates the Master of Real Estate Development, Sustainable Built Environments, and Heritage Conservation programs. Spencer provides support for all three programs by managing and operating their social media presence; communicating and assisting prospective students; interfacing with professional and corporate partners; and organizing outreach across various outlets.
- **Assessment Coordinator – Kelly Eitzen Smith, PhD:** Collects program and student data and oversees and coordinates the assessment of all programs in the school for outside accrediting bodies as well as for internal University of Arizona program assessment.
- **Student worker:** The programs in the school share a work-study student who works 20 hours

per week, and is available to provide assistance with organizational and office related tasks as needed.

CAPLA staff:

- **Graduate Program Coordinator – Amy Moraga:** Serving all graduate programs in the college, Amy’s duties include recruiting, advising, admissions, and scholarship administration for students. She works in coordination with the Graduate College.
- **Senior IT Manager – Lucas Guthrie** and **Senior IT Support Analyst - Adam Katz:** Manage and maintain CAPLA’s IT infrastructure and equipment and manage student IT staff.
- **Course Design Specialist – Brad Butler:** Works closely with subject matter experts and faculty on online course instructional design, maintenance and troubleshooting of online d2l courses, and course mapping.
- **Materials Lab Coordinator – Paulus Musters:** Oversees CAPLA’s materials lab and maintains equipment.
- **Business office staff:**
 - **Assistant Dean of Finance and Administration – Simon White:** Focuses on business development and identifying funding sources necessary to meet the college and university missions. Simon has worked at the University of Arizona for 15 years in a variety of departments holding financial and business positions.
 - **Business Manager – Elizabeth Cordova:** Manages and oversees various CAPLA business functions, which include day-to-day operations, payroll, financial budgeting and grant activity management. In addition, the business manager oversees the human resources portion of the business office.
 - **Analyst, Data and Financial – Jeff Guba, MBA:** Provides CAPLA with various types of reports relating to financial and student data. He also provides critical analysis support relating to a range of business areas (i.e. accounting).
 - **Accountant – Carmen Robles** and **Associate Accountant – Priscilla Corella:** Provide support to the CAPLA community relating to accounting, human resources, and other important business areas.
- **Development and Alumni Relations staff:**
 - **Development Director – TBD:** Directs and manages the identification, qualification, cultivation, and solicitation of major individual, corporate, and foundation prospects in support of CAPLA.
 - **Director of Alumni and Community Engagement – Kay Olsen Brown:** Develops and maintains relationships with CAPLA alumni and donors by organizing alumni and scholarship events, maintaining contact with alumni and donors through newsletters and direct communication. Kay is the main point of contact for CAPLA alumni.
 - **Development and Alumni Relations Coordinator – Kaitlyn Armendariz:** Assists the Director of Alumni and Community Engagement in all aspects of alumni and donor relations.
- **Marketing Manager – Cindy Rupp-Valdez:** Works in conjunction with the dean, associate dean, directors, faculty, program coordinators, and other related staff in the coordination of marketing and promotional materials and efforts.
- **Recruitment Coordinator – Emilio Romero:** Responsible for college-wide student recruitment efforts.
- **Associate Dean for Research and Academic Affairs – Barbara White Bryson, EdD, FAIA:** Coordinates promotion and tenure activities, holds research workshops, oversees building operations, and manages studio and office assignments for students, faculty, and staff.

These individuals work well as a team committed to all programs in the college. With the recent addition of **Dean Nancy Pollock-Ellwand**, who holds degrees in Landscape Architecture (BLA), Architecture (MA), and Planning (PhD), the college and the school are well supported and staffed, thus ensuring the attainability of program mission and goals.

At the university level, there is a significant amount of support and guidance available for faculty at every phase of their career. Each spring, the Vice Provost for Faculty Affairs initiates the mandatory promotion and tenure process by conducting a series of workshops, covering the issues commonly faced by assistant and associate professors as they advance in their careers. The Office of the Vice Provost for Faculty Affairs also provides a wealth of documents and information on its website about promotion schedules and policies.

The university's office of Research, Discovery and Innovation (RDI) also provides services to faculty. RDI "is responsible for advancing transformative excellence in research across campus, with particular attention to our land-grant mission of service to the State of Arizona. We do so by enabling the research success of our faculty through supporting university research centers, institutes, museums and core facilities; providing research development, compliance and safety services; and securing strategic external partnerships" (<https://research.arizona.edu/>).

C. COMMITMENT TO DIVERSITY

1. How does the program demonstrate its commitment to diversity in the recruitment and retention of students, faculty and staff?

The University of Arizona and the School of Landscape Architecture and Planning is committed to creating and maintaining an environment free of discrimination. In support of this commitment, the university prohibits discrimination, including harassment and retaliation, based on a protected classification, including race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information. The MLA Program is dedicated to inclusive excellence: the recognition and acceptance of the talents, worldviews, perceptions, cultures, and skills that diverse communities bring to the educational enterprise that can be harnessed to prepare students for leading, living, and working in a diverse world.

In terms of recruitment, we utilize strategies that maximize the pool of diverse students, faculty, and staff. This includes personal communication between faculty and all student and faculty candidates; using social media and the website to attract diverse candidates; and attending recruiting events held in a variety of settings, including locations with underrepresented candidates. Beyond recruitment, we are dedicated to upholding an environment where all students, faculty, and staff feel safe and welcomed.

At the college level, the CAPLA Diversity and Inclusive Excellence Committee, of which Assistant Professor Kelly Cederberg is co-chair, has prepared a report and action plan for the college which recognizes the following diversity and inclusion priorities, best practices, and initiatives (see Addendum X.20 for the full report):

Objective 1: Recruit, support, and retain successful students who reflect the future of Arizona and the communities we serve.

- Initiative 1: Continuously recruit diverse students.
- Initiative 2: Emphasize recruitment in under-served Arizona populations, in part by leveraging new Hispanic Serving Institution status.
- Initiative 3: Provide new student, faculty, and staff orientations that introduce students to

the CAPLA culture of diversity and inclusiveness.

Objective 2: Reinforce an inclusive and respectful environment where all faculty, administrators, staff, students, and outside partners contribute to CAPLA's success.

- Initiative 1: Include diversity and inclusiveness in leadership, goals, and values.
- Initiative 2: Embed diversity in human resources, student affairs, and services.
- Initiative 3: Support and re-invest in staff through professional development opportunities.
- Initiative 4: Recruit and promote to achieve faculty diversity.
- Initiative 5: Acknowledge the history of diverse groups and their contributions in different disciplines within CAPLA.
- Initiative 6: Develop new projects and initiatives to include more diverse groups in the community.

Objective 3: Prioritize wellbeing, equity, and diversity as a central tenant of CAPLA culture in all our activities.

- Initiative 1: Continuously benchmark with our peer institutions seeking opportunities to improve practices and culture.
- Initiative 2: Conduct cultural competency training offered at least once annually, in coordination with all college meetings at the beginning of each semester.
- Initiative 3: Include diversity and inclusiveness in marketing and promotional materials.
- Initiative 4: Complete data collection and assessment moving toward diversity and inclusiveness goals.
- Initiative 5: Fund diversity and inclusiveness initiatives.
- Initiative 6: Ensure physical spaces are inclusive.

CAPLA has a newly formed International Students Club, for which Associate Professor Shujuan Li is a faculty mentor. In October 2018 they held their first “Cultural Day” event which celebrated the foods and cultures of Brazil, China, Iran, Mexico, and Venezuela.

At the university level, the Office of Diversity and Inclusion offers workshops and training for students, faculty, and staff. For example, in October 2018, they offered workshops on reducing unconscious bias and micro-aggressions in the classroom, serving our international students, designing effective courses for diverse learners, and understanding and promoting student success. Eduardo Guerrero, Senior Lecturer and support faculty for our program, attended all workshops and earned a Leader in Classroom Diversity and Inclusion Certificate. For more information on their resources, see <https://diversity.arizona.edu/>.

D. FACULTY PARTICIPATION

1. Does the faculty make recommendations on the allocation of resources and do they have the responsibility to develop, implement, evaluate, and modify the program's curriculum and operating practices?

Faculty meetings are held twice per month where a range of issues are discussed. Faculty also serve on school and college committees. The director has regular meetings with individual faculty members to discuss curricular issues and resources as needed.

Faculty members have the ability to oversee and make changes to the program's curriculum and operating practices on a regular basis. According to School Bylaws (approved March 2017), each

graduate program shall have a Curriculum Committee to oversee its own curriculum, entrance and graduation requirements, and other academic policies of its respective degree. Specific duties include: 1) review and implementation of accreditation (as applicable) curriculum requirements; 2) program changes; 3) course sequencing; and 4) consideration of new courses. The committee will be composed of the director and faculty of the whole with respect to each graduate degree. Regular faculty meetings shall be used as needed to review proposals on new degrees or programs, dual degrees, and additions or deletions to existing courses.

Faculty work collaboratively with one another across courses, often participating as studio reviewers for each other's studios. This affords an excellent opportunity for faculty members to informally assess other studio courses and witness course progress and student outcomes. This opens a dialogue between instructors in which pedagogical techniques and course curricula can be discussed and modified or improved. The open nature of the studio, open access to classrooms, and the close proximity of faculty offices to the studio and to each other create ample opportunity for discussion and dialogue about successes, challenges, and solutions.

In addition, the assessment Coordinator regularly collects feedback from the students regarding the curriculum and reports those findings back to the faculty for discussion and review.

Faculty participate in notifying administrators when teaching materials and equipment should be updated and refreshed. Faculty also make requests for support for field trips, emerging technology (i.e. a drone for aerial photography), and money for lunches and meetings between faculty mentors and mentees. Most faculty requests are considered at the school level, but occasionally rise to the college level where shared resources are warranted. Faculty members also make recommendations on resource allocation, including furnishings such as office furniture and studio desks, and teaching needs including projection systems, computer labs and software. A recent grant, initiated by faculty, was submitted to the university office of Academic Affairs for a classroom renovation, furniture, and projects/computers.

Operating practices specified in the School Bylaws, (approved March 2017), may be amended by favorable vote of at least two thirds of the full members.

2. Does the faculty participate, in accordance with institutional guidelines, in developing criteria and procedures for annual evaluation, promotion and tenure of faculty?

The faculty adhere to UHAP procedural guidelines for promotion and tenure and have developed program specific Promotion and Tenure Guidelines that supplement the School Bylaws (approved March 2017).

3. Does the program or institution adequately communicate and mentor faculty regarding policies, expectations and procedures for annual evaluations, and for tenure and promotion to all ranks?

The school has a mentoring program to assist junior tenure-track faculty in the promotion and tenure process. When a new faculty member is hired, the director appoints a more senior faculty member as their mentor. This relationship is expected to last for approximately the first two years of the new faculty's appointment in the school. Successful mentoring involves dialogue and engagement between mentors and mentees. The mentor is expected to provide advice to the mentee regarding teaching, research, and service/outreach and the tenure and promotion process. Mentors provide advice regarding grant opportunities, publication processes, and

suggestions on best practices for success. The director also meets regularly with junior faculty to provide advice and support (see Addendum X.14 for the program mentoring guide).

4. Does the faculty participate, in accordance with institutional guidelines, in developing and applying criteria and procedures for the appointment and assessment of program and academic unit leadership?

Directors and deans are reviewed every five years according to UHAP guidelines in areas of leadership, innovation, resource management, partnering, and building capacity. According to UHAP, Chapter 5 Section 3: reviews follow a more comprehensive process for performance assessment than annual performance reviews in order to provide an opportunity to assess long-range goals and objectives. Such reviews appropriately take into consideration the progress of the unit over the period reviewed, and the role of the administrator in this development. These reviews focus on the performance of the individual administrator and are distinct from academic program reviews. The five-year review evaluates administrators on their leadership in developing collaborations and managing resources to build capacity and advance innovation based upon criteria established by the university, feedback from the administrator’s supervisor, and input from those with whom the administrator works.

E. FACULTY NUMBERS

1. Describe the faculty resources (as either full-time positions dedicated to the program, full-time positions split between programs with a percentage committed to the landscape architecture program or part-time positions within the program). Describe how the program meets the appropriate standards:

- c. An academic unit that offers a single first-professional degree program at the continuing full Accreditation status has an FTE of at least five instructional faculty. At least four of these faculty members hold a professional degree in landscape architecture and at least three of them are full-time.*

The MLA Program meets requirement “c” with five instructional faculty that hold Master’s degrees in Landscape Architecture (see Tables 2.6 and 2.7).

Table 2.6. 2018 Faculty Member Degrees

	BLA or BSLA	MLA	Doctorate
Professors	1	2	1
Associates		1	2
Assistants	1	2	1
Instructors/Lecturers (non tenure-track)		2	
Support faculty (do not teach)		1	
Total Degrees	2	8	4

Table 2.7. Degrees Specified

Faculty	Other Degrees	BLA	MLA	Doctorate
Johnson, L. Professor		X	X	
Livingston, M. Professor	B.S., Horticulture; M.S. Plant Sciences		X	X
Yang, B. Associate Professor	BArch, MArch		X	X
Li, S. Associate Professor	B.S. Geography; M.S. Ecology			X
Cederberg, K. Assistant Professor	B.F.A.		X	
Dimond, K. Assistant Professor		X	X	
Stoker, P. Assistant Professor	Master of Resource Management			X
Mueller, T. Adjunct lecturer (non-tenure)	B.A. Music		X	
Walthier, H. Adjunct lecturer (non-tenure)	J.D.		X	
Support Faculty				
Chorover, G.	M.S. Business Administration		X	
Guerrero, E.	Master of Urban Design			

2. Are student/faculty ratios in studios typically not greater than 15:1?

Student/faculty ratios in studios are typically less than 15:1. See Section B, Institutional Support, Table 2.3, page 41.

3. Does the strategic plan or long range plan include action item(s) for addressing the adequacy of the number of faculty?

The program's Long Range Strategic Plan (2017-21) includes action items for addressing adequacy of number of faculty members. See Standard 1, page 34, Objective 4.2 for details.

4. Is the number of faculty adequate to achieve the program's mission and goals and individual faculty development?

The program's mission and goals are achieved through our current faculty who hold a combined total of 10 professional degrees in landscape architecture. Our dean, Nancy Pollock-Ellwand, who holds a faculty appointment in the MLA Program, has a BLA, MArch, and PhD in Planning. See Addendum A.1-A.6 for more information.

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3 PROFESSIONAL CURRICULUM

STANDARD 3: The first professional-degree curriculum shall include the core knowledge skills and applications of landscape architecture.

- a. In addition to the professional curriculum, a first professional degree program at the bachelor's level shall provide an educational context enriched by other disciplines, including but not limited to: liberal and fine arts, natural sciences, and social sciences, as well as opportunities for students to develop other areas of interest.*
- b. In addition to the professional curriculum, a first professional degree at the master's level shall provide instruction in and application of research and or/scholarly methods.*
- c. A first professional degree at the master's level that does not require all students to have an undergraduate degree before receiving the MLA shall meet the requirements for both a and b.*

INTENT: The purpose of the curriculum is to achieve the learning goals stated in the mission and objectives. Curriculum objectives should relate to the program's mission and specific learning objectives. The program's curriculum should encompass coursework and other opportunities intended to develop students' knowledge, skills, and abilities in landscape architecture.

State whether paragraphs a, b, or c (above) are relevant to this review.

Paragraph b is relevant to this review.

A. CURRICULAR EXPRESSION OF THE MISSION AND OBJECTIVES

(This criterion isn't directed towards the evaluation of the Mission and Objective, but rather on how the curriculum is developed and delivered in carrying out the expectations of the Mission and Objectives.)

1. How does the curriculum address the program's mission, goals, and objectives?

To meet our mission of preparing students for professional practice, one of our primary goals is to maintain a robust, responsive, and professionally-rooted curriculum which fosters a comprehensive understanding of landscape architectural practice, creative problem-solving, and the knowledge, skills, and values necessary for professional success.

We strive to maintain a program curriculum that reflects new theories, technologies, methods, strategies, and best practices as these relate to fostering sustainable design.

In the three-year curriculum designed for the career-shift student or first professional degree students there are five sequential semesters of landscape architecture design (including additional design courses in planting design and landscape planning) with a final sixth semester devoted exclusively to completion of an MLA report/thesis.

In meeting objectives, the MLA Program focuses on:

- a strong introduction in design theory, principles, and processes;
- a thorough knowledge of the role of history and theory in design;
- the importance of landscape performance/assessment and ecology;
- landscape architectural design implementation;
- the important role of digital technology;
- strong relationships with the Architecture and Planning Programs; and
- the integration of research and other forms of scholarship in advancing the profession.

The curriculum focuses on the role and contribution that our graduates can make in shaping sustainable design strategies for the Southwest with applications that extend globally. In our curriculum we emphasize:

- collaborative and cooperative learning;
- contributions to allied fields of study through service integrated projects and learning;
- serving society through community engagement, outreach, service learning, and field teaching;
- applications for theory and practice;
- preparing students for professional practice including licensure and registration; and
- allowing students great latitude in selecting an area of concentration through their MLA report/thesis.

2. How does the program identify the knowledge, skills, abilities and values it expects students to possess at graduation?

The faculty used the criteria established by LAAB with modifications to identify the following eight curricular focus areas, with a particular emphasis on sustainable strategies as part of our mission:

1. History, Theory, and Criticism
2. Design and Design Methods
3. Sustainable Design Strategies and Natural Processes
4. Socio-Cultural Factors in Design
5. Design Implementation
6. Professional Communication, Documentation, and Technology
7. Professional Practice
8. Research and Scholarly Methods

Within each area, the faculty identified specific learning objectives that they expect the students to possess at graduation. These curricular areas and related learning objectives were used to create a curriculum map that identifies primary, secondary, and introduced learning objectives for all core classes (see Part B).

B. PROGRAM CURRICULUM

1. How is the program curriculum guided by coverage of history, theory, etc.:

The following matrix shows how our core curriculum covers the knowledge, skills, and values of the profession:

	First Year								Second Year								Third Year			
Key: X = Primary Learning Objective/ Assessed O = Secondary Learning Objective/ Practiced • = Introduced	LAR 510: Design Studio I	LAR 520: Plant Materials	LAR 522: Landscape Analysis	LAR 540: Contemporary Landscape Arch	LAR 554: Site Engineering	LAR 511: Design Studio II	LAR 523: Landscape Ecology	LAR 541: History and Theory of Larch	LAR 555: Landscape Construction	LAR 610: Design Studio III	LAR 526: Planting Design	LAR 570: Intro to GIS for PLG and LAR	LAR 611: Design Studio IV	LAR 596B: Master's Seminar II	LAR 623: Landscape Planning Studio	LAR 560: Professional Practice	LAR 612: Design Studio V	LAR 596C: Masters Seminar III	LAR 596D: Masters Seminar IV	LAR 909/910: MLA Report/Thesis
	History, Theory, & Criticism																			
	a) Contemporary Landscape Architecture																			
	b) History of Landscape Architecture																			
	c) Design Theory																			
	d) Principles and Aesthetics of Design																			
	e) Design Interpretation and Narration																			
	f) Critical Thinking																			
	g) Design Critique and Evaluation																			
	Design & Design Methods																			
a) Creative Problem Solving																				
b) Design Programming																				
c) Landscape and Site Analysis																				
d) Background Research for Design Applications																				
e) Philosophical Concept Development																				
f) Physical Concept Development (functional relationship diagrams)																				
g) Iterative Design Development																				
h) Design Synthesis																				

	First Year								Second Year								Third Year			
Key: X = Primary Learning Objective/ Assessed O = Secondary Learning Objective/ Practiced • = Introduced	LAR 510: Design Studio I	LAR 520: Plant Materials	LAR 522: Landscape Analysis	LAR 540: Contemporary Landscape Arch	LAR 554: Site Engineering	LAR 511: Design Studio II	LAR 523: Landscape Ecology	LAR 541: History and Theory of Larch	LAR 555: Landscape Construction	LAR 610: Design Studio III	LAR 526: Planting Design	LAR 570: Intro to GIS for PLG and LAR	LAR 611: Design Studio IV	LAR 596B: Master's Seminar II	LAR 623: Landscape Planning Studio	LAR 560: Professional Practice	LAR 612: Design Studio V	LAR 596C: Masters Seminar III	LAR 596D: Masters Seminar IV	LAR 909/910: MLA Report/Thesis
	Sustainable Design Strategies & Natural Processes																			
	a) Resource Conservation	•	X	•	O	•	X	•	O	O	O	O	O	•	•	•	•	•	O	O
	b) Stormwater Management	•	X	•	X	•	•	•	O	O	O	O	O	•	•	•	X	•	O	O
	c) Urban Heat Island Mitigation	•	X	•	•	•	•	•	O	O	O	O	O	•	•	•	•	•	•	•
	d) Urban Flooding Mitigation	•	X	•	•	•	•	•	•	O	O	O	O	•	•	•	•	•	•	•
	e) Plant and Ecosystem Science and Design	X	•	•	•	•	•	X	•	•	O	O	•	•	•	•	•	•	•	•
	f) Land Stewardship	•	X	•	•	•	•	O	•	•	O	O	O	•	•	•	•	•	•	•
	g) Visual and Scenic Assessment	•	X	•	•	•	•	•	•	•	O	•	•	•	•	•	•	•	•	•
	h) Landscape Performance Assessment	•	X	•	X	•	•	•	•	O	•	•	•	•	•	O	•	X	•	•
Socio-Cultural Factors in Design																				
a) User Analysis	•	X	•	•	•	O	•	•	•	O	O	O	X	•	•	•	O	O	O	O
b) Cultural Analysis	•	X	•	•	•	O	•	O	•	O	O	O	X	•	•	•	•	O	O	O
c) Community and Client Engagement	O	•	•	•	•	O	•	•	•	O	O	O	X	•	•	X	•	•	•	•
d) Design for Diverse Populations	•	O	•	•	•	•	•	•	•	O	•	•	X	•	•	•	•	•	•	•
e) Post Occupancy Evaluation	•	•	O	•	•	O	•	•	•	•	•	•	•	O	•	•	•	O	O	O
f) Human Health and Well-Being	•	•	•	•	•	•	•	•	•	O	•	•	X	•	•	X	•	•	•	•
Design Implementation																				
a) Site Engineering	•	X	•	•	•	•	•	•	•	O	•	•	X	•	•	X	•	•	•	•

	First Year										Second Year					Third Year				
Key: X = Primary Learning Objective/ Assessed O = Secondary Learning Objective/ Practiced • = Introduced	LAR 510: Design Studio I	LAR 520: Plant Materials	LAR 522: Landscape Analysis	LAR 540: Contemporary Landscape Arch	LAR 554: Site Engineering	LAR 511: Design Studio II	LAR 523: Landscape Ecology	LAR 541: History and Theory of Larch	LAR 555: Landscape Construction	LAR 610: Design Studio III	LAR 526: Planting Design	LAR 570: Intro to GIS for PLG and LAR	LAR 611: Design Studio IV	LAR 596B: Master's Seminar II	LAR 623: Landscape Planning Studio	LAR 560: Professional Practice	LAR 612: Design Studio V	LAR 596C: Masters Seminar III	LAR 596D: Masters Seminar IV	LAR 909/910: MLA Report/Thesis
	X	X							X											
	X	X			O	•			X	O							•		O	O
					X					X	O									
	X		X			O	•			O	O			O			X			
b) Construction Technology																				
c) Site Materials																				
d) Construction Standards, Methods, and Applications																				
e) Codes and Ordinances Related to Public Safety, Health, and Welfare			X		O	•			O	O			O			X		•		
Professional Communication, Documentation, & Technology																				
a) Written Communication*	O	X	X	•	O	O	X	•	O	X		X	X	X	•	X	•	X	X	X
b) Oral Communication*	X	X	X	O	O	O		O	•	X	O	O	X	X	•	X	•	X	X	X
c) Digital Media Graphics*	X	X	X	•	O	X		•		X	O	X	X	O	•		O	O	O	X
d) Hand Drawn Graphics*	O	O	O	O	O	•				X	O		•	O	•	•	•	O	O	O
e) Geospatial Analysis		•	•		•							X	O		X					
f) 2D Representations and 3D Modeling	X	•	•	O	O	X			O	X	O	X	X		O		X			
g) Technical Construction Drawings				X	X				X											
h) Project Proposal Writing													O	O		X		O	O	X
Professional Practice																				
a) Business Practices																X				
b) Interdisciplinary Practice		•								•			X		O	O				
c) Construction Administration																				X

	First Year								Second Year								Third Year			
Key: X = Primary Learning Objective/ Assessed O = Secondary Learning Objective/ Practiced • = Introduced	LAR 510: Design Studio I	LAR 520: Plant Materials	LAR 522: Landscape Analysis	LAR 540: Contemporary Landscape Arch	LAR 554: Site Engineering	LAR 511: Design Studio II	LAR 523: Landscape Ecology	LAR 541: History and Theory of Larch	LAR 555: Landscape Construction	LAR 610: Design Studio III	LAR 526: Planting Design	LAR 570: Intro to GIS for PLG and LAR	LAR 611: Design Studio IV	LAR 596B: Master's Seminar II	LAR 623: Landscape Planning Studio	LAR 560: Professional Practice	LAR 612: Design Studio V	LAR 596C: Masters Seminar III	LAR 596D: Masters Seminar IV	LAR 909/910: MLA Report/Thesis
d) Contracts																				
e) Policies and Regulations																				
f) Health, Safety, Welfare																				
g) Standard of Care, Professional Ethics and Values																				
h) Leadership																				
Research and Scholarly Methods																				
a) Literature Review																				
b) Case Study Review																				
c) Quantitative and Qualitative Methods																				
d) Framing Research Questions, Hypotheses, and Objectives																				
e) Proposal Development																				

*Skill either taught to or utilized by students in the class.

2. **How does the curriculum address the designated subject matter in a sequence that supports its goals and objectives? If the unit offers two degrees or two tracks within its MLA offering (such as a first-professional MLA and a post-professional MLA; referred to by some institutions as MLA-I and an MLA-II), it should identify how they differ and how decisions are made relative to the curricular program of individual students within each track.**

As is the case in most MLA Programs, the School of Landscape Architecture and Planning has essentially four MLA curricula that address the educational needs and requirements of four distinct student cohorts. They are the following (student groups 2-4 receive advanced standing depending on their previous backgrounds):

1. Three-year career-shift students
2. Students with previous allied design professional degrees
3. Students with BSLA or BLA degrees
4. Senior practitioners with substantial professional experience

Curriculum Theory

The MLA Program at the University of Arizona is based on learning theory that examines student development through the typical three-year curriculum.

Table 3.1. Three Forms of Instruction Model (Kowitz, and Smith 1987).¹

Forms of Instruction	Assumptions	Control	Functions of Learning Activities
First	Learner has little, if any, knowledge	Instructor	Acquiring symbols, methods and relationships used in the field of study.
Second	Learner skilled in the basics	Instructor/Learner	Acquisition of useful technical abilities.
Third	Learner skilled in the field	Learner	Seeks leading edge of current knowledge and seeks to go beyond it.

This model relates directly to the Curriculum Concept (see Figure 3.1) that is employed to describe the three year MLA Program. Overall, the curriculum is a *one plus two* design. Although this model creates a heavy course load for first-year students, the goal of the first year is to achieve as close to a BLA/BSLA equivalency as possible. The metric for the first year is whether a student completing this year is able to practice in a professional office under the supervision of a practitioner. The faculty review the *one plus two* aspects of the curriculum annually. See Addendum X.21 for an overview of our curriculum and course sequencing.

¹ Derived from Kowitz, Gerald T., and Jay C. Smith. "Three forms of instruction." *Journal of Educational Technology Systems* 15.4 (1987): 419-429.

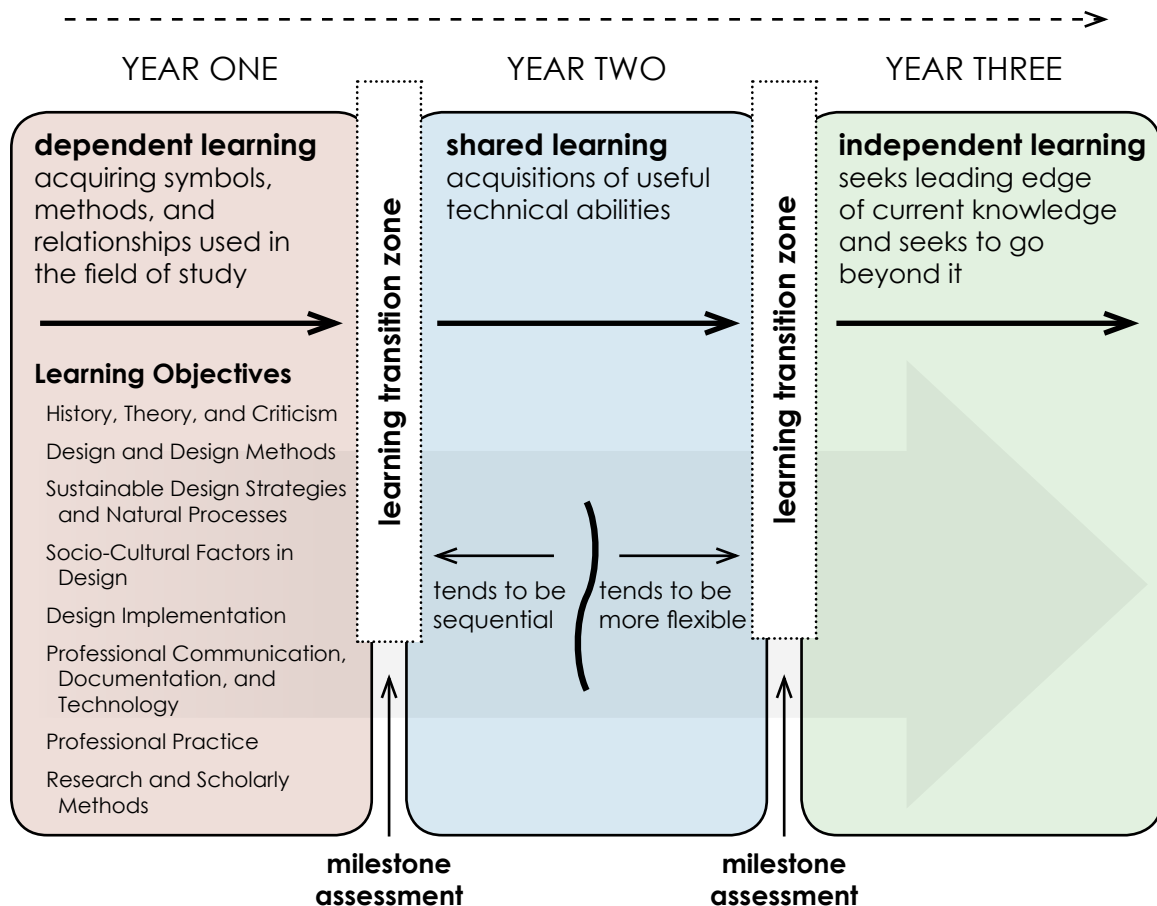


Figure 3.1. Curriculum Concept

The First Year Experience

In the first year of the program, the course structure stresses knowledge, skills, and values (the cognitive, affective, and psycho-motor domains) that have great similarities to the core courses that are evident in an undergraduate curriculum. The first year is course intensive for faculty and students.

By the end of the first year, students have completed the following curriculum:

- Design Studio, two semesters.
- Site Engineering and Landscape Construction, two semesters.
- History and Theory, two semesters.
- Plant Materials, one semester.
- Landscape Analysis, one semester.
- Landscape Ecology, one semester.

The first semester *Design Studio I* (LAR 510) is an introduction to basic design principles and the use of digital technology and hand graphics in design and construction. Five software programs are taught in this studio and reinforced in *Site Engineering* (LAR 554): Autodesk AutoCAD, Adobe Photoshop, Adobe InDesign, Adobe Illustrator, and Google Sketch-Up. The second semester stresses design processes including design programming, inclusion of site analysis data, conceptual design development, site planning and design, introduction to landscape performance

and green infrastructure, and design communication (oral and graphic). At the completion of the first year students should be prepared to:

- Work in a professional office or agency under the supervision of a landscape architect.
- Work collaboratively with advanced standing students (students with BLA or BArch degrees) in the program.

The Second Year Experience

The second year design course sequence continues to reinforce the program's emphasis of sustainable landscape architectural design with the inclusion of artistic aspects of the profession. Thus, the first semester of design in the second year introduces students to inclusion of the fine arts in the creative process along with application of alternate design processes.

Consistent with the MLA Program mission, the second year curriculum begins to introduce the fundamentals of professional scholarship. Research methods are incorporated within *Landscape Architecture Seminar II* (LAR 596B); in this course students are asked to begin to formulate an MLA report/thesis topic.

By the end of the second year, students have completed the following curriculum:

- Design Studio, two semesters.
- Planting Design, one semester.
- GIS and Landscape Planning, two semesters.
- Professional Practice, one semester.
- Landscape Architecture Seminar (which includes research methods), one semester.

Design Studio III (LAR 610) and *Design Studio IV* (LAR 611) begin to introduce comprehensive design problem resolution and involve real community clients. Professional communication is emphasized. Students are required to integrate research and scholarship into design solutions with attention to sustainable design strategies, creative processes, and artistic methods and solutions.

Planting Design (LAR 526) is strategically taught in the fall term of the second year. This allows BArch graduates who have advanced standing the opportunity to first complete the required prerequisite *Plant Materials* (LAR 520) course in their first year of the program. Since the first year of the curriculum includes a heavy course load, placing *Planting Design* during the first half of the second year affords students the opportunity to first become familiar with multiple tools introduced during the first two semesters, including hand drawn and digital graphics, site analysis, design processes including program development, and sustainable design strategies as developed in *Design Studio II* (LAR 511), *Site Engineering* (LAR 554), *Landscape Construction* (LAR 555), and *Landscape Ecology* (LAR 523). Additionally, when students take *Design Studio III* (LAR 610) and *Planting Design* (LAR 526) concurrently, there are opportunities for design and project collaboration and coordination between the two courses.

The two-course Landscape Planning sequence begins in the first semester of the second year with *Introduction to GIS for Planning and Landscape Architecture* (LAR 570). This course is taken by both planning and landscape architecture students. Students learn the basics of landscape planning theory with an emphasis on the technical skills of GIS.

The second course in this sequence is *Landscape Planning Studio* (LAR 623) which is offered in the spring of the second year. This course introduces Geodesign and landscape decision models,

and applies the technological tools of GIS to projects based in real-world locations, introducing students to some of the opportunities and constraints that can affect projects involving real sites and communities. Planning students have the option to take this course if they are in the Environmental Planning concentration of the MS Planning Program.

Although students may take *Professional Practice* (LAR 560) at any time, most students enroll during the spring semester of their second year.

Also in the spring semester is the first of the three *Landscape Architecture Seminar* courses: LAR 596B (second year students), which is co-convened with LAR 596D (third year students). During the final three semesters of the program, second and third year students participate in weekly presentations and critiques of their MLA report/thesis research and scholarship. This allows third year students to receive feedback on their work while second year students become familiar with the MLA report/thesis process.

The Third Year Experience

Third year students are expected to have greater independence in their final studio, *Design Studio V* (LAR 612), and in the development of an MLA report/thesis. Consistent with the growing student independence outlined in our Curriculum Concept (Figure 3.1), during the third year emphasis is on a student's individual MLA report/thesis. It is during this time that we expect our students to demonstrate application of the skills and knowledge they have learned in the first and second years. Led by one instructor through the series of MLA report/thesis seminar courses, all faculty are invited to serve in advisory capacities while allowing students to shape their independent MLA report/thesis projects. Students can work at their own pace, but the *Landscape Architecture Seminar* courses, as discussed previously, require students to develop presentations and advance their work according to predetermined milestones. Two of these seminar courses (LAR 596C and LAR 596D) are taken in their final year of study. These create an opportunity for students to share their research and scholarship with each other and to engage in discussion about emerging topics in the profession. A primary goal is to encourage each student to continue progressing toward their degree completion with a final approved MLA report/thesis. Graduates often regard this aspect of their degree experience as the most challenging and the most fulfilling.

In the third year *Landscape Architecture Seminar* courses, students advance their topics in the fall semester toward final completion in their second semester, where they are required to present literature reviews, design approaches, research methods, case reviews, and outcomes to second-year students and members of the faculty. It is through this exchange, as well as through the guidance of the seminar professor with the support of faculty, that second year students have the opportunity to create a working framework for their independent MLA report/thesis topics. This sequence of seminars provides students with research methods and useful information on formulating a research question, developing hypotheses (if applicable), conducting a literature review, and communicating methods, results, and conclusions. Students are provided with ongoing feedback on their MLA reports/theses. The sequence has proven to be highly successful in guiding and inspiring students and ensuring success toward MLA report/thesis completion and timely graduation.

Advanced Standing Students (students with BArch degrees)

Students with previous design degrees can receive advanced standing for those courses in which they show proficiency. For example, students who have BArch degrees typically start the design sequence in the second year with *Design Studio III* (LAR 610). They are however, required to take several first year courses including *Plant Materials* (LAR 520), *Contemporary Landscape Architecture* (LAR 540), *History and Theory of Landscape Architecture* (LAR 541), *Site Engineering* (LAR 554),

Landscape Construction (LAR 555), and *Landscape Ecology* (LAR 523) as well as all second year courses including *Planting Design* (LAR 526), *Introduction to GIS for Planning and Landscape Architecture* (LAR 570), and *Landscape Planning Studio* (LAR 623).

Advanced Standing Students (students with BLA degrees)

Students with BLA/BSLA degrees are usually qualified for placement into *Design Studio V* (LAR 612); their plans of study would include courses in year one and year two if necessary. For example, returning BLA/BSLA students often have not taken GIS or Landscape Planning courses and in some cases, they require *Landscape Ecology* (LAR 523), or even the technical course sequence *Site Engineering* (LAR 554) and *Landscape Construction* (LAR 555). Plans of Study for these students are crafted to match their unique individual needs. Often they graduate with 30 units (the minimum required by the Graduate College).

Course Curriculum

The curriculum listed below (Table 3.2) is designed for the three-year career-shift cohort. This First Professional Degree Program requires a total of 79 to 88 credit units (see Addenda B.1-B.3 for additional curriculum information).

Table 3.2. First Professional Degree Program/Career-Shift students typical sequence of courses

	Fall	Spring
1st Year	LAR 510 Design Studio I (6)	LAR 511 Design Studio II (6)
	LAR 520 Plant Materials (4)	LAR 523 Landscape Ecology (3)
	LAR 522 Landscape Analysis (3)	
	LAR 540 Contemporary Landscape Architecture (2)	LAR 541 History and Theory of Landscape Arch. (2)
	LAR 554 Site Engineering (4)	LAR 555 Landscape Construction (4)
2nd Year	LAR 610 Design Studio III (6)	LAR 611 Design Studio IV (6)
	LAR 526 Planting Design (4)	LAR 623 Landscape Planning Studio (3)
	LAR 570 Intro to GIS for PLG and LAR (4)	LAR 560 Professional Practice (2)
	Required Elective (3)	LAR 596B Landscape Arch Seminar II (1)
	Optional Elective(s) (3)	
3rd Year	LAR 612 Design Studio V (6)	LAR 596D Landscape Arch Seminar IV (2)
	LAR 596C Landscape Arch Seminar III (2)	LAR 909/910 Master's Report/ Thesis (6-9)
	Optional Elective(s) (3)	

The MLA curriculum emphasizes place-based learning that utilizes the Sonoran Desert to demonstrate sustainable practice. Curricular topics include resource conservation, stormwater management, urban heat island and flooding mitigation, use of native plants, ecological/land stewardship, and landscape performance assessment. The curriculum stresses the systematic organization of public and private outdoor places for human and environmental health, social well-being, preservation of cultural heritage, artistic interpretation, and visual beauty.

All design studios advance students in communication through hand graphics, digital media, writing, and oral presentations. Our mission emphasizes preparing students for practice and scholarship of the discipline, thus we emphasize professional practice in all our courses. We also offer a digital media elective course that most students take in their first year of the program. Students who take *Professional Practice* (LAR 560) develop a working knowledge of the basics of setting up a company, preparing a business plan, and the best practices of professional landscape architecture design work while becoming familiar with the laws and ethics governing landscape architectural design professionals.

Course Sequencing

The MLA first professional degree, at the University of Arizona, has designed the curriculum to include course sequences that form the basis of the MLA student experience. These six sequences include the following areas: 1) design studio sequence, 2) history and theory sequence; 3) landscape implementation sequence; 4) landscape ecology sequence; 5) landscape planning sequence; and 6) design scholarship sequence.

Design Studio Sequence

The first professional degree program requires students to enroll in five sequential design studios: LAR 510, 511, 610, 611 and 612. These studios are coordinated to build upon one another. Students learn incrementally as they advance from fundamental design toward complex advanced design where applied research informs decision making. The first studio is centered on basic design skills, design literacy, and communication tools. In the first two studios (year one) students are instructor-dependent as they are carefully guided in approaches and creative solutions. In contrast to the first year, the last studio requires students to be independent thinkers with well-developed understandings of the nuances of place making. At this point in the curriculum, they are given a high degree of freedom to pursue processes and solutions that demonstrate the abilities they have developed throughout these cumulative studio experiences.



Student work from LAR 610 Fall 2017 and LAR 612 Fall 2016.

LAR 510 *Design Studio I* (fall semester year one)—acquire an initial understanding of basic design principles and elements. Employ digital media and hand graphic communication.

LAR 511 *Design Studio II* (spring semester year one)—develop an understanding of basic landscape architectural design processes and the synthesis of landscape analysis, landscape performance, and landscape ecology. Develop oral and graphic presentation skills.

LAR 610 *Design Studio III* (fall semester year two)—examine alternate design processes and develop a more independent approach to design decision making. Integrate artistic expression with cultural and ecological understanding. Explore ways interpretation and meaning can be instilled in design. Refine strategies for sustainable design in arid environments. Examine case reviews and develop multiple design concepts at both the master planning and site planning levels. Professional communication is emphasized. Outcomes from this semester are expected to garner both student and professional-level recognition at the state-level and beyond. It is in this semester that students with BArch degrees join the sequence. *Planting Design* (LAR 526) (fall semester year two) often

coordinates its final project with this design studio.

LAR 611 *Design Studio IV* (spring semester year two)—undertake complex urban design projects with sophisticated design programs. Integrate research and scholarship with attention to sustainable strategies, particularly in the area of landscape performance while seeking pragmatic and highly creative solutions. Typically, real community outreach projects are employed.

LAR 612 *Design Studio V* (fall semester year three)—demonstrate depth in landscape architectural design. This studio is considered a finishing course where students undertake advanced design projects including international competitions or difficult regional outreach projects such as the Environmental Protection Agency's (EPA) Campus Rainworks Challenge or the landscape plan for the International Peace Garden, which straddles the border between North Dakota (United States) and Manitoba (Canada).

History and Theory Sequence

The History and Theory Sequence includes two courses taught in the MLA Program. The first class in the sequence is *Contemporary Landscape Architecture* (LAR 540) (2 units) and the second is History and Theory of *Landscape Architecture* (LAR 542) (2 units). This seeming reversal of chronologic history is purposeful in that an early exposure to late 20th and 21st century landscape architecture eras, trends, significant built-works, and notable practitioners provides students with the vocabulary necessary for studio design work.

A Case Review of Three Ecological Landscape Designs

1. ALL about humans



Central Wharf Plaza
Reed Hilderbrand

2. MOSTLY about humans



Arizona State University Polytechnic Campus
TentEck Landscape Architects

3. LESS about humans



UC Santa Barbara Lagoon Park
Van Alst Associates, Inc.

Central Wharf Plaza Boston, Massachusetts

Reed Hilderbrand
2008
5 acres
2017 ASLA Honor Award for Design
Highlighted as a Green Infrastructure project on ASLA website

Nothing fancy; just a sure-footed desire to bring trees into downtown.



LAR 540: Contemporary Landscape Architecture | Fall 2017
Mario Nuño-Whelan

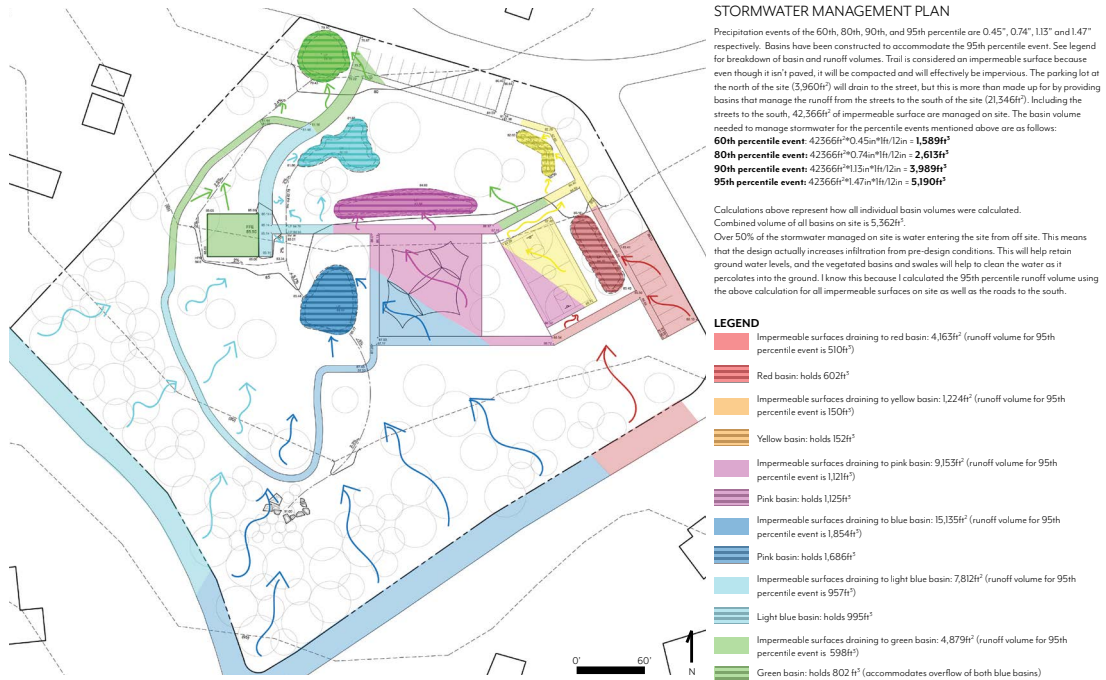
Student work from LAR 540 Fall 2017.

LAR 540 *Contemporary Landscape Architecture* (fall semester year one)—This course examines 20th and 21st century prominent designs that have shaped the profession of landscape architecture. Through case reviews of built works, students explore the evolution of contemporary design ideology and theory in applied landscape architectural practice. Within this platform the course examines current movements and trends toward future scholarship and practice.

LAR 541 *History and Theory of Landscape Architecture* (spring semester year one)—This course examines the history of landscape architecture including the history of gardens and the development of the profession of landscape architecture. Through lectures, readings, case reviews, and projects, the course examines historical built works including significant estates, gardens, urban designs, park systems, corporate landscapes, restored natural sites, heritage sites, waterfront projects, resorts, etc. Students explore the evolution of design ideology and application of theory in the practice of landscape architecture.

Landscape Implementation Sequence

Students enroll in two courses that focus on the theory, skills, and strategies related to implementing their designs. These courses support the Design Studio Sequence and *Planting Design* (LAR 526). This sequence in particular prepares students for licensure.



Student work from LAR 554 Fall 2017.

LAR 554 Site Engineering (fall semester year one)—offers traditional exposure to grading, drainage, horizontal road alignment, and landscape materials and techniques. Students completing this course are able to develop alternate grading concepts and produce a detailed grading plan for a small site that includes the layout and grading of both hard and softscape. Immersion into AutoCAD begins early in the course and hand graphics are introduced as the term progresses. The fundamentals of landscape performance are also included in this as well as in the following course in this sequence.

LAR 555 Landscape Construction (spring semester year one)—students learn design implementation with a specific emphasis on the use of landform to express design ideas and resolve technical design issues. Students create a complete set of construction documents in AutoCAD. Near the end of the term, students design and draft construction details.

Landscape Ecology Sequence

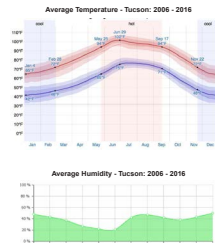
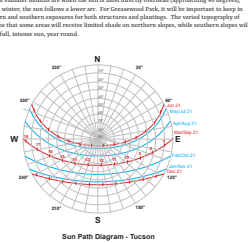
Students enroll in four courses related to describing, assessing, and designing in natural and created ecosystems. These courses are typically taken in the first three semesters of study and provide a valuable foundation for the design studios and landscape planning sequence.

Greasewood Park | The Lower-Sonoran Climate: Temperature & Sunlight

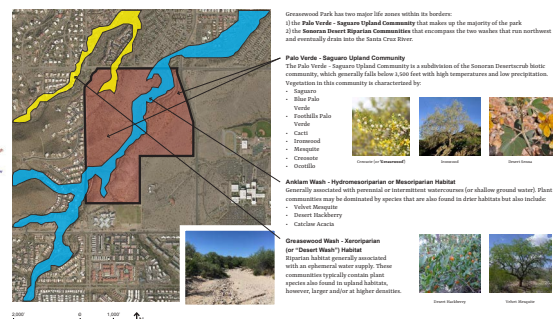
Temperature and Humidity: In Tucson, the summers are scorching, the winters are cool and dry, and it is mostly sunny year-round. Over the course of the year, the temperature typically varies from 43°F to 102°F and is rarely below 34°F or above 107°F. The hot season lasts from May to September, with an average daily high temperature above 94°F. The hottest day of the year is June 26, with an average high of 102°F and high of 112°F. The cool season lasts from November to March, with an average daily high temperature below 75°F. The coldest day of the year is January 6, with an average low of 43°F and high of 63°F.

Humidity and temperature follow nearly inverse arcs throughout the year, with the major exception of monsoon seasons from July to September. That is, when the temperature is highest in June, humidity is at its lowest. And when the temperature is lowest in January, humidity is highest. However, as soon as the summer rains start, humidity spikes and then gradually falls through October.

Sunlight: The summer months are when the sun is most directly overhead (approaching 90 degrees), while during winter, the sun follows a lower arc. For Greasewood Park, it will be important to keep in mind northern and southern exposures for both structures and plantings. The varied topography of the site means that some areas will receive limited shade on northern slopes, while southern slopes will generally be full, intense sun, year-round.



Greasewood Park | Biotic Systems: Vegetation



Student work from LAR 522 Fall 2017.

LAR 520 *Plant Materials* (fall semester year one)—focuses on the examination and evaluation of plants effectively used in landscapes of the Southwest. Emphasis is placed on strategies useful for plant identification and appropriate plant selection for a variety of landscape uses. Field studies are the primary mode of instruction whereas classroom lectures provide support material for the field work.

LAR 522 *Landscape Analysis* (fall semester year one)—focuses on the conventional aspects of site inventory, analysis, and derived implications for design. This course also includes considerations of social factors, and legal and ethical issues.

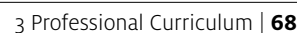
LAR 523 *Landscape Ecology* (spring semester year one)—builds upon the basic biology-related knowledge gained in semester one. This course focuses on principles of landscape ecology, and its application to the assessment and design of systems in urban and semi-natural environments. Students are exposed to case studies, notable researchers and their works, and current and emerging trends.

LAR 526 *Planting Design* (fall semester year two) —is a subsequent course to *Plant Materials* (LAR 520) and *Landscape Ecology* (LAR 523). This course is taught in both a lecture and studio format allowing students to employ knowledge gained in the previous courses. The prerequisites for *Planting Design* are *Plant Materials* and *Design Studio I* (LAR 510).

Landscape Planning Sequence

The MLA Program includes two courses in the landscape planning sequence with three additional elective options in geodesign, land use planning, and environmental spatial analysis offered by the MS Planning Program. Students learn technology tools and theory for use in large-scale master planning. Geodesign is a collaborative field where interdisciplinary methods and technologies are used in geospatial analysis and landscape planning processes. Used as a decision making tool for urban and regional planning, CAPLA, in partnership with government agencies, businesses, and non-profit organizations, addresses complex landscape planning and environmental design issues that face the state of Arizona and the Southwest. Through this emerging field a variety of scientific data are recorded, and analyzed toward comprehensive understanding of relevant and interconnected conditions evaluated at both the landscape and site scales. Through the planning synthesis process geodesign methods

University of Arizona | Self Evaluation Report | 2018



In accordance with the school mission, scholarship is a critical component of the MLA Program. Research methodologies are taught within the highly structured master's report/thesis development seminar courses (LAR 596 B, C, D) that are required in the final three

semesters of the degree.

In addition to the approaches to scholarship as defined by Ernest L. Boyer², Students in the courses present their on-going progress towards their *Master's Report* (LAR 909) or *Thesis* (LAR 910). This sequence affords all students to hear, debate and contribute to each other's work.

As part of *Landscape Architecture Seminar IV* (LAR 596D), the MLA Conference (part of the Graduate Student Expo) is a formal presentation of the current work being conducted by our final year students. All students intending to graduate in the current year present at the conference, which simulates a professional presentation. Guests are invited from the professional community and from across campus.

LAR 596B *Landscape Architecture Seminar II* (spring semester year two)—students study the various approaches used for completing a master's report or thesis in landscape architecture.

LAR 596C *Landscape Architecture Seminar III* (fall semester year three)—incorporates strategies of the research process used by students in their final year of study, providing them with a foundation for organizing and completing their work for the MLA degree.

LAR 596D *Landscape Architecture Seminar IV* (spring semester year three)—provides students with sufficient organization and discussion to encourage formulation of results for completion of their research at the end of the semester.

LAR 909 *Master's Report* (spring semester year three)—Individual study related to master's report.

LAR 910 *Thesis* (spring semester year three)—Individual study related to master's thesis.

3. How do student work and other accomplishments demonstrate that the curriculum is providing students with the appropriate content to enter the profession?

The faculty believes that one ultimate measure of student preparedness is how successful graduates are in the profession. Graduates have generally experienced an employment rate of close to 100%. Over the entire accreditation period, 87% (62) of our 71 graduates found employment in public, private, landscape horticulture/design build, teaching, or pursued advanced studies. It is believed that the data is an effective indicator that the program is meeting its educational objectives and producing highly professional and employable graduates. Recent graduates report that they are well-prepared for positions in landscape architecture firms due to the practical knowledge they receive in the program. See Addendum D.3 for the current place of employment of our graduates.

Further evidence of student competency is found in the number of student awards granted each year (see Addendum X.3 for a complete list). Each year students receive awards such as the MLA Olmsted Scholar, MLA Outstanding Master's Report, MLA Design Excellence Award, ASLA Honor Award, ASLA Student Collaborative Design Award, and Sigma Lambda Alpha Honor Society. See Table 3.4 for a partial list of student awards and distinctions.

² Boyer, Ernest L. *Scholarship reconsidered: Priorities of the professoriate*. Princeton University Press, 3175 Princeton Pike, Lawrenceville, NJ 08648., 1990.

Table 3.4. Examples of Awards Given to MLA Students.

Student	Date	Award
Daniel Zedick; Nate Ritchie; Yuheng Zhang; Fei Yu	2018	ASLA Award of Excellence, Student Collaborative: A River Runs Through It
Daniel Martin; Reza Hamidi; Britain Ogle	2017	ASLA Student Collaborative Design Award
Matthew Lee	2016	MLA Outstanding Master's Report: Arroyo Filtration System
Xin Tan, Baldwin Saer	2016	ASLA Student Collaborative Honor Award
Baldwin Saer	2015	AzASLA Honor Award, Individual: Eco-Campus Design
Katia Gedrath-Smith; Daniel Morgan	2014	AzASLA Student Collaborative Community Service Award: Tumamoc Hill Sykes House Welcome Center and Gardens
Yuxin Wang; Li Lu	2013	AzASLA Student Collaborative Design Award: The Urban-Nature Interface

4. How do the curriculum and other program opportunities enable students to pursue academic interests consistent with institutional requirements and entry into the profession?

Upon graduation, our students will have acquired the basic skills needed for professional practice in landscape architecture. In addition to these basics, the MLA report/thesis gives students the flexibility to pursue specialized academic interests. Students are also highly encouraged to pursue internships and outside work that compliments their academic experience and prepares them for practice.

C. SYLLABI

1. How do syllabi include educational objectives, course content, and the criteria and methods that will be used to evaluate student performance?

All of our faculty are required by the university to include the following elements in a syllabus for a graduate level class:

- The name, title, availability, and contact information of the primary instructor(s) and other members of the instructional team.
- A description of the course content, goals, and objectives.
- A clear and precise description of the workload expectations and course requirements for the class.
- A description of the grading scale and how student work will be evaluated.
- A statement of any special policies for this specific class as determined by the instructor (e.g., attendance, participation, limitations on the use of electronic devices, details regarding academic integrity, etc.).
- A statement on reasonable accommodations provided by the Disability Resource Center, drc.arizona.edu/instructors/syllabus-statement.
- A statement that the work and course requirements are subject to change at the discretion of the instructor with proper notice to the students.

The following elements are recommended but not required for a syllabus for a Graduate Level class:

- A list or schedule of topics or readings, if appropriate.
- A list of links to resources for students

- A list of links to University policies and student rights, responsibilities and accommodations.

For more information see <http://policy.arizona.edu/faculty-affairs-and-academics/course-syllabus-policy-graduate>.

2. How do syllabi identify the various levels of accomplishment students shall achieve to successfully complete the course and advance in the curriculum?

As previously stated, all syllabi contain learning objectives and grading policies. There are abbreviated course syllabi in Addendum B.4 of this report. The full printed copies are available for review at the School of Landscape Architecture and Planning Administrative offices. MLA course syllabi are also available to review and download from the faculty pages located on the CAPLA website (<http://capla.arizona.edu/directory>).

D. CURRICULUM EVALUATION

1. How does the program evaluate how effectively the curriculum is helping students achieve the program's learning objectives in a timely way at the course and curriculum levels?

Faculty regularly evaluate the curriculum and course sequencing to ensure that students will graduate confident in the skills, knowledge, and values needed for professional success. In 2017, the assessment coordinator implemented an annual Learning Outcomes Survey with the graduating class. In the survey, the students self-rate their skills and knowledge on the learning objectives identified by the program (see Standard 4: Student and Program Outcomes), as well as provide feedback on the overall curriculum. The assessment coordinator reports on these findings to the faculty.

In 2018, the assessment coordinator also implemented a Program Feedback Survey for 1st and 2nd year cohorts to provide feedback to the faculty on all aspects of the program, including the curriculum.

Finally, faculty evaluate students on various learning objectives in *Design Studio IV* (LAR 611) using a rubric scoring system (see Standard 4: Student and Program Outcomes).

2. How does the program demonstrate and document ways of:

a. assessing students' achievements of course and program objectives in the length of time to graduation stated by the program?

Our students have a high retention and graduation rate. The second year retention rate is generally 100%, and the graduation rate is as follows:

Table 3.5. MLA Program Retention Rate

Entering Cohort	# enrolled	2nd Year Retention Rate	Graduation Rate within 3 years
2012-13	15	100%	80%
2013-14	12	100%	67%
2014-15	13	100%	85%
2015-16	15	93%	93%
2016-17	15	100%	TBD
2017-18	12	92%	TBD

b. reviewing and improving the effectiveness of instructional methods in curriculum delivery?

The school director has direct responsibility to coordinate and monitor the curriculum. At faculty meetings, the curriculum is regularly discussed and evaluated; any revisions to the curriculum are reviewed at the school and college levels. At the beginning of each year, a college-wide retreat occurs after which the landscape architecture faculty meets to discuss the coordination of courses and the appropriateness of the various offerings.

c. maintaining currency with evolving technologies, methodologies, theories and values of the profession?

The program supports faculty development, particularly conference attendance at national and international meetings such as ASLA, APA, CELA, IFLA, EDRA, NCER³ as well as other events and workshops. These meetings include critical idea exchanges and trainings where faculty can hone their knowledge and skills and engage in the development of new landscape architectural practices and theories as they emerge. Faculty are committed to staying current in the literature as they advance their courses and prepare scholarly papers. In 2015/2016 the program hired tenure-track assistant professors and lecturer/practitioners who are well versed in the latest technologies and software programs. Kelly Cederburg, Kirk Dimond, Bo Yang, Shujuan Li, and Travis Mueller all have highly developed and refined skills in digital media technologies. Shujuan Li, in particular, is well known for her abilities in geospatial design and the emerging field of geodesign.

3. How do students participate in evaluation of the program, courses, and curriculum?

Beginning in 2017, graduating students completed a Learning Outcomes Survey in which they evaluate the program, courses, and curriculum. Beginning in spring 2018, 1st and 2nd year cohorts also complete Program Feedback Surveys in which they evaluate the program, courses, and curriculum.

Individual course evaluations occur in the later weeks of each semester. These anonymous reviews are mandated by the university and any course offered and not evaluated is reported to the school director.

Faculty members receive prompt summaries and typed written student comments (to protect anonymity) early in the following semester. Course reviews become part of a faculty member's annual performance review (APR) and are reviewed by the school director.

E. AUGMENTATION OF FORMAL EDUCATIONAL EXPERIENCE

1. How does the program provide opportunities for students to participate in co-curricular activities, internships, off campus studies, research assistantships, or practicum experiences?

Many studio exercises involve national design competitions and community-based outreach projects that involve citizen groups, native American tribes, non-governmental organizations, developers, and municipalities. These experiences provide students with opportunities to develop long-term relationships with community members through internships and employment for students during their tenure with the school.

³ American Society of Landscape Architects, American Planning Association, Council of Educators in Landscape Architecture, International Federation of Landscape Architects, Environmental Design Research Association, National Conference on Ecosystem Restoration.

Furthermore, the faculty is involved with numerous real-world research projects that are appropriate for student employment within the school. In some cases, faculty members employ students as a GRA. In some instances, these projects involve development of plans that are implemented, allowing students the opportunity to be involved in the implementation of some of their efforts.

2. How does the program identify the objectives and evaluate the effectiveness of these opportunities?

At this time we do not have a formal mechanism in place to evaluate the effectiveness of these opportunities. However, anecdotal evidence indicates that students are highly satisfied with the opportunities they are given, especially internships and GRA opportunities.

3. Do students report on these experiences to their peers? If so, how?

This is a relatively small program, and students from all three years of the MLA Program share a common studio space and learning environment with each other and with students in the architecture and planning programs. Students participate in formal reviews throughout the academic year, which gives them the opportunity to see the diversity of projects undertaken by students across the program.

F. COURSEWORK: (BACHELOR'S LEVEL, *if responding to Standard 3a or 3c, above*)

1. Do students take courses in the humanities, natural sciences, social sciences or other disciplines?

Not applicable.

G. AREAS OF INTEREST: (BACHELOR'S LEVEL, *if responding to Standard 3a or 3c, above*)

1. How does the program provide opportunities for students to pursue independent projects, focused electives, optional studios, certificates, minors, etc.?

2. How does student work incorporate academic experiences reflecting a variety of pursuits beyond the basic curriculum?

Not applicable.

H. RESEARCH/SCHOLARLY METHODS: (MASTER'S LEVEL, *if responding to Standard 3b or 3c, above*)

1. How does the curriculum provide an introduction to research and scholarly methods and their relation to the profession of landscape architecture?

Research and scholarly methods are introduced and practiced in the following required classes (see Curriculum Map, Addendum X.9): *Design Studios I, II, III, IV, and V; Contemporary Landscape Architecture; History and Theory of Landscape Architecture; Professional Practice; Landscape Architecture Seminars III and IV; Intro to GIS; and the Master's Report/Thesis.*

2. How does the program demonstrate that theses or terminal projects exhibit

creative and independent thinking and contain a significant research/scholarly component?

Each student is required to undertake either a master's report or thesis. Most students complete a master's report with a design emphasis. A wide variety of projects are carried out according to student interests. Master's reports are required to have a literature review as well as case reviews and additional background materials such as client and user interviews or surveys. The master's report is intended to prepare students for professional practice and usually includes substantive graphic material to illustrate design concepts and recommendations. Students may also elect to undertake a thesis in accordance with the standards set by the Graduate College. As demonstrated by our list of MLA reports/theses from the most recent two academic years (Table 3.6), students have engaged in a wide range of studies and topics including infrastructure plans, adaptive redesign, recreational hubs, urban agriculture, landscape as art, riparian rehabilitation, climate resilience, urban design, and other topics that advance practice. Students are encouraged to use real clients such as the National Park Service, government agencies, or private entities, thus they work within the conditions of real constraints and real sites. For a complete listing of MLA master's reports/theses see Addendum X.15.

Table 3.6. Master's Reports and Theses, 2017-18

Year	Student	Master's Report/ Thesis Title
2018	Adamowicz, Molly	Tourism, Teaching and Downtown Tucson: A Historical Walking Trail Retrofit
	Bartels, Elliott	Latodami, Environmental Education Center ReEnvisioned
	Cimino, Michael	Activating a Sea of Asphalt: Re-Imagining the Pepsi Center Parking Lots in Denver, Colorado
	Hamidi, Reza	Combinatory Ecotopia in Willamette River
	Hauserman, Samantha	Regional Resilience; Nineteen Vignettes Visualizing Strategic Landscape Infrastructure Interventions for Climate Resilience in the Verde Valley
	Kindler, Brad	Tomorrow's Garden: Uniting Tradition, Technology, Community
	Ore, Brendan	Sentinel Park: A Place to Rest and Grow
	Rioux, Andre	Trails, Tech, & Tiny Towns: Leveraging mobile technology for tourism experiences in Bisbee, Arizona
	Ritchie, Nate	Industrial Ecology: Manufacturing Ecosystem Renewal
	Tuladhar, Rahul	Designing a Conservation Landscape in the Terai Arc Landscape, Nepal
	Webb, Amy	Making Connections: Linking Downtown Tucson with Historic Neighborhoods Through Sustainable Design Strategies
	Yu, Fei	Revisioning "Film" City Park: Guang Zhou, China
	Zedick, Daniel	Transposable Landscapes: Providing the Tools for People-Shaped Spaces
	Zhang, Yuheng (Angel)	A New Neighborhood: Enhancing Green Infrastructure and Diversity in the Shengli Waterfront

Year	Student	Master's Report/ Thesis Title
2017	Bade, Nolan	Tucson Phenology Loop
	Bartels, Elliott	Latodami, Environmental Education Center ReEnvisioned
	Hauserman, Samantha	Regional Resilience; Nineteen Vignettes Visualizing Strategic Landscape Infrastructure Interventions for Climate Resilience in the Verde Valley
	Jehle, Gabrielle	Designing Alternatives for General William Blanchard Golf Course
	Kokroko, Kenneth Joseph	Interstitial Interventions exploring an emergent landscape infrastructure
	Kremer, Austin	Response: Reclaiming Urban Space Through Landscape and Art
	Liu, Yanan	Santa Cruz River Connections: linking neighborhoods and green space
	Martin, Daniel	SEAM an Urban Agriculture District
	Soicof, Alexandra	El Rio Preserve riparian rehabilitation & community recreation
	Tan, Xin	Redefinition of Urban Format Brixton Community Sustainable Regeneration
	Vo, Michael Minh Man	Infill Oasis Repurposing Unutilized Spaces for a Growing Community
	Ogle, Britain August Philip	Jantar Mantar Strategies for Sustainable Cultural Resources Management

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4 STUDENT & PROGRAM OUTCOMES

STANDARD 4: The program shall prepare students to pursue careers in landscape architecture.

INTENT: Students should be prepared – through educational programs, advising, and other academic and professional opportunities – to pursue a career in landscape architecture upon graduation. Students should have demonstrated knowledge and skills in creative problem solving, critical thinking, communications, design, and organization to allow them to enter the profession of landscape architecture.

A. STUDENT LEARNING OUTCOMES

Upon completion of the program, students are qualified to pursue a career in landscape architecture.

1. Does student work demonstrate the competency required for entry-level positions in the profession of landscape architecture?

The faculty believes that one ultimate measure of student preparedness is how successful graduates are in the profession. Graduates have generally experienced an employment rate close to 100%, and report that they are well-prepared for positions in landscape architecture firms due to the practical knowledge they receive in the program. One recent graduate notes:

Once in the workforce, I found that my thorough working knowledge of AutoCAD, Sketchup, and the Adobe Suite put me ahead of many of my colleagues who had recently graduated from other universities. Further, I realized that our program placed heavy importance on teaching hands-on knowledge about planting design, regional plant identification, plant spacing/layout, and site analysis skills seemingly lacking in other programs. Margaret Livingston's [*Plant Materials* and *Planting Design*] classes provide unique and essential skills not taught by other programs. I am also thankful for the freedom the Studio Design courses offered that allowed us to focus developing skills of particular interest. The encouragement from professors to follow my interest in digital modeling/rendering and GIS was a key feature in getting hired.

Over the entire accreditation period, 87% (62) of our 71 graduates found employment in public, private, landscape horticulture/design build, teaching, or pursued advanced studies. Four students pursued fields outside of landscape architecture, and five students' status is unknown (see Addendum D.3). It is believed that this data is an effective indicator that the program is meeting its educational objectives and producing highly professional and employable graduates.

Further evidence of student competency is found in the number of student awards granted each year (see Addendum X.3 for a complete list). Students receive awards such as the *MLA Olmsted Scholar*, *MLA Outstanding Master's Report*, *MLA Design Excellence Awards*, *ASLA Honor and Merit Awards*, *ASLA Student Collaborative Design Award*, *Student Leadership Award*, *Best Colleague Award*, and *Sigma Lambda Alpha Honor Society*.

Several of our students have been recognized through the Olmsted Scholars Program as outstanding students. Recognized scholars since 2013 include:

- **Brad Kindler (2018)** Brad has an interest in heritage agriculture and is actively involved with the Mission Gardens in Tucson. His background on his family farm in Nebraska provides him with a strong foundation for addressing the need for interpreting our agricultural heritage in Tucson. Brad's thesis is *Tomorrow's Garden - Public Process and Creative Design at Mission Garden*.
- **Alexandra Stoicof (2017)** Alexandra has an interest in the preservation of biotic communities and continues to explore the oftentimes challenging interface between the built and natural environments. Her master's report work on the El Rio open space area entitled, *El Rio Preserve Riparian Rehabilitation @ Community Recreation*, enabled Alex to pursue deeper study in this area. She is currently employed by Wheat Design in Tucson and is continuing her work on the El Rio project.
- **Lee Eubank (2016)** Lee's pro bono conceptual design work completed for Wright Elementary School in Tucson helped raise \$30,000 for school grounds improvements. As a student ASLA representative, he organized speakers and volunteer events for landscape architecture students and the college community. He expanded his expertise during his tenure by taking a water harvesting certificate course to learn planning and installation of water cisterns, gray water systems, and passive water harvesting. In addition, Lee worked part-time managing the one-acre campus of the Watershed Management Group. He also co-supervised garden projects for the Good Futures young adult program of Goodwill. Lee's master's report is the *Landscape Master Plan for the Middlebury Institute of International Studies at Monterey*.
- **Kendra Hyson (2015)** Kendra embraced community service projects while a student. Since graduating, she is employed with the Neighborhood Design Center in Washington, D.C. where she applies all her valuable outreach and design skills to community-based projects. Her master's thesis is entitled *Second City: Leveling the Playing Field - An Urban Revitalization Plan for Colon, Panama*.
- **Katia Gedrath-Smith (2014)** Katia's work focused on re-purposing abandoned land uses for more engaging uses to serve current community needs. Her work on the Olympic Park for her master's report, *The 1936 Olympic Village: A Look from the Past into the Future*, highlights some of her creative thinking and design strategies for such spaces. She currently works for GGN in Seattle.
- **Deryn Davidson (2013)** Deryn was president of the student chapter of ASLA and worked as a graduate research assistant on a project related to plant selection around residential water features for various conditions in the U.S. She completed work on interpretation materials for our award-winning department landscape that was featured in Landscape Architecture magazine, including a video related to the sustainable practices in the garden. She also worked at Lady Bird Johnson Wildflower Center and is currently an extension agent in the Denver area where she applies her horticulture and landscape architecture background. Her master's project is entitled *Integrating Biophilic Principles and Therapeutic Design Elements in Outdoor Spaces for Children at Tucson Medical Center*.

2. How does the program assess student work and how does it demonstrate students are competent to obtain entry-level positions in the profession?

Within the curriculum, evaluations of students occur in a number of ways depending on the nature and content of each course. Studio courses focus on design processes, the application of technical skills, and creative design synthesis. Graphic and verbal communications, with respect to design processes and, in particular, design ideation, are heavily weighted. Lecture, research, and master's report or thesis courses evaluate students' abilities through a variety of course outcomes including outside readings, literature reviews, written papers, examinations, and, in

some cases, special design or research projects. In general, the faculty place less emphasis on traditional examinations and favor more applied methods of learning and evaluation. Consistent with the curriculum design models presented in Standard 3, progress through the program begins with instructors guiding students through the introductory material while the second and third year places emphasis on students becoming independent learners. Students are sometimes asked to evaluate their own work as well as the work of their peers, and outside critics are often used to evaluate student work. Each project (studio or research) has a specific set of educational goals and criteria for use in the evaluation of student work.

3. How do students demonstrate their achievement of the program's learning objectives, including critical and creative thinking and their ability to understand, apply and communicate the subject matter of the professional curriculum as evidenced through project definition, problem identification, information collection, analysis, synthesis, conceptualization and implementation?

General categories often used in studio projects include application of background research, knowledge of site constraints and opportunities, functional requirements, concept development, and design innovation and creative thinking. Design studio reviews and formal critiques are often used as a method for reviewing student work. Discussions, group workshops, and individual board-critiques also provide informative review and feedback for the students. General categories often used in the master's report or thesis include introduction, research question, hypotheses (if applicable), literature review, methods, results, and conclusions. Faculty emphasize the substance and depth of content, and the relevancy to the profession of master's reports or theses. The faculty encourages a design component within the master's thesis and a more substantive design application within the master's report. Therefore, evaluation may also reflect consideration for design appropriateness and the students' abilities to apply scholarship in design.

Within the curriculum, students demonstrate their abilities to apply subject matter content for studio and lecture courses within the following content objectives:

- Project Definition
- Problem Identification
- Information Collection
- Analysis
- Synthesis
- Conceptualization
- Implementation
- Representation and Presentation: written, verbal, and graphic

Information Collection and Analysis

Analytical and creative problem-solving occur in the form of studio and research projects. Students are encouraged to readily engage in analytical and imaginative decision-making processes for the design of environments that function appropriately and provide relevance to users. Within studio projects, site inventory and analysis processes engage students in the investigation of existing on- and off-site conditions such as topography, soil, vegetation, drainage, wildlife populations, socio-cultural conditions, building structures, and utilities. Students are also asked to undertake extensive user-group and case study research, interviews, and surveys during analysis. The data is recorded using standard and GIS methods for analysis according to the needs established within the program of the project. In conjunction with analytical methods, critical thinking is developed through class discussions and critiques, evaluations of theoretical designs

and built environments, and research and scholarly writings. This occurs in all of the class delivery approaches; studio, lecture, research, and theory courses. The studio environment is collaborative in nature, with students from all levels participating in one another's juries and critiques as well as informal discussions. It is not unusual for third-year students to participate in an informal review of a first-year student's work.

Synthesis and Conceptualization

The faculty encourages students to develop design and planning principles and guidelines based on site inventory and analysis, and to illustrate how these variables are incorporated into their designs. This process of data collection: site and user analyses, conceptual synthesis, and methods of implementation, must be clearly illustrated in all student work, including in studio design and master's theses and reports. This evidence-based design approach demands accountability throughout the students' decision-making process, and equips them with the skills to navigate professional client interactions, solicit information from various stakeholders and user groups, and develop appropriate design concepts and solutions that are justifiable and ethically responsive to the environmental and socio-cultural conditions inherent in design and planning projects.

The faculty emphasizes the importance of concept development based on initial background research of site conditions and user group needs as well as outside sources of inspiration including artistic or vernacular forms of expression. Design studios emphasize the application of fundamental design principles in the creation of comprehensive site designs across a variety of project types, scopes, scales, and ecological and socio-cultural conditions. Students will typically be asked to prepare alternative concepts, taking one of these through preliminary, schematic, and final design stages. From initial concept development to final design, the entire design process is based on a foundational understanding of site features and ecology, socio-cultural factors, artistic principles, and economic and functional requirements.

Communication of Results

Verbal and graphic presentations and written reports are the primary forms used to communicate design ideas throughout the various stages of design processes. Studio courses require students to develop master plans in the form of composite graphic layouts which combine hand drawings with computer generated graphics. These storyboards communicate site analysis, design methods, and planning treatments. Since the profession relies heavily on digital graphics for the communication of design concepts and solutions, the faculty expects computer literacy in design and oversees the content and graphic layout of student proposals. For example, first-year students are exposed to various programs during *Design Studio I* (LAR 510), to ensure competency in Adobe Photoshop, Illustrator, InDesign, Microsoft PowerPoint, and Google SketchUp, programs which are commonly used in the profession. These programs are used throughout the studio sequence, the MLA report/thesis seminar sequence, as well as other courses. When participating in service outreach projects, students are able to immediately understand how well they have communicated their ideas through direct feedback from community clients. These skills are mastered during the first year studios and are built upon and reinforced throughout the design and planning studio sequence.

Lecture courses also require students to develop both written and digital presentations for communication of research topics and classroom dialogues that aim to stimulate and engage fellow students. These assignments reinforce the course material and instill a greater familiarity with current digital technology in the communication of landscape architectural design as it is utilized in contemporary professional practice.

Implementation

Faculty focus on an integrated approach to teaching, research, and outreach; for example, students work with community groups in the design of spaces using current, relevant research as a basis for design. Thus, the design and development of these environments not only maximizes opportunities for communities but for our graduate students as well. Studio exercises that seek to advance the field of landscape architecture take the form of national and international design competitions and community-based outreach projects that involve citizens, developers, and city officials. Students are often required to solve site planning problems such as circulation, parking, or other programmatic needs as part of the assignments. They also explore innovative ways in which their designed landscapes can educate or inspire community members and advance the profession. Together, students and faculty formulate questions that begin a dialogue about community place-making. We might ask, for example: Can landscapes evoke understanding about the place in which we live, past inhabitants of this place, and regional geology, native wildlife, or plants? Furthermore, how do our actions as faculty teach students to be more responsible in our management of these natural and cultural resources? The Sonoran Desert is often used as a living laboratory for design interventions that respond to the challenges of this rich, arid environment. Additionally, students are encouraged to use principles of design derived from related fields such as the fine arts, geography, natural resources, and environmental engineering. The application of scholarship and professionalism in teaching is demonstrated through the local and national awards received by students and faculty.

It is important to the faculty that students have opportunities to participate in and experience the implementation of actual projects. The faculty are involved in numerous real-world projects that are appropriate as outreach projects within the school. In some instances, these projects are implemented or are in the beginning stages of development, allowing students the opportunity to witness the actual implementation of their collaborative design and planning efforts before graduation. Several of their projects, ranging from small town revitalization master plans in Arizona to courtyard designs and installations within the university, have been built or are now under construction.

4. How does the program assess the preparation of students in the above areas?

In addition to ongoing student assessment in each course, the program directly measures learning outcomes using a Learning Outcomes Rubric scoring system for student work in *Design Studio V* (LAR 612), the final design studio. Scores are based on a three-point scale: where 3=Exceeds requirements; 2=Meets requirements; and 1=Unsatisfactory. For more details on the Learning Outcomes Rubric please see Addendum X16. The following table shows class averages for each year.

Table 4.1. LAR 612 Learning Outcomes Rubric

	Fall 2014 (n=10)	Fall 2015 (n=6)	Fall 2016 (n=6)	Fall 2017 (n=12)
Student Design and Planning Skills and Solutions				
Design Programming	2.3	2.5	2.6	2.6
Design Research	2.4	2.4	2.5	2.4
Design Synthesis and Evaluation	2.5	2.4	2.5	2.5
Student Design Implementation Skills				
Construction Standards and Guidelines	2.3	2.4	2.2	2.5
Construction Concepts and Techniques	2.3	2.5	2.4	2.5

Construction Processes and Performance	2.2	2.5	2.6	2.4
Student Design Communication Skills				
Content	2.1	2.6	2.6	2.6
Organization	2.5	2.3	2.4	2.5
Presentation Delivery and Mechanics	2.5	2.2	2.5	2.8

In all years student work has been assessed as meeting expectations or above.

MLA Learning Outcomes Survey

The MLA Program indirectly measures student proficiency in the core knowledge, skills, and values of the landscape architecture profession by administering an MLA Learning Outcomes Survey to graduating students. The survey (see Addendum x.17) was first administered in spring 2017 (7 respondents) and again in spring 2018 (9 respondents). The following table contains results for both years (note that in 2018 some questions were added, so the total responses for the additional questions are 9 instead of 16).

Table 4.2. Survey Question: Upon graduation, how would you rate your skills and/or knowledge in the following areas?

	Below Average	Average	Good	Excellent	Total
Contemporary landscape architecture	0	3 (19%)	7 (44%)	6 (38%)	16
History of landscape architecture	1 (6%)	3 (19%)	5 (31%)	7 (44%)	16
Principles and aesthetics of design	1 (6%)	2 (12%)	3 (19%)	10 (63%)	16
Design critique and evaluation	1 (6%)	3 (19%)	5 (31%)	7 (44%)	16
Design programming	0	3 (19%)	7 (44%)	6 (38%)	16
Landscape and site analysis	0	3 (19%)	6 (38%)	7 (44%)	16
Concept development: "big picture" themes	1 (6%)	1 (6%)	5 (31%)	9 (56%)	16
Concept development: functional relationship diagrams	1 (6%)	1 (6%)	4 (25%)	10 (63%)	16
Final site design synthesis (the refined layout and placement of spaces, elements, and features)	0	2 (12%)	5 (31%)	9 (56%)	16
Landscape performance assessment	2 (13%)	7 (47%)	2 (13%)	4 (27%)	15
Plant and ecosystem science and design*	0	4 (50%)	2 (25%)	2 (25%)	8
Stormwater management	0	4 (44%)	2 (22%)	3 (33%)	9
Urban heat island mitigation	0	4 (44%)	3 (33%)	2 (22%)	9
User analysis	2 (22%)	3 (33%)	2 (22%)	2 (22%)	9

	Below Average	Average	Good	Excellent	Total
Community and client engagement	4 (44%)	0	2 (22%)	3 (33%)	9
Human health and well-being	2 (22%)	2 (22%)	2 (22%)	3 (33%)	9
Construction materials, standards, and applications	5 (31%)	5 (31%)	2 (12%)	4 (25%)	16
Site engineering	2 (12%)	6 (38%)	3 (19%)	5 (31%)	16
Written communication	0	4 (25%)	3 (19%)	9 (56%)	16
Oral communication	0	3 (19%)	4 (25%)	9 (56%)	16
Digital media graphics	1 (6%)	2 (12%)	4 (25%)	9 (56%)	16
Hand drawing graphics	6 (38%)	4 (25%)	2 (12%)	4 (25%)	16
GIS applications for landscape architecture	1 (6%)	2 (12%)	8 (50%)	5 (31%)	16
Business practices	2 (22%)	2 (22%)	4 (44%)	1 (11%)	9
Standard of care, professional ethics and values	0	5 (56%)	3 (33%)	1 (11%)	9
Quantitative and Qualitative Research Methods	1 (11%)	5 (56%)	2 (22%)	1 (11%)	9
Background research for design applications	1 (6%)	5 (31%)	4 (25%)	6 (38%)	16

The assessment coordinator is responsible for conducting the learning outcomes survey and reporting the results to faculty. These results indicate that students are less confident in the areas of community and client engagement; construction materials, standards, and applications; and hand drawing graphics. In response, a drawing workshop open to all students was conducted by guest lecturer Jim Richards. Travis Mueller has been incorporating hand drawing into *Design Studio I* (LAR 510), and Kelly Cederberg has been incorporating hand drawing into *Design Studio III* (LAR 511). Student concerns for client engagement will be addressed by adding a module taught by Ladd Keith, (MS Planning faculty member), to *Design Studio IV* (LAR 611). Ladd teaches *Public Participation and Dispute Resolution* (PLG 597Q). Student concerns for construction materials, standards, and applications, will be addressed by adding a construction documentation requirement to a project assignment in *Design Studio V* (LAR 612).

B. STUDENT ADVISING

The program provides students with effective advising and mentoring throughout their educational careers.

1. How does the student academic advising and career mentoring function?

Entering students receive academic advising from the director and assigned faculty who also meet with potential students about the school's curriculum. The director and faculty meet regularly with students to discuss educational and career opportunities. In a small program, students are comfortable interacting with full-time faculty and adjunct faculty practitioners in seeking career planning advice. Often, as these faculty members become aware of a student's specific interests, they provide students with valuable contacts through websites and other information that may

open new connections to their research interests and efforts. In general, hands-on advising is an important component to our philosophy of student-centered, active learning and effective, coordinated teaching.

Student-mentoring occurs through formal and informal contact during classes, through master's report or thesis advising, and through research assistantships. In these settings, the faculty strive to convey as much information as possible, with a primary goal of facilitating the acquisition of information for its eventual application in hands-on, creative design thinking. Our school is collaborative in nature, with faculty members sharing information universally as they assist and mentor all students. The program promotes an open door policy as faculty are regularly available for formal and informal meetings with students.

2. How does the program assess the effectiveness of the student advising and mentoring program?

The program experiences a high level of student retention, graduation rates, and professional employment upon graduation. These are positive indicators of success in student advising and mentoring.

In spring 2018 a survey of graduating students found that eight out of nine students were satisfied with faculty advising, and a survey of first and second year students found that thirteen out of fifteen were somewhat or extremely satisfied with the MLA Program overall.

3. Are students effectively advised and mentored regarding academic and career development?

The most significant contribution to student mentoring occurs during master's report/thesis advising. Typically, students are encouraged to start by thinking openly and broadly as they identify seminal works that allow them to focus on a more specific investigation. The teacher-student partnership in the school is rooted in genuine interest and mutual respect. Students are encouraged to seek new innovations as they begin a process of self-directed scholarship and applied research in the field. In addition, students are enrolled in a three-semester seminar, beginning the second semester of the second year, that guides them through the master's report/thesis process, thereby increasing the success of completing their academic work within the intended three years.

4. Are students aware of professional opportunities, licensure, professional development, advanced educational opportunities and continuing education requirements associated with professional practice?

As our program awards a professional degree, the director and faculty consider career counseling to be a high priority. The faculty provides service informally as career counselors in the school, informing students as to various work options that may help them reach their long-term goals. The ASLA Student Chapter organizes an annual Shadow Day where students contact practitioners and spend a day following the daily activities of practice. Students are also informed about the value of professional development through discussions with faculty and outside professionals. Several times during the academic year, formal presentations are conducted by local and out-of-state practitioners that provide information about the type of work they produce and information about licensure.

As students advance through the program, they often seek assistance with more specific

career advice, particularly as they explore professional choices which could include any of the following: academic appointments, private consulting, employment with private sector landscape architectural firms, allied design firms in architecture or engineering, or public sector employment such as positions with the U.S. Forest Service, the National Park Service, or Arizona Department of Transportation. Specifically, the faculty provides information and contacts for local and national private sector firms and public sector departments such as the National Park Service. This aids frequently in student job-related research and placement. When students seek faculty assistance, they often contact firms and agencies directly to match students with appropriate internships and even permanent positions. In the past, students have had internships with regionally recognized firms including: Norris Design, Wheat Design Group, and McGann & Associates; and internationally recognized firms including: Olin Associates, Jones & Jones, SWA, Gustafson Guthrie Nichol, Ten Eyck Landscape Architects, SmithGroupJJR, and Civitas.

The faculty also encourages our graduates to consider advanced educational opportunities. This is reflected in the number of graduates who have successfully pursued advanced degrees beyond the master's level. Several graduates have completed PhD programs. Faculty members encourage and support a diverse group of students whether it is their intent to enter practice or continue graduate studies upon completion of the MLA Program.

In spring 2018, several alumni expressed interest in forming a friends of landscape architecture (name to be determined) organization to assist with student mentoring. They plan to hold regular office hours and assist with professional events, as well as serve as guest lecturers and critics at college events.

5. How satisfied are students with academic experiences and their preparation for the landscape architecture profession?

Learning Outcomes Surveys were conducted with graduating students in spring 2017 and spring 2018, and a Program Feedback Survey with first and second year students in spring 2018 (see Addenda X.17 and X.18). The results indicate that the students are in general satisfied with the program.

From the Learning Outcomes Survey:

Please indicate how you feel about the following statement: "The MLA Program at the University of Arizona has adequately prepared me for practice in the landscape architecture profession." Check from "Strongly agree" to "Strongly disagree."

	%	Count
Strongly agree	31%	5
Somewhat agree	56%	9
Neither agree nor disagree	13%	2
Somewhat disagree	0%	0
Strongly disagree	0%	0
Total	100%	16

From the Program Feedback Survey:

At this point in your education, please rate your level of satisfaction with the MLA Program:

	%	Count
Extremely satisfied	27%	4

Somewhat satisfied	60%	9
Neither satisfied nor dissatisfied	6%	1
Somewhat dissatisfied	6%	1
Extremely dissatisfied	0%	0
Total	100%	15

Students have an opportunity to participate in academic planning and evaluation on a daily basis in the program, and often serve on various school and college committees. Student comments recorded on course evaluations are used constructively to aid in instructional changes, faculty improvements, and course development. All students are invited to openly express their ideas regarding the academic experience they are receiving. Faculty encourages, welcomes, and provides regular opportunities for students to constructively express their evaluation of the program. In spring 2018 the director organized a student focus group comprised of all three years of students. Student comments and concerns centered on creating more outreach and design build opportunities.

C. PARTICIPATION IN EXTRACURRICULAR ACTIVITIES

1. **What opportunities do students have to participate in institutional/college organizations, community initiatives, or other activities? How do students take advantage of these opportunities?**



MLA students work together to build a parklet for Park(ing) Day 2017.

Our students are notably active in numerous extra-curricular activities each year. For example:

- **Annual Books and Brews Event:** The goal of this event is to connect professionals and

students. Professionals make donations of books from their personal collection in order to supply students with an array of materials to use in their study. Each year students have been able to go home with multiple books. In 2017, students were able to take home at least five books each, and the remaining books were added to the material library in our studio.

- **Park(ing) Day:** Every year, student ASLA participates in Park(ing) day, conducting design charrettes, coordinating with the City of Tucson to acquire a metered parking space for the event, soliciting donations from local landscape architecture firms and plant nurseries, and building and installing parklets. They interact with passersby to explain the event, their installation, and the profession of landscape architecture.
- **AzASLA Southern Chapter Luncheons:** The student chapter continuously participates in the Southern Chapter Luncheons which provide educational lessons as well as opportunities for students to interact with professionals.
- **ASLA National Conference:** Every year, students attend the national conferences and the program provides financial support for them to do so.
- **UA College of Architecture, Planning, and Landscape Architecture Homecoming Carnival:** The student chapter helped leaders within the college organize the first Homecoming Carnival at CAPLA. They put together a game booth and participated in the day.
- **Drone Funding:** Students from the student chapter led the effort to write a proposal to the UA Green Fund to obtain funding for a drone. The drone was purchased and is used throughout the MLA, Planning, and Real Estate Development programs. Members of ASLA continue to teach students how to fly the drone and oversee the care of it.
- **AzASLA Awards Gala:** Our students volunteer with the awards gala every year. They are valued volunteers and were asked to volunteer in a larger quantity this year because of the great work they did the year before.
- **Science Olympiad:** The chapter volunteers for the Regional Science Olympiad every year along with a local landscape architect to help with the competition. This provides an opportunity for our students to introduce middle school students to landscape architecture.
- **UA ASLA Shadow Day:** Annually, the student chapter connects with firms in Phoenix and Tucson to participate in Shadow Day. Students choose a participating firm to visit for half of a day where they learn about the firm, are exposed to projects and sometimes project sites, and see the workflow of the firm. Students are able to get an idea of what is happening in the area and see firms that they might be interested working for.
- **CAPLA Career Fair:** ASLA helps to advertise this event and make sure that there are opportunities for students to have a mock interview and portfolio review with landscape architecture professionals.
- **ASLA Student Chapter Meetings:** The student chapter holds meetings and events roughly 2-3 times a month. Events have included: a SITES AP presentation, firm presentations, portfolio design tutorials, internship presentations, and software tutorials.
- **Vectorworks Tutorial Series:** Our student chapter has partnered with Vectorworks for a pilot tutorial series that is geared towards teaching students about the software and how to use it.
- **3rd Floor Outreach Studio Projects:**
 - 2015-16 ASLA Student Members participated in a design-build project for Freedom by Designs. They helped renovate a residential backyard to be ADA accessible for the resident.
 - 2016-17 Buffalo Soldiers Memorial near Quincy Douglas Library included a preliminary plan and culminated in a presentation to the community and Council Member Richard Fimbres.
 - Tumamoc Hill: Students put together drawings and concept landscape improvements for the UA research laboratory.

2. To what degree do students participate in events such as LABash, ASLA Annual Meetings, local ASLA chapter events, and the activities of other professional societies or special interest groups?

The Program Feedback Survey of first and second year students indicates a high degree of participation in outside events. For example, out of the 15 students completing the survey, in the previous year 13 attended a school lecture series presentation, 12 attended a presentation from a professional firm, 12 attended Shadow Day, and 9 attended an ASLA student chapter meeting.

Students are encouraged by faculty to attend these various events, including LABash, ASLA Annual Meeting and EXPO, and local AzASLA chapter luncheons. Students have presented at professional meetings including the CELA and the International Association for Landscape Ecology, and have attended other related-field meetings such as the American Planning Association's National Planning Conference. The students in the MLA Program have a history of being proactive and involved in the landscape architectural and design community. The Design Excellence event was originally initiated by a student and is supported through collaboration with students, faculty, staff, and local practitioners. This event continues to expand, currently involving a week-long showcase featuring student work from the three-year program in the CAPLA's Sundt Gallery.

5 FACULTY

STANDARD 5: The qualifications, academic position, and professional activities and individual development of faculty and instructional personnel shall promote and enhance the academic mission and objectives of the program.

INTENT: The program should have qualified experienced faculty and other instructional personnel to instill the knowledge, skills, and abilities that students will need to pursue a career in landscape architecture. Faculty workloads, compensation, and overall support received for career development contribute to the success of the program.

A. FACULTY CREDENTIALS

1. Is the faculty's balance of professional practice and academic experience appropriate to the program mission?

Full-time faculty in the MLA Program are diverse in their backgrounds, experience, and professional and scholarly interests. They provide a wide range of expertise in landscape architecture and allied fields (art, architecture, planning, natural science), creating an integrative environment in which students are exposed to a broad array of topics that prepare them for practice. Faculty hold degrees in landscape architecture, architecture, planning, urban and regional sciences, geography, fine arts, horticulture, plant sciences, and natural resources. Faculty engage in research and scholarship in fields that include water and natural resource management, geospatial analysis and landscape planning, landscape performance, adaptive reuse of landscapes, arid lands ecology, cultural landscapes, artistic landscapes, landscape interpretation, and sustainable design and development. By the end of the first year of the program, each student has been exposed to all full-time faculty through formal coursework. All faculty serve as advisors for MLA report/thesis committees. Additionally, faculty periodically serve as members on master's committees in architecture, and other disciplines. See Addendum E.5 for a record of faculty accomplishments.

2. Are faculty assignments appropriate to the course content and program mission?

Full-time and adjunct faculty are assigned to teach courses that are within their area of expertise, based on their academic backgrounds, research programs, and professional practice. Faculty typically teach the same course for multiple years to ensure continuity and encourage further development of the course. Many courses include community outreach projects that involve real community clients. Faculty identify projects and work with the stakeholder groups to ensure that student learning experiences meet course learning objectives while also providing benefits for the community. All required courses are designed to meet the program's mission and objectives. See Addenda E.2 and E.3 for additional information on instructional assignments.

3. How are adjunct and/or part-time faculty integrated into the program's administration and curriculum evaluation/development in a coordinated and organized manner?

Adjunct faculty are actively engaged in professional practice in the private and public sectors. They contribute professional knowledge to the program and help to address issues of regional concern. Some adjunct faculty teach undergraduate university General Education courses or courses in the Bachelor of Science in the Sustainable Built Environments Program. Adjunct faculty have occasionally filled in for full-time faculty who were on tenure clock delays due to parental leave. All college and school communications are distributed to adjunct and part-time faculty as well as full-time career track and tenure-track faculty. Adjunct faculty are invited to participate in faculty meetings, serve on school committees, and attend events such as faculty retreats. In specific cases, they may be asked to work on targeted tasks that aid in the development and enrichment of the program. In general, however, participation in school activities outside of teaching is limited to specific tasks that have well-defined time frames. Adjunct and part-time faculty are commonly consulted on curriculum development and participate in discussion regarding the college's and the school's strategic plans.



MLA faculty members Bo Yang, Margaret Livingston, Kelly Cederberg, Lauri Macmillan Johnson, and Kirk Dimond at the CELA Conference in Blacksburg, VA, 2018.

B. FACULTY DEVELOPMENT

1. How are faculty activities – such as scholarly inquiry, research, professional practice and service to the profession, university and community – documented and disseminated through appropriate media, such as journals, professional magazines, community, college and university media?

Career track faculty (lecturers, professors of practice, and research professors) and tenure-line faculty (assistant, associate, and full professors) regardless of contract length or title, must complete an annual performance review. Materials to be submitted by faculty, as part of their annual performance review, include a report from *UA Vitae*, the UA's online reporting system; a current CV; school APR report; and Teacher/Course Evaluations. These reports include all activities (teaching, research, and service). The director provides a summary report on these accomplishments in accordance with school bylaws and the University Handbook for Appointed Personnel (UHAP).

Individual faculty regularly present their teaching, research, and service outcomes, both nationally and internationally through various venues including professional and academic conferences, peer-reviewed publications, and through design competitions. Faculty are also recognized by receiving state and national design awards. The college and school's marketing team and the school program coordinator regularly communicate faculty accomplishments including publications, awards, and other recognitions through the CAPLA website, Facebook page, Instagram accounts, and school, college, and university news communications. Faculty accomplishments in teaching, research and scholarly work, and community engagement of local or regional significance are regularly disseminated through the University's *UA News*, UA media press releases, the local public news program, *Arizona Illustrated*, the UA student paper, and local newspapers.

2. How do faculty teaching and administrative assignments allow sufficient opportunity to pursue advancement and professional development? Are faculty duties, work load, and opportunities similar to other faculty in related disciplines or academic units?

Typical assignments for full-time tenured or tenure-track faculty are: teaching (45-60%), research/scholarship/creative work (20-40%), and service/community engagement (10-20%). This is similar to other landscape architecture programs nationally, and to CAPLA's Architecture Program. Teaching includes formal course assignments, service on MLA report/theses committees, advising and mentoring, independent studies, new course development, student recruitment and retention, and in some cases, job placement for recent alumni. The defined expectation of teaching percentage is calculated at .10 FTE per 3-unit course. For example, those who teach 2 3-unit courses in the fall and spring semesters (4 3-unit courses total) would have an annual teaching load of 40% (.40 FTE). Landscape architecture faculty often teach 9 units one semester and 6 units in the second semester for a teaching percentage of 50%, (.50 FTE). Faculty are given additional credit for new course development (2.5%), report/thesis advising (1% for each student), and independent studies (1% for each student with 3 units).

The higher percentages in teaching are for full professors who have declared teaching as their area of focus. Junior faculty teaching percentages are deliberately kept below 50%, with service assignments less than 10%, allowing for research percentages of 40% or more. This provides adequate time for research productivity. Additionally, junior faculty are given course releases

prior to tenure.

3. How are the development and teaching effectiveness of faculty and instructional personnel systematically evaluated?

Students evaluate faculty each semester through the Teacher/Course Evaluation (TCE) process. Students complete an online form for each course and answer a series of questions related to the course content and instruction. These evaluations are used in the Annual Performance Review process, described below. Faculty teaching effectiveness is also evaluated according to the guidelines set forth in UHAP which requires a teaching portfolio in the third year and tenure review process.

The University of Arizona's Office of Instruction and Assessment also offers a guide for Peer Review of Teaching that can be used for annual reviews and promotion and tenure. Using the protocol, faculty members agree on which classroom observation tools will be used. Reviewers schedule a pre-observation meeting to determine the instructor's goals and learning outcomes for the course, and a post-observation meeting to discuss what aspects of the course are going well and where there is room for improvement. This leads to a report and dialogue between the instructor, reviewer, and director regarding teaching effectiveness. For more information on the Peer Review of Teaching Protocol, see <https://teachingprotocol.oia.arizona.edu/>.

4. How are the results of these evaluations used for individual and program improvement?

All full and part-time faculty (career track and tenure line faculty) are reviewed by the director once every 12 months through the Annual Performance Review (APR) process. Every annual review of teaching consists of peer and student input, including student evaluations of faculty classroom performance in all classes, and other expressions of teaching performance. As part of the annual performance evaluation process, typically conducted in the spring semester, faculty are required to complete a self-evaluation report that responds to the goals established in the Distribution of Effort Assignment (DOE). The purpose of the APR according to the UHAP, June 2017 is as follows:

- to involve faculty members in the design and evaluation of objectives and goals of their academic programs and in the identification of the performance expectations central to their own personal and professional growth;
- to assess actual performance and accomplishments in the areas of teaching, research, and professional service through the use of peer review;
- to promote the effectiveness of faculty members through an articulation of the types of contributions they might make that enhance the University;
- to provide a written record of faculty performance to support personnel decisions;
- to recognize and maximize the special talents, capabilities, and achievements of faculty members;
- to correct unsatisfactory ratings in one or more areas of responsibility through specific improvement plans designed to correct the deficiencies in a timely manner;
- to fulfill ABOR-PM 6-201(H) post-tenure review for tenured faculty members; and
- to fulfill ABOR-PM 6-201(D)(4) and (D)(5) review for renewal requirements for career-track faculty members with multiple-year appointments (such as assistant, associate, or full clinical or research professors; assistant, associate, or full professors of practice; and other such titles approved by the Provost).

5. How do faculty seek and make effective use of available funding for conference attendance, equipment and technical support, etc.?

Tenure line faculty who were hired from 2014-present have received startup packages of \$50,000. The startup funding that is provided to incoming faculty (1/3 from the Office of the Provost, 1/3 from the college, 1/3 from the program) supports professional development: e.g., travel, conference costs, research assistants, and technology support. Once startup funds are spent, program funding for research activities can also be provided, although faculty are encouraged to seek external funding to support research costs. A proposal for faculty research incentives that will distribute some portion of the Indirect Cost Distribution that is returned to the college back to Principal Investigators and co-Principal Investigators for further research support has been conceptually approved by the dean and directors.

Additional funding is provided for all teaching faculty to support instructional needs. This includes funds for teaching assistants, field trips, classroom materials, teaching computers and software, and instructional training. Faculty are also encouraged to develop funded research programs and sponsored or service contracts that pay for Graduate Research Assistants, equipment, and travel costs. Faculty are encouraged to participate in design competitions that have monetary awards. In special cases, a faculty member's research work might require a reassignment of the individual's DOE. In these cases, the grant or project budget typically pays for the percentage of the faculty's time that is reassigned to the project.

6. How are the activities of faculty reviewed and recognized by faculty peers?

Under the tenure and promotion process described in the UHAP and the program Promotion and Tenure Guidelines, tenure-track assistant professors are reviewed every year through the APR process, with a formal mid-tenure review during the third year. The faculty member's mid-tenure package is reviewed by the College Faculty Status Committee, director, and dean, and does not advance to the university or provost levels. This evaluation identifies any problem areas which may preclude the granting of tenure.

Before the end of the third year in rank, assistant professors shall be informed in writing by the director that they are being recommended for: (a) reappointment as assistant professor (this does not necessarily preclude consideration for promotion effective the sixth year, nor does it preclude possible non-retention at the end of the sixth year); or (b) non-renewal at the expiration of the subsequent year of service in rank.

Before the end of the sixth year in rank, assistant professors shall be informed in writing by the director and dean that they are being recommended for: (a) promotion to the rank of associate professor with tenure; or (b) appointment as assistant professor for a seventh and terminal year. Prior to this, assistant professors must prepare and submit a complete package describing their achievements in teaching, research/scholarship/creative activities, and service. The UHAP describes the requirements for the package and for the review process. These packages are reviewed at all levels—College Standing Advisory Committee on Faculty Status, school director, college dean, University Advisory Committee on Promotion and Tenure, and university provost.

Expectations for faculty scholarship are reflected in the UHAP and School of Landscape Architecture and Planning Bylaws (March 2017) which include specific Promotion and Tenure Guidelines for landscape architecture faculty.

In addition to formal reviews, our faculty have also been recognized by their peers through

nominations and the receipt of various awards. Awards received include: Ron Stolz 2013 *Fellow* (ASLA); Director Lauri Macmillan Johnson 2014 *Educator of the Year Award* (AzASLA), CELA Fellow 2017; Margaret Livingston 2013 *Educator of the Year Award* (AzASLA), the 2014 *Darryl B. Dobras Award for Excellence* (CAPLA), and the 2018 *Excellence in Teaching Award, Senior Level* (CELA); Bo Yang 2018 *President's Award* (CELA); and Kirk Dimond 2018 *Educator of the Year Award* (AzASLA).

7. How do faculty participate in university and professional service, student advising and other activities that enhance the effectiveness of the program?

CAPLA's mission includes the advancement of the college, university, community, and the profession through service and outreach. As such, each faculty member is expected to contribute significantly through leadership, professional skills, and experience to the appropriate school, college, university, professional, local, state, national, or international community. Faculty are expected to not only serve on committees, task forces, etc., but to assume leadership roles appropriate to faculty rank in important efforts as part of their service on such bodies.

All faculty participate in the university governance regularly, although the time devoted to this varies with individual assignments. Faculty serve on a variety of university committees such as the Faculty Senate, the University Hearing Board, and the Committee on Conciliation, as well as several college and school level committees that include the College Curriculum Committee; the CAPLA Design Thinking Task Force, the CAPLA Culture Task Force; the International Programs Task Force; the Doctoral Programs Task Force; the Curriculum Innovation (Undergraduate) Task Force; the Curriculum Innovation (Graduate) Task Force; the Teaching, Research and Partnerships/Community Working Groups; the CAPLA Strategic Planning and Operations Advisory Committee (SPOAC); the West Building Master Plan Committee, and the Website Working Group.

Faculty also serve on faculty and staff hiring committees. See Addendum X.19 for a complete list of service activities performed by our current faculty.

Faculty members are currently active on local, regional, and national committees of Arizona Forward, CELA, ASLA, the Arizona Community Forest Council, and the Tucson Botanical Gardens. All faculty members engage in service for local communities and non-profit organizations.

Faculty are expected to assist in advising students in partnership with the school's graduate advisor and the director. Faculty also are expected to engage students in professional scholarship. To this end, faculty mentor students in graduate MLA Reports/Theses, funded research and outreach reports, independent studies, and studios.

C. FACULTY RETENTION

1. Are faculty salaries, academic and professional recognition evaluated to promote faculty retention and productivity? Are they comparable to related disciplines within the institution?

Faculty salaries are competitive with those for similar positions nationwide at land grant universities of a similar size. Salaries and benefits are also attractive relative to the cost of living in the region. Faculty startup packages are higher than the national average for landscape architecture programs. Faculty receive excellent medical, dental, vision, and life insurance coverage for themselves and their families at competitive rates. Required participation in a retirement plan gives faculty members a choice of options that can be tailored to fit the individual's needs.

The college administration recognizes high performance and professional success in a number of ways. Faculty who have shown strong performance have been awarded merit raises at the director's advice and dean's discretion. Additional support for success is shown by nominating faculty for awards or other types of national recognition.

2. What is the rate of faculty turnover?

Faculty composition had been relatively stable for many years, before the planned retirements of three senior faculty members in 2015: Professors Ronald R. Stoltz, Mark Frederickson, and Senior Lecturer Oscar Blasquez. Faculty members hired to replace them include: Assistant Professors Kirk Dimond and Kelly Cederberg who were hired in 2015 and Associate Professors Bo Yang and Shujuan Li who were hired in 2017. Assistant Lecturer Gina Chorover was hired in 2016. Adjunct lecturers hired in 2015 include Helen Walthier, Jennifer Patton and Charles Anderson. Adjunct Lecturer Travis Mueller was hired in 2016. Assistant Professor Philip Stoker was hired with a joint appointment in planning and landscape architecture in January 2016; his appointment currently resides in the Planning Program but he is affiliated with the MLA Program. Lecturer Eduardo Guerrero was hired in 2017 as faculty who supports integrated studies. See Addendum E.1 for a list of previous and current faculty.

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6 OUTREACH TO THE INSTITUTION, COMMUNITIES, ALUMNI, & PRACTITIONERS

STANDARD 6: The program shall have a plan and a record of achievement for interacting with the professional community, its alumni, the institution, community, and the public at large.

INTENT: The program should establish an effective relationship with the institution, communities, alumni, practitioners and the public at large in order to provide a source of service learning opportunities for students, scholarly development for faculty, and professional guidance and financial support. Documentation and dissemination of successful outreach efforts should enhance the image of the program and educate its constituencies regarding the program and the profession of landscape architecture.

A. INTERACTION WITH THE INSTITUTION AND PUBLIC

The program represents and advocates for the profession by interacting with the professional community, the institution, community and the public at large.

1. How are service-learning activities incorporated into the curriculum?

One distinctive characteristic of the program is the integration of our curriculum with our faculty outreach and research agenda. Faculty are deeply committed to community service. It is understood that this academic paradigm is a bit unusual, but effective in combining research, teaching, and service into well-integrated professional development activities for both our students and faculty. The students benefit from being afforded real-world professional development experience in an apprenticeship-like environment. The faculty is able to explore research issues directly relevant to the profession. And, the university is able to interact with and give back to the communities that help support it.



Students in LAR 526 visit the site of a new open space development for a class project. They later presented their designs to residents at the Ward 3 office in Tucson.

Studio work in the program often addresses the needs of the community through real-world projects that have a wide range of objectives, scopes, and scales. These projects allow students and faculty to interact with a variety of clients, including other departments within the university community as well as local, regional, national, and international groups. The focus on non-hypothetical projects raises community consciousness about the program, the profession in general, and its role in the community.

Beyond serving the community, these projects significantly contribute to the experiences and education of students. In return, students tend to be more keenly motivated by design and planning problems that they perceive to have real value. Addressing existing problems encourages students to recognize and address economic and political realities, thereby more effectively preparing them for their role in the profession. Community-relevant projects also help develop personal and professional confidence through interaction with clients (and often with practicing professionals). In addition, relationships are established that facilitate employment and future studio project opportunities.

Some examples of service learning projects over the accreditation period include the following (see Addendum X.10 for full list):

Fall 2018 - Design Studio III (LAR 610). Ironhorse Neighborhood Park

The 2nd year landscape architecture students worked with the Iron Horse Neighborhood Association and the City of Tucson to reimagine the Ironhorse Neighborhood Park. As the population of downtown continues to grow, especially near the corner of 4th Ave. and Congress, the neighborhood sees this park and the adjacent vacant parcels as an opportunity to provide an important recreational space for those living and working downtown. The students focused on placemaking as an important component of the design, presenting their final projects to neighborhood residents during a public meeting in the middle of the semester. Their designs will be used by the City to help them in future redevelopment of the area.

Fall 2018 - Design Studio III (LAR 610). Rio Reimagined 2018 Ideas Competition

Students in *Design Studio II* participated in The Rio Reimagined 2018 Ideas Competition. As described in the competition prompt, “the aim ... is to summon and celebrate revelatory observation and big imaginative ideas, which through preservation, landforms and built environment interventions with an emphasis on place making, strengthen the connection between the eight communities that directly share the Rio Salado.”

Two student teams from the class submitted entries to the competition, and one received First Place in the Student Category. The winning design featured improved site circulation and ecology, and a pedestrian bridge featuring a series of circular overlooks above the river. The competition was sponsored by the AIA Phoenix Metro Chapter along with ULI Arizona and Arizona Forward.

Fall 2018 - Design Studio V (LAR 612). USEPA’s Campus RainWorks Challenge Design Competition

Bo’s *Design Studio V* class again participated in the EPA’s Campus RainWorks Challenge. The projects were also presented to a jury of local landscape architecture practitioners who awarded the Liba Wheat Prize to one student team. The Prize was established to recognize a student or group of student’s whose work supports the values inherent in the late Liba Wheat’s work: community improvement, innovation in design; and transformation of public spaces.

Spring 2018 - *Design Studio II* (LAR 511). Oracle Road Commercial Development, Tucson, Arizona

Students in *Design Studio II* (LAR 511) worked on repurposing a vacant 5.5 acre site along Oracle Road, Tucson. The project was based in part on a study conducted by the Drachman Institute for the Coronado Heights Neighborhood, which encompasses the project site. The students considered the needs of neighborhood residents and the surrounding community, developing designs that serve multiple user groups. The final designs included siting for small locally owned businesses, a dog park, a desert garden, and a large playing field. Demonstration areas showcasing low-impact development strategies are featured in designated areas on the site.

Spring 2018 - *Design Studio II* (LAR 511). STAR Academic High School, South Tucson, Arizona

A group of researchers at the University of Arizona (UA) in partnership with local organizations are studying existing environmental justice issues in and around STAR Academic High School in South Tucson. As part of a larger project, students in *Design Studio II* visited STAR to assess issues related to the urban heat island effect and flooding. Working with STAR students and staff as well as other UA students from the SBE program and from other programs across campus, the MLA students developed a set of green infrastructure design solutions. The final design captured input from the school community and included passive and active water harvesting systems, a composting area, a chicken coop, composting toilets, a parking lot shaded by solar panels, a monarch butterfly garden, and a vegetable garden. Also included were outdoor classrooms, an amphitheater, art elements, and plenty of seating and shade.

The project funded one GRA from Landscape Architecture, employed two SBE students on paid internships, and four students who led teams. There were around 80 volunteers who participated during the implementation event.

The final studio project was submitted to the National ASLA Student Awards Program in spring 2018. The school covered the full cost of the submission, including registration and student ASLA membership fees, further demonstrating the school's strong support and commitment to student success.

This ongoing project is a collaborative effort with the Udall Center for Studies in Public Policy, and the School of Geography & Development at the University of Arizona. Other project partners include the Watershed Management Group, the grassroots organization *Tierra y Libertad*, the Sonoran Institute, and STAR Academic High School. This project is funded by the Agnese Nelms Haury Program in Environment and Social Justice and the University of Arizona Green Fund.

Spring 2018 - *Design Studio IV* (LAR 611). THRIVE05, Oracle Area Neighborhood Revitalization, Tucson, Arizona

This community project was based in the Oracle area of Tucson, a neighborhood struggling with the challenges of poverty, crime, and an historic built environment in need of revitalization. Working in conjunction with a student team from ASU's School of Social Work, students in the studio conducted windshield surveys and background research to identify community assets and needs in an effort to create a master plan for the area. Residents in the area lack access to safe, high quality outdoor public space and have few opportunities for community gatherings and events. Although the population relies heavily on public transit, the students have concluded that the neighborhood is lacking decent supportive infrastructure such as complete streets that provide quality access to public transportation.

The team developed design typologies for specific landscape types in the areas: vacant lots, alleyways, neighborhood streets, and washes. They also developed neighborhood identity and

wayfinding elements as well as designs for community gardens and pop-up market spaces. Their goal was to create a master plan for the area which can then be implemented by the community as funding becomes available.

Fall 2017 - *Design Studio III* (LAR 610). City of Nogales, Arizona and Nogales, Mexico Children's Museum and Park.

In conjunction with a non-profit group formed by a donor and local residents, students in *Design Studio III* developed designs to convert a defunct golf course and club house in Nogales, AZ into a Children's Museum, public park, and protected wetland. The project site lies 4 miles north of the US/Mexico border, and is meant to serve the citizens of both Nogales, AZ and Nogales, Sonora, Mexico. The final design includes connections between the critical wildlife habitat at Las Lagunas de Anza Wetlands, which lies immediately northwest of the project site.

Fall 2017 - *Design Studio V* (LAR 612). University of Arizona Campus Plan for Green Infrastructure

In response to the USEPA's Campus RainWorks Challenge Design Competition RFP, students in *Design Studio V* worked in teams to identify areas on the University of Arizona's campus that could benefit from green infrastructure interventions. Beginning with the goal of improving stormwater performance on campus, their designs also included other environmental, social, and economic improvements.

This was a collaborative effort between the landscape architecture students and undergraduate and graduate students from the Department of Soil, Water and Environmental Science (SWES). The MLA students presented their work periodically to SWES students and also received input and suggestions from the University of Arizona Campus Planner, the Campus Landscape Architect, local practitioners, and other faculty members in the School and other colleges/units, including the Campus Arboretum.

Four projects were produced in LAR 511 class: Project 1. *A River Runs Through It*; Project 2. *Rejuvenation: Reviving Connections, Resources, and Spaces*; Project 3. *Conduit Connections*; and Project 4. *The West University Wash Revival*.

Two of these projects, *A River Runs Through It* and *The West University Wash Revival*, received Honorable Mentions from the EPA in the Demonstration Project Category and in the Master Plan Category, respectively, out of a total of six national awards that the EPA bestows each year.

Fall 2016 - *Design Studio V* (LAR 612). International Peace Garden, located on the Border Crossing between Canada and the United States, in the state of North Dakota and the province of Manitoba.

The 3.65-square-mile (9.5 km²) park site features breathtakingly beautiful views, existing gardens, and several monuments. In this real-world project coordinated by practitioners who were the actual landscape architectural consultants, students were challenged to develop revisions and improvements to the Garden.

During a three-day site visit, students attended meetings and met stakeholders, including board members and maintenance staff. They developed schemes and presented their ideas for a landscape enhancement plan that included a number of proposed elements including an international center for peace, a new lodge, circulation and parking, outdoor spaces, and a replacement for the focal Peace Tower. Student teams presented their concepts to the Director of the International Peace Garden and other members of the on-site team. The student's designs came a fortuitous time as their suggested improvements are being considered by the Garden staff

as plans evolve over the next several years.

Fall 2015 - *Planting Design* (LAR 526) Valley of the Moon Landscape Plan

Students developed a plan for water harvesting and conservation demonstration, including gathering spaces and shade structures, ADA pathways, and arid plants demonstration garden for the Valley of the Moon, a non-profit arts and community center in Tucson which was built by George Leglar in the 1920s. In their designs, the students took into consideration the site's historic and present use as a children's fantasy park, as well as the unique vernacular art and construction techniques present at the site. The Valley of the Moon is listed on the National Register of Historic Places.

2. How are service activities documented on a regular basis?

Faculty document service activities in their annual performance review documents, submitted each January, and also in the *UA Vitae* system. In addition, the director uses bimonthly faculty meetings as a forum for discussing outreach projects and opportunities and these are documented in the meeting minutes. The school also has a program coordinator that collects the information, which is kept in school records and disseminated via the website, the CAPLA Connections newsletter, and social media.

3. How does the program interact with the institution and the public, aside from service learning?

Faculty are involved in numerous activities that demonstrate their commitment to professional engagement and service (See Addendum X.19 for full list). At the institutional level, they serve on committees such as the Diversity and Inclusion Committee (K. Cederberg), the Connect2STEM CAPLA Recruitment Planning Committee (K. Dimond), the Faculty Advisory Committee (M. Livingston), Faculty Senate (L. Johnson), and CAPLA Strategic Planning and Operations Advisory Committee (SPOAC) (M. Livingston, B. Yang). Margaret Livingston serves as the CAPLA Facilities Manager for the Underwood Family Sonoran Landscape Laboratory. Her responsibilities include providing tours to the UA community and visitors, and coordinating maintenance and reviewing care practices with non-university professionals and university staff. Bo Yang serves on the university's Campus Landscape Review Committee. Some of his recent contributions include co-developing online surveys to UA faculty, staff, and students to capture their perspectives of the campus environment, how to best tackle the grand challenges that we face in the 21st century, and how the UA can best position itself.

Faculty are also actively engaged with the public in activities other than service learning projects. Faculty give public lectures, organize and attend conferences, and maintain memberships with professional organizations.

For example, Bo Yang was part of the conference organization committee for The Tongji Forum on Ecological Wisdom Inspired Urban and Rural Ecological Practice. The conference was held at South China Agricultural University, Guangzhou, China, July 8-10, 2018. Bo worked with colleagues from South China Agricultural University and Tongji University. He also served on the organizing committee for the 2nd Mountain Landscape Architecture Symposium, held June 22-23, 2018 in Guiyang, China. The theme was *Colorful Parks in Guizhou*.

Margaret Livingston is frequently asked to give public lectures. For example, in fall 2017 she presented to the Tucson Unified School District on sustainable practices in urban green space.

Kirk Dimond is serving as CELA Region 2 Director, 2018-2021, and has given a number of

conference presentations. Lauri Macmillan Johnson served as CELA Region 2 Director from 2002-2005, and again from 2014-2017. Bo Yang served as the CELA Vice President for Research and Creative Scholarship from 2016-2018.

As documented in Standard 4, our students are also extremely active in the community. Here is a brief list of a few of their outreach activities:

- **Park(ing) Day:** Every year, student ASLA participates in Park(ing) day, conducting design charrettes, coordinating with the City of Tucson to acquire a metered parking space for the event, soliciting donations from local landscape architecture firms and plant nurseries, and building and installing parklets. They interact with passersby to explain the event, their installation, and the profession of landscape architecture.
- **Science Olympiad:** The chapter volunteers for the Regional Science Olympiad every year with a local landscape architect to help with the competition. This provides an opportunity for our students to introduce middle schoolers to landscape architecture.
- **3rd Floor Studio Outreach Projects:**
 - 2015-2016
 - Student ASLA members participated in the UA chapter of AIAS Freedom by Design's design-build project. They helped renovate a residential backyard to be ADA accessible for the resident.
 - 2016-2017
 - Buffalo Soldiers Memorial near Quincy Douglas Library, which included a preliminary plan and culminated into a community meeting to present the idea at Tucson City Council member Richard Frimbres' office.
 - Tumamoc Hill: Students put together record drawings and helped to concept landscape improvements for the UA research laboratory.

4. How does the program assess its effectiveness in interacting with the institution and the public?

At this time, there are no formal mechanisms in place to measure our effectiveness in interacting with the institution and the public. However, awards, testimonials from stakeholders, and implemented and built projects all point to the importance of our faculty and student outreach.

B. INTERACTION WITH THE PROFESSION, ALUMNI AND PRACTITIONERS

1. How does the program recognize professional organizations, alumni, and practitioners as resources?

The program has historically maintained a strong relationship with alumni and practitioners, particularly those practicing in the Tucson and Phoenix areas. For example, practitioners have been employed by the school as part-time lecturers in such courses as *Landscape Analysis* (LAR 522) and *Design Studio I* (LAR 510), *Site Engineering* (LAR 554), and *Landscape Construction* (LAR 555). State and community leaders and practitioners also support the program through the provision of studio projects and reference materials.

The professional community is regularly invited to school and college events such as guest lectures and exhibitions. The Southern Section of the Arizona Chapter of ASLA regularly has a luncheon at the Tucson Botanical Gardens to which students and faculty, as well as public and private practitioners are invited. Faculty members are occasionally invited to deliver presentations at these events; for example, Bo Yang presented his work on landscape performance during the

September 2018 luncheon. In addition, each spring the MLA students host Design Excellence, an event that allows the professional community and others to view the best examples of student projects. See Addendum E.4 for a list of visiting lecturers/critics.

The ASLA Student Chapter regularly invites practitioners for lunch-time brown bag events where a short informative presentation is followed by questions and discussion. In addition, the ASLA Student Chapter organizes Shadow Day where students can spend a day with a local practitioner and “shadow” them in their everyday activities.

The school has a formal lecture series that invites approximately four guests per semester. Of the four guests per term, usually two are invited by the Landscape Architecture Program.

Field trips are also regularly taken to visit offices, projects, and exhibits of related professionals in the Southwest. Each January/February a one-week study trip is taken by students in the first year *Design Studio II* (LAR 511) class. Students and one or two faculty members travel to Los Angeles, Orange County, and San Diego to visit important built works and professional offices. These experiences encourage discussion and strengthen relationships between students, faculty, and other professionals, and provide undeniably rich student experiences.

The University of Arizona Alumni Association takes great pride in saluting alumni and friends of the University of Arizona for their professional achievement, humanitarian and public service, advocacy for education, distinguished volunteerism and service to students, the colleges and the University of Arizona. Every year as a part of the UA’s homecoming weekend, CAPLA recognizes an Alumnus of the Year during an evening alumni reception held at the college. The ceremony affords CAPLA the opportunity to honor, highlight, and profile accomplished alumni during the festive Homecoming weekend. The award allows the college to increase alumni engagement, enhance outreach and support development. It is intended to recognize an alumnus/alumna who has achieved the following: a) bestowed honor or recognition on the college and/or b) made significant contributions of time or resources to further the college’s mission.

Irene Ogata, a 1986 graduate of the University of Arizona’s Bachelor of Landscape Architecture program, received the 2018 University of Arizona Alumni Association and CAPLA Alumnus of the Year award. As the Urban Landscape Manager for the City of Tucson for the past 13 years, she has been instrumental in developing and implementing low-impact development policies such as Tucson’s Water Harvesting Ordinance, which creates a more sustainable and resilient future for the city and its residents. Irene holds degrees in both Landscape Architecture and Planning from the University of Arizona, and her passion and expertise in the areas of urban heat island mitigation, water harvesting, and human environments have shaped Tucson’s physical environment and regulatory policy for more than a decade.

In 2013, a 1985 graduate of the Bachelor of Landscape Architecture program, Lawrence Frank, PhD, AICP, CIP, ASLA, was the award recipient. He is currently a Professor and Bombardier Chair in Transport & Public Health at the University of British Columbia, Vancouver. For more than 20 years, Dr. Frank has been studying the effects of neighborhood walkability on travel patterns and sustainability, and has authored two eminent books on these topics: *Health and Community Design: The Impacts of The Built Environment on Physical Activity* and *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*.

2. Does the program maintain a current registry of alumni that includes information pertaining to current employment, professional activity, postgraduate study, and significant professional accomplishments?

To the best of our ability, the program maintains a current registry of alumni with their pertinent information. We send them the CAPLA Connections newsletter and other program information. With the hiring of a program coordinator, we have been using the website and social media to share stories of alumni successes. In 2018, an interested alumnus and our graduate coordinator began steps to form a Landscape Architecture Network (LAN), modeled after the Friends of Planning. The group plans to hold regular office hours at CAPLA and meet with landscape architecture students to mentor and promote research and networking opportunities.

3. Does the program use the alumni registry to interact with alumni?

Yes. The school director, faculty, staff, and the college's Director of Alumni and Community Engagement maintain an alumni contact list. We use the list for various reasons. For example, we recently reached out to several alumni from a range of graduation years to request letters of support for our nomination of Margaret Livingston for the 2018 *CELA Excellence in Teaching Award (Senior Level)*. We also routinely reach out to alumni to invite them to school and college events and to be guest lecturers and critics.

Strengthening our ties to our alumni and developing a stronger professional network is among our goals for the future. In 2018 CAPLA created a new position – Director of Alumni Relations and Community Engagement that will provide additional support to this effort. The Director of Alumni Relations and Community Engagement will be part of the newly created college Advancement Team, which is comprised of the Director of Development, the Director of Alumni Relations and Community Engagement, the Executive Director of the Drachman Institute, the existing Development and Alumni Relations Coordinator, and the College Marketing and Communications team. The primary goal of the team is to build CAPLA's network of alumni, friends and partners in both the public and private sector in order to raise the college's profile and value in the community. The team will also be focused on developing the donation pipeline (including non-alumni philanthropists, business and industry) while improving relationships with alumni and our community.

4. How does the program engage alumni, practitioners, allied professionals and friends in activities such as a formal advisory board, student career advising, potential employment, curriculum review and development, fund raising, continuing education, etc?

The Arizona Chapter of ASLA is extremely generous in support of the MLA Program. They regularly supply travel monies to students wishing to attend the ASLA Annual Meeting and EXPO, LABash, and to defray the cost of attending the annual AzASLA Awards GALA in Phoenix.

The newly emerging LAN group will provide a valuable resource for student career advising and potential employment.

The CAPLA Career Fair is an annual event that is well attended by students and professionals from around the country. Faculty and staff reach out to a wide network of professional alumni from the MLA Program and invite them to attend the event to connect with current students, to talk about the work they do, conduct mock interviews and portfolio reviews, and make connections for possible future employment.

In spring 2017, CAPLA alum Eric M. Scharf, Principal of Wheat Design Group, made an endowment gift agreement with The University of Arizona Foundation to establish the Elizabeth “Liba” Wheat Memorial Prize Endowment (the “Fund”). The purpose of the Fund is to support the School of Landscape Architecture and Planning in CAPLA. This Fund is established to support student work that embodies the values inherent in Elizabeth (“Liba”) Wheat’s professional work. These values are: 1) community improvement; 2) innovation in design; and 3) transformation of public spaces.

Every year, the Fund will recognize a student or group of students whose work demonstrates these values in projects during their second or third year in the Master of Landscape Architecture program. At the end of the fall 2017 semester, the first “Liba” Prize was bestowed to one of the design teams in *Design Studio V* (LAR 612). Student teams created green infrastructure design proposals for the University’s main campus with quantified/forecasted performance benefits and climate change resilience in stormwater. The final projects were entered into the 2017 U.S. EPA Campus RainWorks Challenge Competition, and two of the four projects from the class received honorable mentions from the EPA.

5. How does the program assess its effectiveness in engaging alumni and practitioners?

Currently, we do not have a formal mechanism to assess the effectiveness of our engagement with alumni and practitioners. As LAN becomes more established, we intend to incorporate questions in our Program Feedback Survey to get student feedback on their interactions with alumni and practitioners.

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7 FACILITIES, EQUIPMENT, & TECHNOLOGY

STANDARD 7: Faculty, students and staff shall have access to facilities, equipment, library and other technologies necessary for achieving the program’s mission and objectives.

INTENT: The program should occupy space in designated, code-compliant facilities that support the achievement of program mission and objectives. Students, faculty, and staff should have the required tools and facilities to enable achievement of the program mission and objectives.

A. FACILITIES



CAPLA East and CAPLA West buildings as seen from the north side of Speedway Boulevard.

The MLA Program, together with other units of CAPLA, is housed in two buildings: CAPLA West and CAPLA East. The older CAPLA West building was constructed in 1965, expanded in 1970, and expanded again in 1979. This three-story structure once had an open atrium that is now enclosed called the T.M. Sundt Design Gallery (Sundt Gallery). The Gallery provides 2,800 square feet of multi-functional space that is used for conferences, exhibitions, events, and studio critiques. The space is available for use by other UA units on campus as well as community organizations.

Other facilities housed in the CAPLA West building include the Dean’s Administration Suite, Robinette Conference Room, Dinsmore Conference Room, Student and Alumni Center (SAAC), computer laboratories, several classrooms, faculty and staff offices, and student architectural studios. Additionally, there is a 90-seat lecture hall (Arch 103) that is equipped with audio/visual digital media capabilities, including large screen computer projection and laptop connection at every seat.

In 2001, the Arizona Board of Regents approved a \$7 million building addition in order to place programs in architecture, planning, and landscape architecture together. In addition, the University devoted approximately \$3 million toward renovation costs for the original (CAPLA West) building. The combined total of the new and renovated buildings brought the space allocation to an average of 60 square feet per student (see Addenda F.1 for more information).

As part of our ongoing commitment to diversity and inclusion, the third floor West building houses a gender-neutral bathroom.



Students and faculty in the Sundt Gallery during a presentation and critique.

1. How are faculty, staff, and administration provided with appropriate office space?

All faculty members have offices located on the 3rd floor in either CAPLA East or CAPLA West. With the exception of the school Assessment Coordinator, staff have desks and computer stations located in the School of Landscape Architecture and Planning main office on the third floor, outside the Director's office. The Assessment Coordinator has a separate office in CAPLA West. The Director, faculty and staff office spaces are equipped with contemporary desks and bookcases, two chairs, a file cabinet, phone, and Ethernet connections. Each faculty member has a computer purchased by the MLA Program. Faculty members typically receive new computers every four to five years. Other office equipment used by faculty and administrators is located in the main office and includes copy/printer/scanner, and fax machine.

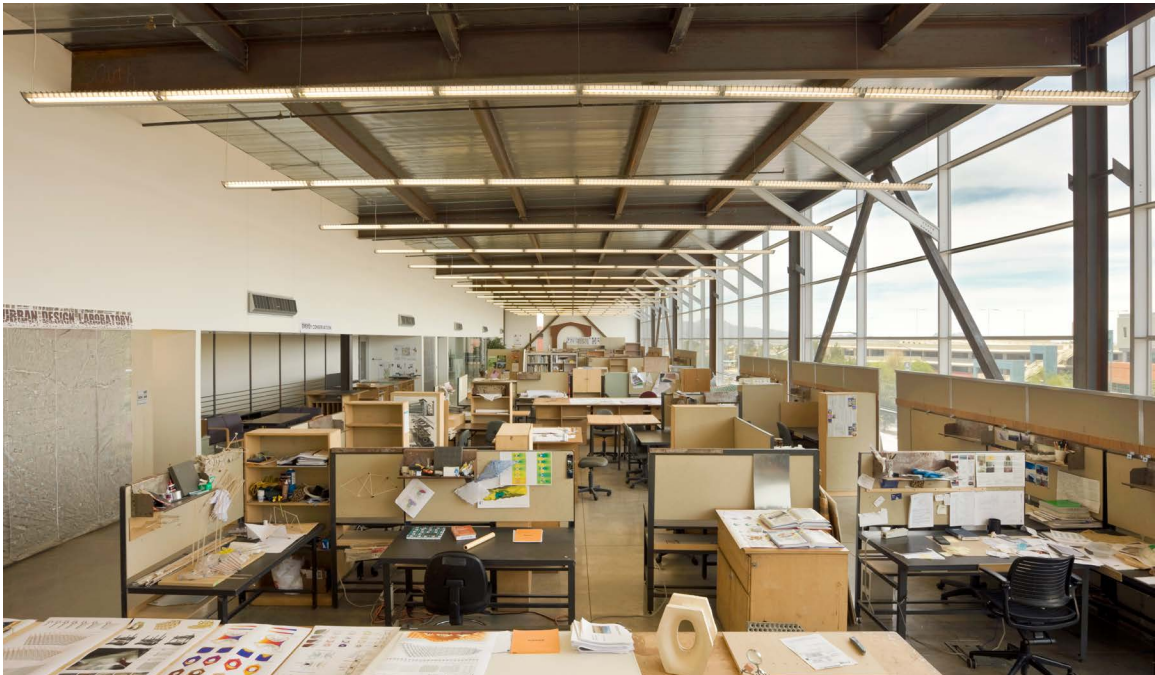
2. How are students assigned permanent studio workstations adequate to meet the program needs?

Studio Space

Our program occupies roughly one third of the space on the third floor of CAPLA East; the MLA Program shares the floor with planning and architecture graduate programs. Presently, each student is provided a permanent workstation and locked storage. Each student workstation has electrical outlets and access to wireless internet connection via the UA WiFi system. Faculty encourage students to work in the studio and not at home, in order to promote an atmosphere of collaborative learning where students can share ideas and information and learn from one another. Students are encouraged to work in the studio both independently and in groups during and outside of class time.

The studio space includes a designated printing and computer area appointed with up-to-

date equipment and software that can process a large amount of data necessary for GIS and GeoDesign programs. Adjacent to the studio are three classrooms for seminars, lectures, studio reviews, and other presentations. These rooms are equipped with smart boards, computers and projection equipment.



View of the third floor studio space, facing west. Photo - Robert Reck

The Materials Lab

The \$9.3 million building expansion of CAPLA East features a 9,000 square-foot state-of-the-art materials lab with material testing, assembly, and digital fabrication that facilitates design/build courses and research in material science. This is one of the largest architectural materials labs in the nation. Within the materials lab are three Universal Laser Systems: solid state laser cutters useful for etching patterns or cutting virtually any 2-dimensional shape from a wide variety of thin materials such as acrylic, chipboard, wood veneer, and thin plywood. There is an array of professional quality equipment accommodating a wide variety of materials including woods, metals, concrete, ceramics, glass, plastics, CNC tools and digital fabrication. The labs are open to all CAPLA students and faculty during the fall and spring semesters from 8 am to 10 pm, seven days a week, depending on monitor availability.



Materials Lab on the ground floor of the CAPLA East building.

Underwood Family Sonoran Landscape Laboratory

The development of an addition to the CAPLA Building afforded the opportunity to design and construct a demonstration landscape that is a high performance integration of the building and site. This award-winning sustainable design lab, the Underwood Family Sonoran Landscape Laboratory, serves as an active research facility featuring five biomes of the Sonoran Desert as well as active and passive water collection and harvesting systems. The project employs arid land sustainable design principles of water harvesting, water re-use, mitigation of desert microclimates, and reduction and re-direction of runoff while creating an interpretative desert oasis. At the center of the space is a sunken gathering area that serves as an outdoor classroom and gathering space for critiques, poster presentations, and other events, while functioning as an additional water catchment and infiltration basin during a significant rainfall.



Underwood Family Sonoran Landscape Laboratory. *Photo - Bill Timmerman*

Smith and Cannon-Douglass Houses

In addition to the CAPLA West and East buildings, the University provides the College with two buildings on the National Register of Historic Places—the Smith and Cannon-Douglass Houses—which are located on the north side of Speedway Boulevard across from the CAPLA building. These houses are used for classrooms for the Graduate Certificate in Heritage Conservation program; faculty offices and GRA workspace; and research space for the Institute for Place and Wellbeing and the National Institute for Transportation and Communities.



Smith House (left, built 1904) and the Cannon-Douglass House (right, built 1906).

3. How are facilities maintained to meet the needs of the program?

UA Facilities Management, including custodial services, maintains our buildings. The CAPLA East building has a full time custodian who provides housekeeping services throughout the day.

CAPLA IT support staff keep all computers and equipment upgraded and in working order.

4. Are facilities in compliance with ADA, life-safety, and applicable building codes?

All our facilities are in compliance with ADA standards for accessible design. When needed, student work stations are equipped with the right height desks for students in wheelchairs. The studio space is in compliance with Fire Marshal requirements; adequate unobstructed access is provided throughout all locations.

5. If known deficiencies exist, what steps is the institution taking to correct the situation? (Provide documentation on reasonable accommodation from the institution's ADA compliance office and/or facilities or risk management office.)

No known deficiencies exist.

B. INFORMATION SYSTEMS AND TECHNICAL EQUIPMENT AND FACILITIES

1. How does the program ensure that students and faculty have sufficient access to computer equipment and software, workshops, wetlabs and work yards, as appropriate?

The MLA students are not provided with their own personal computers, but have 24/7 access to computers at CAPLA and on the larger campus. Students use the Adobe Creative Suites package (includes Photoshop, Illustrator, InDesign and Acrobat for their computers). This package is available to students free of charge through the UA Bookstore. In addition, students are able to download free student versions of ArcGIS, AutoCAD, and Microsoft Office. Other software like Sketchup and Rhino are available at discounted student rates. Students also use Desire to Learn (D2L, online learning network) for downloading readings and submitting work for classes.

The Graduate Studio Computer Center/GeoDesign Lab (available 24/7 to students) has computers that are connected to the CAPLA printing system that can output color and monochrome letter, 11x17, and 36" wide plots. CAPLA software available in the lab includes:

- Adobe Creative Cloud Design Package
- Adobe Acrobat X Pro
- ArcGIS 10.3
- Autodesk AutoCAD 2017
- Autodesk 3ds Max 2017
- Autodesk Revit 2017
- Energy-10 Version 1.8
- eQUEST 3-65
- Firefox
- Google Chrome
- Google Earth
- IESVE 2017
- Lumion 5.7.2

- Monolith
- Processing (Java Program)
- Rhinoceros 5
 - RhinoCAM 2016 for Rhino 5.0
 - Grasshopper, Honeybee, Ladybug and many more plugins
- SketchUp 2017
- V-Ray for Rhino
- VLC

Faculty each has a desktop/laptop computer in their offices and access to the Internet via wire and/or wireless connections. Virtual Private Network (VPN) connections are used for any work done off-campus. The faculty get their computers renewed based on need and budget available.

2. What are the program's policies on the maintenance, updating, and replacement of computer hardware and software and other technical tools such as GPS, drones, water-sampling kits, cameras, as appropriate?

The maintenance of the hardware and the management of the software for the computers is done by the College IT team. Software is installed at faculty request and is updated over the summer to the latest version of the programs available. Faculty also have access to the NetSupport software that lets them remotely view student work to help them during class. While the university has a 5 year upgrade process for staff computers, hardware in the labs are being continuously updated to work with increasing software requirements.

The college also has a variety of equipment for students that include VR and GPS equipment, drones and environmental mapping supplies, photo labs, and modelling tools. Equipment is purchased based on faculty courses, grants, and requests from students. The college is always looking at ways to keep our students and their education on the cutting edge of technology.

3. What are the hours that the computer lab and workshops (if applicable), and studios are open to students / faculty?

The MLA students have access to two computer labs in the College:

- The Graduate Studio Computer Center/GeoDesign Lab. The School provides and maintains computer peripherals and support materials that students need to accomplish their work while in the program. The space includes: color plotters, color and black and white laser printers, scanners and extra computers specifically for GIS and GeoDesign. Printing and plotting on the third floor studio is paid for by the students and is restricted to graduate students only. The center is open 24/7 to our students via their student NetID and password. Security of our facilities is highly enforced due to the number of students working in the studio at all hours of the day.
- The Frank Mascia Computer Classroom (Architecture 205) is a 29-seat classroom that has software installed at the direction of faculty to fit their instructional needs; this includes Adobe Creative Cloud Design Package, AutoDesk 2017, SketchUp 2017, ArcGIS 10.3, among others. Classroom management software is also installed to provide instructors additional tools for the classroom.

University-wide 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) and 24/7 Help Desk, 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. The OSCR also runs the Gear-to-Go Center, which offers free loan of digital cameras, digital videocameras, 3D cameras, microphones, audio recorders, lights, and tripods for University of Arizona students, faculty, and staff for any course-related, not-for-profit purpose.

4. How does the program determine if these times are sufficient to serve the needs of the program?

The Graduate Studio Computer Center/GeoDesign Lab is available 24/7, as well as other labs on campus.

5. How does the program assess the adequacy of equipment needed to achieve its mission and objectives?

CAPLA IT staff ensure that hardware in the labs are being continuously updated to work with increasing software requirements. The college is always looking at ways to keep our students and their education on the cutting edge of technology and orders new equipment as deemed necessary.

C. LIBRARY RESOURCES

1. What traditional and digital library resources are available to students, faculty, and staff?

The UA Library system contains more than 7,000,000 items including books, periodicals, microforms, maps, government publications, manuscripts, and digital media. Basic holdings cover all fields of instruction, and there are especially strong collections in anthropology, geology, arid lands, Spanish and Latin American language and literature, American agriculture, Southwestern Americana, Arizoniana, 20th century photography, history of science, science fiction, and 18th and 19th century British and American literature.

The University of Arizona has five traditional campus libraries for student and faculty use. Each library offers study spaces, research materials, and technology.

Main UA Library

The Main Library houses reference materials for business, fine arts, architecture, government documents, humanities, and social sciences. Students can conduct research on available computers, or, using a student ID, they can borrow laptops, tablets, cameras, scanners, and other audio/visual equipment. In-depth reference on most research projects can be obtained from a subject specialist by appointment. Faculty and teaching assistants can place class materials on reserve for students to check out. Main library hours for UA students and faculty are 24 hours except for holidays and weekends.

Science-Engineering Library

The MLA Program has a large collection of books that have been reconsolidated at the Science-Engineering Library as well as at the Fine Arts Library on campus at the University of Arizona. The Science-Engineering Library houses all materials on science and technology; it holds more

than 500,000 volumes, 1,500,000 microforms, and displays current issues of its 4,000-plus periodicals. Students are encouraged to visit the library and are allowed to check out books for use. The Science-Engineering Library is open to the public daily, most often from 7 a.m. to 9 p.m., with the exception of weekends and holidays.

Fine Arts Library

Located across from the College of Architecture, Planning and Landscape Architecture, the Fine Arts library houses a music collection including scores and sheet music, as well as a collection of plays and films and architecture materials. The Fine Arts Library is open daily from 8:30 a.m. to 8:00 p.m., with the exception of weekends and holidays.

Health Sciences Library

The Health Sciences Library offers the latest research on health and quality of life. The Health Sciences Library is open from 7:00 a.m. to 7:00 p.m. daily.

Special Collections

Special Collections is located in the Main Library and houses the Library's collections of Arizona and Southwestern Americana, special subject collections, rare books, fine printing, manuscripts, and The University of Arizona archives. Special Collections is available Monday – Friday, 9:00-6:00.

In addition to the five libraries listed, students also have access to the Center for Creative Photography, a world-class archive and research center devoted to photography as an art form. The research center features nearly 150 photographer's archives; for example, Ansel Adam's collection, including personal papers, negatives, contact sheets, and artifacts, which are available to researchers by appointment. In addition to 20,000 books, the Library has more than 80 current periodicals and 500 videotapes. The Library also has a rare book room that has monographs that are of interest across disciplines. The Center is open Tuesday through Saturday, variable hours.

In addition to traditional resources, the University library system also offers a complete digital library. Students have access to online journals articles, ebooks, maps, and much more.

2. How does the program determine if the library collections are adequate to meet its needs?

The University of Arizona library system is outstanding and offers thousands of resources to our faculty and students. The university also provides the college with its own library liaison who is available to assist in reviewing the library collection and ordering new materials when needed, and is able to assist faculty with any concerns or special needs they may have.

3. How do instructional courses integrate the library and other resources?

All program courses rely upon and utilize library resources on a continuing basis. Students use the UA Library system to explore and execute specific design, planning, and research projects. Their investigations take many forms and include background research for studio projects, critical writing assignments for lecture courses, and individualized research for independent study, research assistantships, and theses and master's reports.

4. What are the hours that library is open to students and faculty?

Students have physical access to the UA libraries 24 hours per day five days a week and 23 hours per day on Friday and Saturday, and virtual access from the computers at CAPLA and/or from

their own computers at home. They can use the University Libraries Summon program to search for online journal articles, ebooks, newspapers, maps, etc. They can also borrow books and materials from other libraries through interlibrary loan.

5. How does the program determine if these hours are convenient and adequate to serve the needs of faculty and students?

Students have 24/7 access.

6. How does the program assess its library resources?

Each faculty member has their own library requirements/needs based on the classes that they teach. The university provides the college with their own library liaison who is available to assist faculty in reviewing the library collection, to order new materials when needed, and who can educate them about research tools and new available technologies.