

The Pennsylvania State University
Department of Architecture

Master of Architecture Program Report for 2019 NAAB Visit for Continuing Accreditation

Master of Architecture: 97 Credits

Year of the Previous Visit: 2016
Current Term of Accreditation:

“At the February 2017 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the *Visiting Team Report for Initial Accreditation* (VTR-IA) for Pennsylvania State University.

On behalf of the board, it gives me great pleasure to inform you that the professional program the **Master of Architecture** was formally granted a three-year term of initial accreditation. The accreditation term is effective January 1, 2016. The program is scheduled for its next accreditation visit in 2019.”

Submitted to: The National Architectural Accrediting Board
Date: July 15, 2018

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Table of Contents

<u>Section</u>	<u>Page</u>
Section 1. Program Description	6
I.1.1 History and Mission	6
I.1.2 Learning Culture	10
I.1.3 Social Equity	12
I.1.4 Defining Perspectives	16
I.1.5 Long-Range Planning	23
I.1.6 Assessment	27
Section 2. Progress since the Previous Visit	31
Program Response to Conditions Not Met	31
Program Response to Causes of Concern	
Program Response to Change in Conditions (if applicable)	
Section 3. Compliance with the Conditions for Accreditation	33
I.2.1 Human Resources and Human Resource Development	33
I.2.2 Physical Resources	51
I.2.3 Financial Resources	65
I.2.4 Information Resources	67
I.2.5 Administrative Structure & Governance	72
II.1.1 Student Performance Criteria	80
II.2.1 Institutional Accreditation	86
II.2.2 Professional Degrees and Curriculum	89
II.3 Evaluation of Preparatory Education	92
II.4 Public Information	92
III.1.1 Annual Statistical Reports	95
III.1.2 Interim Progress Reports	99
Section 4. Supplemental Material	101

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Section 1. Program Description

I.1.1 History and Mission

The Pennsylvania State University (Penn State) is strategically located in the geographic center of the Commonwealth of Pennsylvania, and is a state-related institution with an attractive, expansive campus environment. The University offers a broad range of academic programs and is a major worldwide research facility.

Institution

The Pennsylvania Legislature chartered the institution as The Farmers High School in 1855. In May 1862, it was renamed The Agricultural College of Pennsylvania and on April 1, 1863, the State Legislature designated Penn State as the Land-Grant College of the Commonwealth. In 1874, it was renamed The Pennsylvania State College, the name it was known by for the next 79 years. In 1953, the name was changed to The Pennsylvania State University in formal recognition of what it had long since become, one of the leading educational institutions in the country. The total student body has exceeded 98,000 with more than 6,100 full time faculty and another 2,784 part time faculty. The University, whose prime purpose has always been to serve the people and the interests of the Commonwealth and the nation, is accredited by the Middle States Commission on Higher Education and is one of 62 members of the Association of American Universities.

Penn State has 24 locations statewide and the World Campus. Educational opportunities are also available through television, internet, and correspondence. One out of ten college students in Pennsylvania attends Penn State and total enrollment for the Fall Semester of 2014 was 95,973 for all locations. As a major research facility, the University administers over \$813 million in sponsored research. Penn State's University Park is the main campus with an undergraduate student population of 40,541, and a graduate enrollment of 6,065. The campus physical plant, valued at \$2.7 billion, includes over 947 general and educational buildings, auxiliary structures, and 7,343 acres of land. The current value of the endowment is close to \$2.28 billion.

General operations of the University are supported by appropriations of the State Legislature, by tuition and fees, and by appropriations from the Federal Government. Governance and control of the institution is vested in a Board of Trustees composed of thirty-eight members. The Board of Trustees of Penn State is the corporate body established by its charter with complete responsibility for the governance and welfare of the University. To execute this responsibility, the authority for day-to-day management and control of the University and for establishing policies and procedures for the educational program and other operations of the University is delegated to the President. The President delegates certain responsibilities to the faculty and also consults with the faculty and the student body on matters in accordance with the general directives of the board.

The organization of the University includes twelve academic colleges, The Schreyer Honors College, Division of Undergraduate Studies, University System of Commonwealth Campuses, College of Medicine, Dickinson School of Law, Graduate School, and the World Campus. Library services come under the direction of the Dean of Libraries. The academic colleges of the University offer undergraduate majors leading to baccalaureate and associate degrees in Agricultural Sciences, Arts and Architecture, Business, Communications, Earth and Mineral Sciences, Education, Engineering, Health and Human Development, Information Sciences and Technology, The Liberal Arts, Nursing, and Science. In addition, Abington College, Altoona College, Behrend College, Berks College, Capitol College and University College provide alternative educational settings where students may enroll in selected undergraduate degree programs. The Dickinson School of Law, the Penn State Great Valley School of Graduate Professional Studies near Philadelphia, and The Milton S. Hershey Medical Center near Harrisburg offer a number of advanced degree programs. The following is the mission of The Pennsylvania State University:

Penn State is a multi-campus public research university that educates students from Pennsylvania, the nation, and the world, and improves the wellbeing and health of individuals and communities through integrated programs of teaching, research, and service.

Our instructional mission includes undergraduate, graduate, professional, and continuing education offered through both resident instruction and online delivery. Our educational programs are enriched by the cutting-edge knowledge, diversity, and creativity of our faculty, students, and staff.

Our research, scholarship, and creative activity promote human and economic development, global understanding, and progress in professional practice through the expansion of knowledge and its applications in the natural and applied sciences, social sciences, arts, humanities, and the professions.

As Pennsylvania's land-grant university, we provide unparalleled access and public service to support the citizens of the Commonwealth. We engage in collaborative activities with industrial, educational, and agricultural partners here and abroad to generate, disseminate, integrate, and apply knowledge that is valuable to society.

College

The mission of the College of Arts and Architecture is to educate and prepare artists, scholars, teachers, and other arts professionals and enrich the lives of others through the celebration and dissemination of the arts. The vision of the College as stated in its 2014-2019 Strategic Plan is:

- To create a rich and dynamic intellectual ecosystem that fosters excellence in teaching and learning, research and creative practice, and exhibition and presentation across the arts and design disciplines within the College and the University.
- To provide a culture that embraces diversity, encourages intercultural experiences, and affirms the value of differing perspectives within and between our disciplines.
- To position the college, our units, and our faculty and staff, and students as leaders in the arts and design disciplines within regional, national, and global communities.

Our mission and vision are rooted in the Penn State Values:

PENN STATE COMMUNITY: We are Penn State, one community geographically dispersed, united in our commitment to our common values, goals, and relationships to one another, the University, and our communities.

RESPECT: We honor the dignity of each person, treat each individual accordingly, engage in civil discourse, and foster an inclusive community.

RESPONSIBILITY: We meet our obligations and hold ourselves accountable for our decisions, actions, and their consequences.

INTEGRITY: We act in accordance with the highest ethical standards, making certain that our behavior reflects our values.

DISCOVERY: We seek and create new knowledge and understanding, and foster creativity and innovation, for the benefit of our communities, society and the environment.

EXCELLENCE: We strive to give and do our best in all our endeavors.

School

The School of Architecture and Landscape Architecture (SALA) was established in 1998 with the intent to encourage further cooperation and joint efforts between the Departments of Architecture and Landscape Architecture. Initially, there was no Director position and the heads of both departments reported directly to the Dean of the College of Arts and Architecture. The School functioned as an umbrella for interdepartmental endeavors and was governed by a School Council. The council was composed of an equivalent number of faculty members from each department along with the respective department heads.

In 2005, Cal Stuckeman, an alumnus of the architecture program, created a \$20 million endowment for the School, now renamed the H. Campbell and Eleanor R. Stuckeman School of Architecture and Landscape Architecture, with a request to establish a School Director, who would provide innovative leadership and advance a vision for the Stuckeman School in both the University and beyond. Brian Orland, then head of Landscape Architecture, was appointed Interim Director of the Stuckeman School until 2010, when the School hired Nathaniel Belcher as its Director. The department heads retained their memberships in the College-level Deans, Directors and Department Heads Committee. The department heads also retained their direct reporting to the Dean, while on matters related to the School, the heads now reported to the Director, who then reported to the Dean. The two departments also retained individual membership in key college committees, including the College Promotion and Tenure Committee. The College's Graphic Design program merged with the Stuckeman School in 2011, adding a new dimension to the Stuckeman School. In the summer of 2013, Director Belcher stepped down and Kelleann Foster, Associate Professor of Landscape Architecture, was appointed Interim Director. In 2014, Kelleann Foster was appointed Director of the Stuckeman School of Architecture and Landscape Architecture, as well as Associate Dean of the College of Arts and Architecture at the University, for a two-year term, which was then renewed till 2019.

Architects and landscape architects share a common mission: to design places and spaces that foster and celebrate humanity. Though professionally they might work independently, their work is complementary and often collaborative. Cal Stuckeman's generous gift allowed the school to create its own building—the Stuckeman Family Building—which has helped advance collaborative work and become one of the many attractive features of the architecture program at Penn State. The mission of the H. Campbell and Eleanor R. Stuckeman School of Architecture and Landscape Architecture is to:

- educate future architects and landscape architects;
- lead research and thinking about the future of the design professions;
- contribute to the intellectual life and outreach of the university;
- promote the sustainability and improve the quality of life in the built and natural environment.

Two centers were established within the School of Architecture and Landscape Architecture through endowment funds. First, The Stuckeman Center for Design Computing, created in the summer of 1998, expanded an existing computer center. It has now grown into an advanced design computing media laboratory. The Stuckeman Center encompasses a core lab space, with additional facilities distributed throughout the Stuckeman Building. This helps advance our philosophy to integrate design computing into our studio environment, rather than isolate computer facilities in "labs." Second, The Hamer Center for Community Design Assistance began operation in January 1999 and allows students learning opportunities through design assistance to communities and planning agencies in the Commonwealth of Pennsylvania.

Department

The Department of Architecture was established in 1910 with a four-year course in Architectural Engineering. In 1922, a curriculum in architecture was added, leading to the Bachelor of Science in Architecture. The enrollment reached 163 in 1930, and dropped to 83 during the Depression years of 1935-36. In 1948, the curriculum changed from a four-year to a five-year program, and the number of students gradually increased from 158 in 1948 to 194 in 1955-56, reaching a total of 256 in 1962. At one time the department was housed in the College of Engineering and Architecture, and encompassed the departments of art and architectural engineering. In January 1963, the department became part of a newly established College of Arts and Architecture, and by 1972 the enrollment in architecture had risen to 480. By instituting a quota of admission in 1972 and by being highly selective in its acceptances, the department since 1975 has remained relatively small and constant in size, thus maintaining an essential personal contact between faculty and students. The department presently enrolls 239 undergraduate students majoring in architecture, in addition to a cohort of approximately sixty five graduate students in our three graduate programs (professional M.Arch., post-professional MS and PhD.)

Architecture Program Mission

The architecture program's mission is to serve as a leading national and international, studio-centered program in the art and science of architecture, that is responsive to the most important social, environmental, technological, and cultural challenges of the twenty-first century, and to achieve excellence in teaching, research, design, outreach, advising, and service to society. In support of this mission, our aim is to:

- Educate undergraduate and graduate students in the discipline of architecture and to prepare them for a life of creative engagement and personal fulfillment in the practice of architecture and related fields;
- Encourage the production of exemplary works of architectural design, theory, critical analysis, and research in a studio-centered learning environment;
- Increase the cultural, religious, ethnic, and gender diversity in the student body, the faculty and in the curricular subject matter;
- Provide an educational environment that encourages the cross-fertilization of knowledge from all of the arts and sciences, where students and teachers are motivated to participate in the most urgent contemporary social, cultural, and environmental issues;
- Educate in the areas of ethical behavior, critical thinking, life-long learning, and service to society;
- Develop a teaching/learning environment that encourages collaboration and teamwork, as well as individual research and creative activity;
- Serve the regional area, the Commonwealth of Pennsylvania, the nation, and the international community by increasing public awareness of architecture.

Synergies and contributions to the University

All architecture faculty members contribute to the Department, School, College, and University by participating in committees at all levels. Of particular significance is the contribution of many faculty members to Penn State via participation on key university committees. Professor Nathaniel Belcher, former Director of the Stuckeman School, has been serving on the Architect Screening Committee that reviews the credentials of architectural firms competing for commissions for buildings on campus since 2011. He also participates in the interview process of the Architect Selection Committee, which comprises three trustees, to help select the most qualified architectural firm. Prior to Professor Belcher's appointment on these committees, Professor Jawaid Haider was involved in the same capacity from 1998 - 2011. Professor Haider also chaired the Facilities Planning Advisory Board (FPAB) from 1998-2015, a committee with broad university representation that oversees and reviews all planning and design projects on campus. Professor Scott Wing has been helping the university understand the importance of environmental design by serving on the Arboretum Design Committee and Shaver's Creek Advisory Committee. Professor Alexandra Staub has served on University Senate as an elected representative of the College. Professor Loukas Kalisperis has contributed to the university through his participation in the Graduate Council Committee on Programs and Courses, and the University Faculty Advisory Committee on Academic Computing.

Architecture faculty members also contribute in leadership positions at the College level. Scott Wing is serving as the Associate Dean for Academic Affairs in the College of Arts and Architecture. Dan Willis serves on the Promotion & Tenure Committee; Christine Gorby serves on the Sabbatical Leave Committee; Marcus Shaffer serves on the Undergraduate Committee on Scholarships & Awards; Nat Belcher serves on the Diversity Committee; Dan Willis serves on the Committee for Undergraduate Curricular Affairs; Christine Gorby serves on the Committee on Research & Creative Activity; Ute Poerschke serves on the Graduate Curricular Affairs committee; Cathy Braasch serves on the Academic Integrity Committee; Peter Aeschbacher serves on the Committee on Educational Resources, Information Systems, and Technology; Denise Costanzo serves on the College's General Education Committee; Shadi Nazarian serves on the Faculty Council; and Allan Sutley serves on the College Safety Committee.

Overview of Penn State's Approach to Architectural Education

Penn State's professional M.Arch. program is committed to being one of the most thoughtful, technologically progressive, and pedagogically distinctive programs among our peers. Our goal, like that of many architectural schools, is to provide entrants to the architectural field with well-developed, broad-based skills. What may be different at Penn State is that, due to the increasingly complex and diverse

nature of architectural practice, we believe that tomorrow's practitioner is best served by excellence in specific areas within the architecture discipline—be they sustainability, digital design, digital fabrication, project/practice management, urban and community design, or others. By requiring a number of electives (which we call Supporting Courses) in addition to general required coursework, we encourage students to move beyond basic comprehension of the field to develop skills in areas for which they have shown particular interest and talent. Through creating an academic plan, our students learn to select from an array of advanced offerings in diverse areas of study. These serve to enhance to the students' accumulated knowledge of architecture. No matter what the chosen focus for each student, we are firmly committed to the goal of individual excellence.

With this pedagogy, we intend to offer a broad range of options, so that our graduates are able to immediately utilize highly developed specialty interests as they become practitioners. We have discovered that our new building, the supportive nature of our faculty, and our diverse approaches and offerings have collectively created a highly sympathetic environment for the generation and interchange of ideas. This setting enables a productive and spirited exchange within the entire Stuckeman School, one that is charged with energy and critical inquiry at all levels.

An in-depth study of the liberal arts and sciences is fundamental for producing architects who are well-rounded critical thinkers. As committed as we are to preparing our students for professional practice, we also believe that it is important for us to provide them with what only a university can offer: a sense of presence and responsibility in a world where general intelligence and humanity is even more valuable than vocational expertise. To this end, Penn State has consistently been a leader in advocating the contextuality of studio education and the centrality of art in life.

I.1.2 Learning Culture

All architectural educators wish to provide an education that prepares students for leadership roles in the architecture profession. All architecture students desire to have the best education possible. The culture and atmosphere within the studio play a vital role in the quality of architectural education. Our community of educators, scholars, students, and professionals brings us in frequent contact with others sharing similar interests. Such a shared culture does not, however, suggest conformity. The success of our educational community depends on the ability of everyone to speak freely, to take risks, to dissent from the majority opinion, and to seek new and untested ways of doing things.

The Department of Architecture at Penn State aims to provide and promote an atmosphere that fosters respect and cooperation among members of our community. Faculty alone cannot create a healthy studio culture—it requires the full participation of our students. Each member of an academic community is unique, having a variety of diverse experiences, educational and family backgrounds, as well as academic and professional aspirations. Our academic setting is thus structured to encourage different viewpoints, multiple methods of teaching and critical inquiry, and the dissemination of knowledge by traditional and nontraditional methods.

In the architecture program at Penn State, “studio” is our shorthand term for a series of courses, but it is also a physical place that is founded on an educational ideal. That ideal is the belief that the studio setting situates our students so that they are able to learn from each other in addition to learning from the faculty. We are fortunate that the studio spaces in the Stuckeman Family Building have been carefully designed to maximize the interactions of students in all studio levels, as well as the Architecture and Landscape Architecture programs. To benefit from the Stuckeman Family Building and the proximity to other students it encourages, students must commit to working in the studio environment. We encourage all Architecture students to take full advantage of the educational environment in the Stuckeman Family Building, and whenever possible to complete their Architecture course assignments within the physical limits of our educational setting.

In the Stuckeman School, we emphasize respect as a paramount ideal. This includes not only respect for race, color, religion, gender, or sexual orientation, but also respect for different ideas, philosophies, and

methods within our field. We strongly encourage our faculty to respect the ideas and individual goals of our students, understanding that a diversity of ideas and goals among the student body is a great asset. Universities exist to promote new knowledge, not hinder it. Individual actions that are disrespectful of others cannot be tolerated in our community. Freedom of expression must be carefully balanced with freedom from intimidation or ridicule.

In order to help maintain a level of professionalism within the studio, students are encouraged to deal with grievances in a professional and mature manner. If a student has a specific problem in a course, she or he is asked to speak to the instructor who teaches that course. Only if the result of these discussions is not satisfactory, are students encouraged to meet with the Graduate Director or the Department Head.

Respect for property, both individual and institutional, is fundamental to our studio culture. Architecture students at Penn State are well known for their positive work ethic. Students must always respect the products of their classmates' work. As the designers of buildings and environments, it is also incumbent upon all of us to show respect for the facilities we occupy. If we do not respect the places in which we live and work, we set a poor example for those around us.

At Penn State, we believe that "architecture" is a way of living. Architecture is an unfolding process that enriches our lives. Architecture exists as much in the things we do as in the objects we make. In the lives of architects, as in their works, great attention must be paid to proportionality. In order to enjoy the fruits of architecture, we—the faculty and the students in the Department—must lead lives that are well proportioned.

In order to promote a healthy working environment, it is important that everyone's time be respected. Students have a right to expect that faculty will be on time and prepared to teach, and will acknowledge and respect students' non-studio time commitments. Likewise, students should be on time for class, prepared to work, and understand the commitment of time and energy that faculty have made to prepare and present course material. Students should manage their time to promote a healthy work-life balance, including adequate sleep, nutrition, and physical and social activities.

Architectural education employs a variety of means to review the ideas and work of students. These assessments are an essential part of studio culture. Reviews present an opportunity to discuss broader issues, as well as consider differing viewpoints and approaches. For formal reviews, students and faculty are expected to arrive on time and stay engaged as active participants throughout the review process. In advance of the reviews, faculty are responsible for informing invited guests and reviewers about the project intentions and background, as well as the expectation that the review will reflect the Department's commitment to a culture of respect, engagement, and professionalism. Students are expected to be prepared to discuss their work and participate in the discussions of their peers' work.

Studio Culture Policy

The Department of Architecture in the Stuckeman School developed its Studio Culture Policy in the fall of 2004. To garner student input, student representatives initiated discussions within their cohorts in 2006/07. Student input was formalized, with proposed revisions incorporated into the policy document over the summer of 2007. Since then, on an "as-needed" basis, various aspects of the policy have been discussed and reviewed in faculty meetings and the studio coordinators' committee and with student representatives. The Studio Culture Policy stresses the need for creating a shared culture and a spirit of unity in the studio without relying on conformity. Each semester, the faculty remind students of the policy, its existence, and the need to adhere to it and its principles. In summer 2018, the Stuckeman Council completed an additional document focusing on the shared responsibilities for the building's studio facilities; this document was added to the Studio Culture Policy website.

We expect everyone in the Department of Architecture to promote and enforce a safe, efficient place of work. The harassment of others will not be tolerated. Harassment is not limited to overt actions, but also includes creating situations that interfere with another's performance, or the fostering of an intimidating,

hostile, or offensive environment. Students must be aware that the memorabilia, photographs, and posters they display on their desk and around their workspace may be offensive to others. At the same time, members of any community must practice tolerance. Not everything that one finds offensive is intended to offend. Students are thus encouraged to work together to promote a positive spirit of cooperation balanced with respect for individual expression.

Each member of our community contributes something to our studio and institutional culture. As people come and go, as ideas find favor and then fall out of fashion, our culture must adapt. The goal is to continually reinvigorate our scholarly community of architects and budding architects, creating a supportive environment and a school of which all can be proud.

Harassment and Discrimination

The following Statement against Discrimination and Harassment defines University policy and is part of all Penn State publications:

The University is committed to equal access to programs, facilities, admission and employment for all persons. It is the policy of the University to maintain an environment free of harassment and free of discrimination against any person because of age, race, color, ancestry, national origin, religion, creed, service in the uniformed services (as defined in state and federal law), veteran status, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information or political ideas. Discriminatory conduct and harassment, as well as sexual misconduct and relationship violence, violates the dignity of individuals, impedes the realization of the University's educational mission, and will not be tolerated.

Provisions for Students with Disabilities

Penn State University is committed to providing a welcoming, encouraging, and empowering environment for students with disabilities to ensure equal access, full participation, and reasonable accommodations for their academic pursuits. The Office for Disability Services (ODS) is responsible for coordinating support services, arranging judicious academic accommodations, and promoting disability awareness in the university community. The ODS team is committed and ready to assist students with disabilities to reach their academic goals.

Academic Integrity

See Policy: G-9—

The Office of Student Conduct at Penn State University serves as a valuable resource for the university community by promoting a safe living and learning environment. The Student Code of Conduct applies to all students, including undergraduates, graduates, full-time, part-time, and World Campus students.

Learning Outside the Classroom

Our students have the ability to join a host of student organizations, from national associations to homegrown groups: AIAS, Freedom by Design, SEED (Students for Environmentally Enlightened Design), NOMAS (National Organization of Minority Architecture Students), Alpha Rho Chi, GSA, and year-specific groups. We support, with assistance from AIA Central PA, students travelling to AIAS Forum and national meetings, and NOMAS national meetings.

Given our location in central PA, field trips to urban locations, including Pittsburgh, Philadelphia, and New York, are a focal point of almost every studio we teach. In addition, our students visit sites of architectural importance, in order to experience architecture as a built artifact.

I.1.3 Social Equity

The Architecture Department, Stuckeman School, College of Arts and Architecture, and The Pennsylvania State University are committed to equality and diversity in all aspects of their operations. The Office of the Vice Provost for Educational Equity is a catalyst and advocate for Penn State's diversity

initiatives. The office's vision is a Penn State community that is an inclusive and welcoming environment for all. Since the implementation of the initial Framework in 1998, Penn State has made considerable strides toward building a truly diverse, inclusive, and equitable institution and in establishing an infrastructure to facilitate effective diversity planning, implementation, and reporting processes. Fostering diversity must be recognized as being at the heart of our institutional viability and vitality, a core value of the academic mission, and an institutional priority. With the 2010-15 Framework, Penn State started the next phase of achieving our diversity potential, and will continue to develop this framework further as we move forward with the current strategic plan 2016-2020, excerpts below.

- *Institutional initiatives for diversity and inclusion and how the program is engaged in or benefits from these initiatives:*

The University Strategic Plan (<http://strategicplan.psu.edu/>) includes a section on "Fostering and Embracing a Diverse World". Penn State recently launched an "All In at Penn State" diversity and inclusion campaign (<http://allin.psu.edu>) that targets all aspects of respect and inclusion for the Penn State Community. This campaign will host major themes of diversity and inclusion including panels, speeches, performances, research and teaching.

Excerpts from the Strategic Plan section "Fostering and Embracing a Diverse World":

- .2.2 Students, faculty, and staff alike rightfully demand that the University be inclusive and make meaningful efforts to be successful and accountable. Penn State is committed to diversity, equity, and inclusion [...].
- .2.3 University diversity demographics and projections highlight the importance of recruitment, retention, and success of diverse faculty, staff, and administrative leadership within the context of an inclusive educational environment. Penn State has emerged as a national leader for our diversity, equity, and inclusion work, and this is an area where we have further opportunity for broader and deeper results. Diversity has immense practical value with respect to scholarship, research, and workforce development.
- .2.4 Inclusion and equity are central to Penn State's obligation and commitment as a public institution of higher education to teach effectively all of the people in our communities [...] Diversity is critical to the education of all students. It broadens their exposure to people representing different countries and nationalities; age groups; racial, ethnic, religious, and socioeconomic backgrounds; mental and physical abilities; and sexual orientations and gender identities, among others. Education within a diverse environment, with people having opinions and perspectives different than one's own, helps to create a rich learning context and prepares students for life in a complex, changing society [...].
- .2.5 We will continue to foster and sustain an environment of respect and inclusion for faculty, staff, students, and members of the communities we serve. [...] We will assertively incorporate diversity, equity, and inclusion into our research, teaching, learning, outreach, assessment, operations, and decision-making at both the unit and University levels, and equip Penn State leaders, faculty, and staff with the tools to foster diversity, measure results, be accountable, and further institutionalize a culture of inclusion.

The College of Arts and Architecture has developed "Strategies for Fostering Diversity, 2014-19" (included in Section 4—Supplemental Info) as a way of implementing and putting into action the items noted in the University plan. The Department Strategic Plan, in turn, has as one of its seven mission items to "increase the cultural, religious, ethnic, and gender diversity in the student body, the faculty and in the curricular subject matter." The full Department Strategic Plan is available in the team room.

To support the above initiatives, the office of the Provost offers financial assistance (partial salary from 1/3 to 1/2) for diversity hires and retentions. We have been able to benefit from this for two recent African American hires, receiving permanent support for 50% of both salaries. In addition, we have

been able to receive support from the Provost's office for three fixed-term female faculty at 1/3 of their salaries for three years. (Combined total of over \$100,000).

The Office of Multicultural and Recruitment Programs in the College of Arts and Architecture makes available Bunton Waller Fellowships, which provide minority graduate students with two years of tuition as well as monthly stipends, totaling over \$50,000 for PA residents, and over \$80,000 for non-PA residents. Through these fellowships, we are able to offer three full financial packages for our M.Arch. program to African American students in 2018, and one in 2017.

- *How we plan to maintain or increase the diversity of faculty, staff, and students as compared to the diversity of the institution.*

We believe that a diverse student, faculty and staff body is imperative for our growth, both in terms of quality and quantity. To achieve diversity, we are working on multiple fronts at once. We recognize the importance of a welcoming and inclusive environment, an inclusive recruitment plan, a diverse review process, and equitable treatment that leads to retention of students, faculty and staff. We have put in place the following plans for increasing the diversity of the students. The male/female ratio of our student body is at 50%. We would like to maintain this ratio. Two-thirds of the students in our M.Arch. program are international students. We are working hard to increase the domestic pool of applicants. We currently have three African American students in our M.Arch. program. The program is very strong currently in diversity as it relates to religious and ethnic backgrounds, and we will maintain this diversity.

- a) We highlight the diversity of our student body and faculty in recruiting. Through our faculty and students, we have developed connections to stellar schools of architecture around the US and the world, and we advertise at these schools annually. We have expanded our recruitment efforts, in part through purchasing recruitment lists to increase the breadth of our recruiting efforts.
- b) We recruit annually at the NOMAS (National Organization of Minority Architecture Students) conference, in part through purchasing recruitment booths. We enlist our NOMAS representatives to recruit at this conference and fund their travel for this purpose. Last year, NOMAS received \$7,302 in financial assistance and we are committed to maintaining this support.
- c) We organize recruitment trips to UG programs in PA and the region to ensure wide awareness of our program. Local recruitment, in particular, addresses the land-grant University's goal of serving the people of the commonwealth.
- d) We send recruitment material to all ACSA architecture programs, reaching a very wide audience. We will maintain this practice.
- e) We utilize the entire faculty body to review graduate applicants. This means that the diversity that is built into our faculty translates to a broader view of academic competence and skills. We will continue to do this.
- f) We plan to seek as many Bunton-Waller fellowships as we can, each year. We have had access to two fellowships and will seek additional ones as we are able.
- g) Since we have made the revenue-sharing plan with the Provost's office, we are able to accommodate assistantships as a part of our admission offer, removing some financial barriers. We will continue this practice, and will seek additional resources towards assistantships.

We have put in place the following for the faculty:

- a) For every faculty search we ensure that the search committee is composed of a diverse group of faculty. This diversity includes gender, rank, race, as well as ethnicity. The Department Head ensures that the diversity of gender, rank, race and ethnicity is achieved with each search.
- b) In faculty searches, we advertise in a wide range of venues, including web and national print platforms. In addition, we specifically ask our faculty to reach out to appropriate colleagues. The range of our faculty's backgrounds has helped ensure diverse applicant pools.
- c) We will keep utilizing the financial support from the Provost's office, mentioned above, to support diversity hires.

d) The Department Head is responsible for fixed term (non-tenure line) hires. In that capacity, the Department Head annually hires faculty with an eye towards diversity. For example, this year, four of five multi-year fixed-term faculty are female.

- *Development of strategic plans and the individuals involved in the process.*
Departmental strategic plans are developed through departmental committees, which work in parallel with College and University committees. The plans are developed with the assistance of the College's Diversity Committee, and the office of Multicultural and Recruitment Programs in the College of Arts and Architecture. This helps to keep diversity and inclusion at the forefront of recruitment, retention, and curricular development. The Departmental committees receive their charge from the Head, and report to the faculty at regularly scheduled faculty meetings. Matters are discussed and voted upon by the full faculty.
- *Diversity initiatives are linked to the program's self-assessment and long-range planning.*
One of the Department strategic plan's seven mission items is to "Increase the cultural, religious, ethnic, and gender diversity in the student body, the faculty and in the curricular subject matter." The College and the University have dedicated significant portions of their attention to social equity. The University assesses itself on its accomplishments towards its strategic plan, and in turn, its units, such as architecture, are also assessed based on the strategic plan. In short, the strategic plans define what we should be doing, and provide a measure when we assess our success in accomplishing the stated goals.

Enrollment

2013-14 was the first year of the professional M.Arch. program at Penn State. We are working toward a gradual reach to its intended maximum cohort and enrollment of 30-36 students.

Total graduate student enrollment 2016-17 through 2018-19:

Type of Students	2016-17	2017-18	2018-19	Three-Year Enrollment Average %
Full-time students	16	19	25	20
Female students	8	10	15	67%
American Indian/Alaskan Native	0	0	0	0%
Asian/Pacific Islander	6	6	5	30%
Latino/Hispanic/Puerto Rican	0	0	0	0%
White	8	9	13	50%
African American	0	0	3	5%
Declined to report	2	4	4	15%
Total minority students	6	6	8	35%

Institutional-level policies

Penn State's Statement against Discrimination and Harassment is a part of all Penn State publications and is noted on page 12 of this APR.

Provisions for Students with Disabilities

Penn State University is committed to providing a welcoming, encouraging, and empowering environment for students with disabilities to ensure equal access, full participation and reasonable accommodations for their academic pursuits. The Office for Disability Services (ODS) is responsible for coordinating support services, arranging judicious academic accommodations, and promoting disability awareness in the university community. The ODS team is committed and ready to assist students with disabilities to reach their academic goals.

EEO/AA Policies and Procedures

Penn State's Statement against Discrimination and Harassment also describes Penn State's policies and procedures relative to Equal Employment Opportunity and Affirmative Action (EEO/AA) for faculty, staff, and students and is noted on page 12 of this APR.

It is the policy of The Pennsylvania State University to provide equal opportunity in all terms and conditions of employment, for all persons, as described in the University's Affirmative Action Plan and HR01. The intent of this policy is to prohibit discrimination (including sexual harassment) and to promote the full realization of equal employment opportunity through a continuing affirmative program in each administrative unit outlined in the Plan. This policy of equal opportunity applies to, and must be an integral part of, every aspect of personnel policy and practice in the employment, development, advancement, and treatment of employees and applicants for employment at the University. Penn State's Office of Affirmative Action has developed Guidelines for a Diverse Workforce to assist deans, department heads, and search committee members in conducting affirmative searches that are consistent with the University's commitment to Affirmative Action and Equal Employment Opportunity and with applicable laws and regulations. More information is readily available in the Fair Employment Practices and Staff Employee Handbook.

I.1.4 Defining Perspectives

This section describes how the program is responsive to the perspectives: A. Collaboration and Leadership, B. Design, C. Professional Opportunity, D. Stewardship of the Environment, and E. Community and Social Responsibility

A. Collaboration and Leadership

The dual mission of assuring a general education and providing strong disciplinary focus remains at the heart of Penn State's distinctive contribution and commitment as a Land-Grant Institution. The University continues to guard against a proliferation of requirements for various specific courses and, where possible, tries to accommodate student flow between programs. This enables students to make reasonable changes in career and disciplinary goals without losing credit for work already completed.

Faculty are expected to meet all requirements of the scholarship of teaching and learning, the scholarship of research and creative accomplishments, and the scholarship of service to the university, society, and the profession. University resources and physical facilities are compatible with an institution of this size and quality. The College of Arts and Architecture is the academic entity within which the department operates. The various academic units within the college are all in close physical proximity, thereby encouraging collaboration and interdisciplinary interaction. Together, the buildings and outdoor spaces form the Arts sub-campus; studio facilities in sculpture, painting, printmaking, photography, and other visual and performing art studios including theater production are within a two-minute walk of our building. Related departments of Art History, the Visual Arts, and Music are also clustered in this area, and provide instruction, printing, visual, and audio resources, once again emphasizing collaboration.

The Architecture Department continues to maintain strong ties with the Department of Architectural Engineering through collaborative programs, interdisciplinary faculty research and other cooperative endeavors. Currently, the Department of Architectural Engineering provides architecture students with required coursework in structural and mechanical systems, while the Architecture Department reciprocates with architectural design courses for engineering majors. In addition, the Department of Art History teaches the required history of architecture survey courses for our UG students. The Architecture Department also offers an Architectural Studies Minor for non-professional degree students seeking an architecturally related career.

Faculty and students within the Department are regularly involved with and contribute to the selection process by which architecture firms are chosen for new construction and renovation projects in the Penn State University system. We believe this participation has contributed to a higher standard of architectural

quality of campus facilities, and has projected students into potential leadership possibilities. Respected architects and firms such as Rafael Vinoly, Robert Stern, Bohlen Cywinski Jackson, HOK, the Polshek Partnership, Overland Partners, and Payette Associates have all designed recent campus projects. Many members of the faculty also practice architecture locally, nationally, and internationally. Many of our students belong to and take leadership in student organizations, some national, such as AIAS and NOMAS, and others initiated here, such as SEED (Students for Environmentally Enlightened Design). One of our AIAS leaders has served as Forum president and the national AIAS president.

The Department encourages faculty and student participation in national and international conferences to present their creative work and productive scholarship. Some faculty and students have been recognized by ACSA for their teaching and creative achievement in the past (see section “1.3.3 Faculty Credentials” for details). In addition, many of our graduate students present at national and international conferences, and have also taken leadership in organizing student-led conferences at Penn State.

Faculty members consistently engage in high-level research in the Department and many have been successful in securing prestigious external grants as Principal Investigators. Current research projects include collaborations with the College of Engineering, College of Earth and Mineral Sciences, Material Research Institute, the Law School, and more. All of these research projects include students as a foundational part of the work. For examples of ongoing grants and research projects, a table is provided in Section I.2.1 Human Resources and Human Resource Development.

All of these efforts collectively point to an environment that encourages collaboration among architecture students, and with other University students, while supporting leadership roles for our students.

B. Design

Due to the high demand for admittance into the Department of Architecture, we are fortunate to have many exceptional students. The unique nature of architectural studio education creates an environment where the students are intimately involved in the day-to-day activities of the program. Their constant presence in the building naturally invites them to be active participants in shaping all aspects of our curriculum, both explicit and implicit. By definition, the “design critique/jury” involves the students individually and collectively in the crafting of their education. The faculty regularly invite graduate and upper level students to serve as guest jurors for lower year courses. This intermixing of students from various year levels contributes to an integrated and cohesive student body. Additionally, the open studio design of the Stuckeman Building promotes student interaction and mutual awareness, not only within the Architecture student body, but also between Architecture and Landscape Architecture majors. We believe this empowerment of students adds a unique dimension to architectural education and encourages students to share and debate ideas to hone their critical thinking skills.

The Department of Architecture has a long-sustained history of design-centered education, and the design studio is the centerpiece of that education. We pride ourselves in our design studio curriculum and its delivery in the studio environment. It may seem commonplace to say that the discipline of architecture is, in itself, multi-disciplinary. It is indeed this very commonplace statement that continues to introduce complexities in the way that we teach and practice architecture. The fundamental issue is that architecture is a synthetic discipline that requires knowledge and expertise in composition (arts), history and theory (humanities), structural, environmental and mechanical systems (engineering), material properties (material sciences), land use and policy (law), computation (computing), human factors, infused with our professional responsibility to protect the public’s health safety and welfare. The students and architects, alike, are constantly asked to integrate and synthesize information from many different fields of study. The education of architecture in our curriculum is therefore a circulation between the disciplinary logic of each of the subjects and the inherent tectonic and synthetic model of learning of architects, added to the professional concerns of practice. The teaching of the core intellectual domains of each subject to architecture students is central to the pedagogic mission of any architecture program and critical to the survival of the profession. Yet this mission must be tempered by a shift towards the synthetic and the professional.

The curriculum of the professional Master of Architecture graduate degree is organized to reflect this dual nature: on the one hand, students learn the core disciplinary practices of every field that influences architecture and on the other, they learn to synthesize as an architect. To that end, our program circulates curricular content horizontally, among courses within each semester, as well as vertically, from semester to semester and year to year. The curriculum of each year is thus composed of design studios, lectures, seminars, and workshops that examine the topic of the year through multiple lenses.

Woven throughout our curriculum are concerns about sustainable practices, urban and community configurations, collaborative and social conditions, and the development of a humanitarian perspective. We train our students to be ambassadors of excellence in the design of the built environment, as well as stewards of the natural environment. Design is the centerpiece of our curriculum.

In addition to the curriculum, we approach design in many other places in our students' lives. The interaction between students at different year levels is enhanced by many annual "traditions" we maintain within the curriculum. These rituals include our various charrettes and competitions such as the Corbelletti Charrette, The Stewardson Competition, and the Kossman Review. At the conclusion of these competitions, student designs are always exhibited, and there are generally public presentations to present the winners and discuss the projects. These traditions not only highlight the complex nature of design, but also the multiplicity and diversity of approaches involved. Students also engage in events that contribute to the social environment of the department such as an annual architectural costume parade, or a pumpkin carving competition. These serve as social celebrations in which students serve as participants as well as planners and administrators.

The Department is committed to providing extracurricular events that expose students to a wide range of diverse ideas and work from professional practice and allied design disciplines. Our lecture series has received an influx of new funding from the Stuckeman Endowment, which has allowed us to invite major practitioners and theorists, such as Snøhetta and Dust in 2017-18, Peggy Deamer and Peter Cook in 2016-17, or Peter Eisenman and Nader Tehrani in 2015-16. Coordinated with the Departments of Landscape Architecture and Graphic Design lecture series, the series includes a number of jointly funded lectures. In addition, University organizations, such as the Institute for Arts and Humanities, sponsor visiting lectures of interest to architects.

Six independent student organizations provide the means and opportunity for students to be actively involved and assume leadership roles in the life of the department, the university and the community: the Penn State chapter of AIAS, a chapter of *Alpha Rho Chi*, an *Architecture Student Interest House*, GRID (Graduate Researchers and Innovative Designers), NOMAS (National Organization of Minority Architecture Students) and SEED (Students for Environmentally Enlightened Design). These groups are instrumental in helping and, at times, leading major events, activities, and programs. Additionally, the PSU DIGITAL BEEHIVE workshops are student-organized events to teach peers in the Stuckeman School state-of-the-art computer programs. All of these organizations hold the advancement of "design" as their primary objective.

The local chapter of Alpha Rho Chi and the AIAS participate in such campus-wide events as homecoming preparations, Dance Marathon, and other social and charitable activities, in addition to academic events, such as portfolio workshops and lectures. The AIAS maintains ties to the Middle Pennsylvania Chapter of AIA, which regularly supports participation of our AIAS officers in the AIAS national meetings. AIAS activities have expanded considerably in the past few years and the Penn State chapter membership has increased by 37. In 2012, Penn State Architecture student Danielle Mitchell was honored for her leadership of Penn State's chapter of the AIAS. Mitchell, who began her second term as president of the Penn State chapter of AIAS, was named the August AIAS Chapter Leader of the Month. In 2013, students organized an AIAS Quad Conference, "From Bytes to Built." More than 275 students attended this conference from the northeast region, including sixty Stuckeman School students. Danielle Mitchell went on to serve as the national president of AIAS in 2015-16.

Lastly, the Department collaborates with the Department of Landscape Architecture to offer a summer camp for high-school students every year. Faculty, alumni and students contribute to the camp, which introduces students to the broad spectrum of issues related to design, as well as the creative and interdisciplinary nature of the two design disciplines. Although this does not directly play into the M.Arch. curriculum, it describes one of the many ways that the Department is committed to design education.

C. Professional Opportunity

The professional architecture programs at Penn State are structured to prepare graduates with the theoretical background and practical skills necessary to become licensed architects. Courses in the M.Arch. program are designed to develop an understanding of the following: historical forces that shape the built environment, building and site design sensibilities, specific methods for addressing design criteria, environmental issues, life safety, building materials and construction methods, structural concepts, construction standards and regulations, and ethical responsibilities.

Incoming students are given an architecture school information packet that includes access to the ACSA Guide to Architecture Schools that provides an overview of architectural education, degree options, and the path to licensure including the Architectural Experience Program (AXP), formerly the Internship Development Program (IDP), and the Architectural Registration Examination (ARE). Additionally a "Paths to Architecture Licensure in the USA" handout is provided as part of this information package. Information related to establishing an AXP Record is posted on the Architecture Department website which is available to prospective and current students.

Early each Fall Semester an AXP/ARE information session is held for all architecture students. Presented by either a representative of NCARB or the Pennsylvania AXP State Architect Licensing Advisor in conjunction with the School AXP Architect Licensing Advisor, this ninety-minute session includes Q & A. Sean Sheffler, the current State of Pennsylvania AXP Coordinator as well as Joe Adiutori, Jr., the current AIA Pennsylvania Associate Director participated in the Fall 2017 presentation. At this session information related to NCARB AXP/ARE and State specific licensure information was provided. Student resources such as the State and School Architect Licensing Advisor are also identified to the students. The School AXP/Licensing Advisor also sends emails to all architecture students at least one time per semester encouraging students to establish NCARB Records, reminding students of the need to establish a Date of Eligibility as well as providing links for detailed NCARB AXP/ARE information. All NCARB Date of Eligibility Forms received from students are signed, recorded and forwarded to NCARB by the Department office. The Architect Licensing Advisor also corresponds with students through email and meets with students and colleagues on an as needed basis.

The current Professional Practice course for M.Arch. students dedicates a substantial amount of coursework to the topic of professional responsibilities and the role of the architect in various professional, social, technical and ethical contexts. The course includes visits to professional offices in Washington, DC, or New York City. Attention is given to a detailed discussion of the AXP and ARE requirements and procedures as well as requirements specific to the State of Pennsylvania, along with noting that AXP/ARE requirements can vary from state to state.

The role of the AIA, and all architecture collateral organizations, is discussed in the course. Additionally, a recent architecture program graduate working in an architectural office makes a class presentation on the AXP, preparing for the ARE, and transition from school to practice. Differences in non-United States architectural education, licensing and practice are also touched upon in the Professional Practice class. In 2012, the position of Career Counselor/Advisor was established to advise students on possible career choices and to work with both firms and students to create positive internship and externship opportunities. Ross Weinreb currently fills this role. Professor Nathaniel Belcher, AIA, NCARB, former NAAB Board member, has served as the School AXP Coordinator since Summer 2013. Penn State School AXP coordinators have attended the NCARB AXP Conference since 2008 and will continue to do so.

Many architecture students participate in summer employment and internships. The Stuckeman School

sponsors a spring Career Day for architecture students. Career Day activities are held over three days. The Career Day program kicks off with a Recent Graduate Panel Discussion, which includes presentations from six recent graduates (2-10 years out of school). Each participant provides an overview of their postgraduate experiences, as well as advice for current students. Topics covered include AXP, ARE, job search strategies, and the transition from school to practice. A diverse group of panelists is selected to provide a wide range of experiences from small to large office as well as alternative careers. The second day is a full day of presentations by attending firms and two "Poster Sessions" where students have an opportunity to interact with practitioners. Additionally there is lunch with faculty and student leaders and an evening reception open to all. The third day is devoted to interviews that are held at the Penn State Bank of America Career Center, and the firms arrange student interviews. Sixty-four firms (21 Architecture, 14 Landscape Architecture, 2 Graphic Design, 27 Multidisciplinary) attended Career Day in 2018, and of those, twenty-five conducted student interviews.

The Department Head often works with the Middle Pennsylvania AIA Chapter to arrange meetings with students. We have coordinated lecture schedules, and have arranged for continuing education credits to be granted at most Department presentations. The Middle PA AIA Chapter typically sponsors one lecture per year. In addition, the head also consults on a regular basis with the Architecture Alumni Advisory Group, comprised of architectural practitioners and AIA members, as well as educators from other architecture schools. To facilitate professional dialog, architecture alumni are invited to join a reception for Penn State alumni at AIA's national convention. The reception is a collaborative effort of the AIA-Pennsylvania and Pennsylvania schools of architecture, including Penn State, University of Pennsylvania, Carnegie Mellon, and Temple.

In 2011, the School of Architecture and Landscape Architecture launched the Stuckeman Advisory, a group of professional advisers who visit the Stuckeman School, and engage with faculty and University leaders to provide important external assessment. Stuckeman Advisory, which comprises faculty, practitioners, and students from architecture, landscape architecture, planning, and graphic design, has become an additional resource for the architecture program. The intent of this Board is to broadly address the current state of the design professions and its implications for curricula in the Stuckeman School. The Advisory Board's last two years have been productive and meetings have focused on listening and learning about the Stuckeman School. The Board has made several important decisions pertaining to the recruitment of an experienced professional membership, establishment of the various administrative and management systems necessary to function as a high-performing team, and the formation of three tactical work groups.

The Department [website](#) posts job advertisements for all levels of professional employment free of charge, so that current students and alumni have access to this information. The Department regularly brings in professional architects as guest lecturers and design jurors, offering students direct contact with practitioners. The discussions that follow the formal presentations are often lively debates on a wide range of issues related to the practice of architecture.

D. Stewardship of the Environment

The Architecture Department is fully committed to environmental sustainability. The Department (in conjunction with the U.S. Green Building Council, Architectural Engineering, and Landscape Architecture) helps teach a University course to train and qualify students as LEED-accredited professionals. The Stuckeman Family Building was the first building at Penn State to receive a LEED Gold rating. The Department is also fortunate to have one of the leaders of the green architecture movement—James Wines—on its faculty. Many Architecture faculty conduct research on issues related to the environment. For example, in 2018, Prof. Lisa Lulo, in collaboration with other university faculty and our students, won the Department of Energy's national competition "Race to Zero" for zero-energy suburban single-family housing. Environmental concern is also incorporated throughout the curriculum, in classes and other events. For example, in 2017 the Department hosted a two-day symposium on "City Energy Information" with academics and industry representatives from across the country. Faculty members are organized in

four research clusters, one of which is “Sustainability.” This Cluster focuses, among other things, on low-energy housing projects and involves students from both master’s programs.

To facilitate and broaden the Department’s efforts in sustainable architecture, several faculty members in the Stuckeman School established the Students for Environmentally Enlightened Design (SEED) as a multidisciplinary student organization recognized by the Penn State Office of Student Affairs. Supported by the Department and faculty, SEED promotes student-supported initiatives in environmentally conscious design. A major project has been to design a shipping container library for refugee camps in Africa, completed in 2015. Here, SEED was working with the African Book Project, which has sent hundreds of thousands of books to Africa throughout the last decade.

The architecture program’s emphasis on the design studio sequence, described above under “design”, is intended to help students understand the critical role design plays in shaping the environment with all its complex ramifications. The responsibilities and inherently collaborative nature of architectural design and practice are introduced to students in our studios. These are then reinforced throughout the studio sequence through group projects, interaction with real and hypothetical clients, and through regular guest lectures and topical presentations. The curriculum emphasizes intellectual and operational abilities that would enable students to assume future leadership positions in an increasingly changing, environmentally sensitive, culturally diverse, and globalizing world with a rapidly growing knowledge base. The existence of the School of Architecture and Landscape Architecture highlights our long-term commitment to collaborative practice and interdisciplinary learning that is committed to environmental stewardship.

Ethical issues and the professional conduct of the architect are covered in the Professional Practice course and the Theory sequence (a required ethics course has modules on both environmental and social sustainability), which directly impact the students’ understanding of environmental responsibility. The Professional Practice course includes full day visits to architectural firms by small groups of students for an in-depth discussion of practice related topics and issues outside the walls of academia. Additionally, many local AIA Chapter members are regularly invited and scheduled to make class presentations on relevant issues affecting professional practice, environmental stewardship, liability, ethical conduct, and code enforcement.

The Bowers Program provides seed money for interdisciplinary teaching, research, and creative projects. Through Bower-funded initiatives, architecture students have the opportunity to work closely with Architectural Engineering and Landscape Architecture students. Bowers funding has been utilized in the Solar Decathlon and most recently in the Interdisciplinary Collaborative Design Studio, both of which highlight our dedication to environmental stewardship.

E. Community and Social Responsibility

As a land-grant university, Penn State is under a mandate to serve the citizens of the Commonwealth. The university has an exemplary record of community outreach and service learning projects. Significant opportunities are offered to encourage students to contribute through service learning to their community, to the Commonwealth of Pennsylvania, and to the world at large. These exposures collectively help students develop a sense of social responsibility.

At University Park, the large number of minority and international students introduces architecture students to a world of personal and cultural contacts. Specific organizations like the National Organization of Minority Architecture Students (NOMAS), Alpha Rho Chi, and other College and University level organizations are open to participation. The Department provides the option of a foreign study experience to its graduate students, which exposes Penn State students to students from other countries. Organized field trips are an integral part of these programs and at least three extended field trips to a variety of sites or cities are included each semester. Students of the professional M.Arch. program have participated in the Rome program and in the Korea/Japan program. We believe these experiences sensitize students to the needs of diverse communities, while enhancing their social responsibility as members of a new community.

In the design studio the changing role of technology in the profession of architecture is addressed with problems that question traditional techniques of representation and construction by integrating social, cultural, and formal concerns. Our students participate in regional, national, and international design competitions that address public issues—often with very positive results. Digital fabrication and visualization techniques are incorporated to enable students to use technology in innovative and meaningful ways. We believe such connections are essential to encapsulate the complexity of contemporary design and the public domain. They do much to reinforce to students that architectural design and the technologies used to execute them have direct social and environmental impacts. Helping students understand how architects can contribute to improving the environment and quality of life in many locations fosters a sense of civic responsibility in our students.

The Hamer Center for Community Design Assistance organizes many community outreach projects in which the department participates, often with faculty and students from Architectural Engineering and Landscape Architecture. The Hamer Center is a center within the School of Architecture and Landscape Architecture. Students, center staff, and faculty have participated in a variety of projects with direct links to local and surrounding community associations and businesses. For example the Energy Efficient Housing Research (EEHR) group, a design/build outreach arm of the Hamer Center, engages a multidisciplinary team of faculty, graduate and undergraduate students dedicated to the investigation of energy efficient, affordable and sustainable housing—from design and construction methods through performance optimization—in order to inform better housing solutions and more resource-conscious living. EEHR has partners with local housing providers, to undertake projects within the community.

Several students each year, including those enrolled in the M.Arch. program, are engaged as research assistants with EEHR. This work has attracted the attention of a State College Borough affordable housing provider, the State College Community Land Trust (SCCLT). Undertaking their first new construction project, SCCLT engaged EEHR to assist with the realization of a demonstration net zero energy-ready and environmentally sustainable model for affordable housing in the region.

Another recent project organized through the Energy Efficient Housing Research group (EEHR) and formalized under the *Sustainable Housing Initiative* included collaboration with partners from Penn State's Office of the Physical Plant (OPP) and Residential Life and Food Services (Res. Life) to investigate more sustainable and lower-energy design and construction of campus residence halls. Introduced in 2010, students enrolled in ARCH 412: Integrative Energy and Environmental Design have participated in an applied research and design project to promote strategies for both renovation of existing residence halls and the design and construction requirements for new residence halls at University Park and on Penn State Commonwealth campuses.

EEHR/Hamer Center engaged scholarship opportunities leverage community connections, inform educational and research initiatives, and provide students with hands-on activity and settings for interaction that promotes professional responsibility and conduct.

Similarly, one of the notable elements of the capstone thesis course is that students frame their final work as an architectural contribution to an area of particular interest that invariably includes social, cultural and civic issues as an integral part of their design research. Examples of topics addressing community issues have included intergenerational housing design strategies, architecture as an agent of activism in New Orleans, contributing to revitalizing small towns via architectural interventions, understanding implications for an architectural intervention at the US-Mexico Border, exploring the role of architecture in pre and post earthquake sensitive Oaxaca (Mexico), studying the adaptive reuse of oil rigs for fishing communities in the gulf of New Mexico, and addressing the shift from precarious squatting to consolidated settlements in San Juan (Puerto Rico).

The involvement of our faculty in local community organizations such as the Redevelopment Authority (RDA), appointed by the Mayor of State College, and the Discovery Space of Central Pennsylvania—a

hands-on children's science center—expose students to local civic and public issues. Professors Haider, Muramoto, and Shaffer have contributed significantly to interior and exhibit design of the Discovery Space. This faculty involvement is further enhanced by substantial faculty research grants from external agencies that address community and public concerns, such as sustainability, public space, active living and the built environment, and health and place.

I.1.5 Long-Range Planning

Multi-year planning and data collection follow complex and extended processes at various levels that include the following:

- Strategic plans: assessment and implementation: The University has a 5-year strategic planning cycle. This, in turn, mandates the same at the College, School and Departmental levels. We have included in Section 4—Supplemental Information the long-range strategic plans for the College, the School, and the Department. In addition to the formal reporting of activity to the administration, we report annually to our alumni and donors through the Stuckeman Annual. We also report to the Stuckeman School Advisory Board. The accomplishments of the strategic plans are highlighted in these reports.
- Advisory boards
- Alumni survey
- Activities and policy reviews of Centers (Hamer and Stuckeman)
- Stuckeman School's role in future planning
- Means of faculty input (committees, faculty meetings, retreats, etc.)
- Faculty expertise, development, and expectations
- Student input and survey
- NAAB annual reports, VTR, and APR

Many of these are discussed in more detail in the self-assessment section (below). This section focuses on long-term planning processes at Penn State. The Department's participation is based on its mission and culture, the mission and culture of the institution, and the five perspectives.

Penn State has relied on ongoing, University-wide, participative strategic planning for twenty-five years. This process can continue to help us establish priorities, make choices, and enhance excellence in the midst of changes that are bringing both increased challenges and greater opportunities.

Looking at both future challenges and opportunities, Penn State has highlighted critical issues in its current strategic plan, "Our Commitment to Impact": The Penn State Strategic Plan for 2016 to 2020. This plan lists six foundations:

1. Enabling Access to Education
2. Engaging Our Students
3. Fostering and Embracing a Diverse World
4. Enhancing Global Engagement
5. Driving Economic Development
6. Ensuring a Sustainable Future

The plan also lists five thematic priorities:

- 1 Transforming Education
- 2 Enhancing Health
- 3 Stewarding Our Planet's Resources
- 4 Advancing the Arts and Humanities
- 5 Driving Digital Innovation

The central administration mandates that every budget unit create and submit a strategic plan. The University's five-year planning cycle includes annual updates and mandates the same at the College, School and Department levels. The College Strategic Plan identifies goals generally based on the theme

of prioritization for excellence as articulated by the University:

Aspirational Goal: Making the Arts and Design Central at Penn State

Supporting Goal 1: *Create Transformative Experiences for Students*

Supporting Goal 2: *Engage Communities Through Research, Curricula, and Arts Presentation*

Supporting Goal 3: *Lead in Technology in the Arts and Design Disciplines*

Supporting Goal 4: *Maximize the Visibility of the Arts and Design at Penn State and Beyond*

The H. Campbell & Eleanor R. Stuckeman School of Architecture and Landscape Architecture 2016-2020 Strategic Plan enumerates the following goals:

- Develop a School Governance structure
- Increase the gender, ethnic, racial, economic and cultural diversity of the school
- Identify curricular/programmatic opportunities for collaboration/connections between Architecture and Landscape Architecture
- Identify additional opportunities to build collaboration/connections between Architecture and Landscape Architecture
- Strengthen our significance and reputation in design-related scholarship
- Strengthen our significance and reputation in design-related role of technology
- Inclusiveness [Provide open, ongoing, collaborative processes to increase spatial collaboration]
- Openness [Identify and reduce barriers to spatial collaboration]
- Flexibility [Create flexibility in collaborative spaces to use the building as efficiently as possible]
- Provide high quality and efficient staff support for both units and SALA
- Secure resources to support SALA programs

The Strategic Plan developed by the Architecture Department not only incorporates many of the goals of the institutional plans, but also identifies further objectives that respond to the nature and state of architectural education today:

- Produce substantive design scholarship through research and creative accomplishment.
- Build on our excellent, student-centered program.
- Strengthen graduate education.
- Enhance visibility, ranking and reputation through targeted marketing.
- Analyze, assess and reformat Stuckeman Family Building to promote flexible, open and shared equitable use of the facility to promote increased instructional flexibility/efficiency, intensified research focus for faculty, community interaction and curricular nimbleness.

2014 Department of Architecture Strategic Plan (Included in Section 4—Supplemental Info)

Role of Five Perspectives in Long-Range Planning

The long-range planning of the Department of Architecture is consistent with the University, College and Stuckeman Strategic Plans. The goals and strategies identified in these plans and their relationship to the five perspectives are briefly discussed below:

Collaboration and Leadership: The program must describe its culture for successful individual and team dynamics, collaborative experiences and opportunities for leadership roles.

The Stuckeman School of Architecture and Landscape Architecture at Penn State was founded on the principle of collaboration and leadership. Collaboration has been expressed through bringing together two independent departments, both with a mission of design excellence. Leadership is expressed through our

goal of national prominence. Our Strategic Plan, in turn, recognizes the value and the strength of collaborative research and the associated enhanced visibility. Our focus on graduate education highlights collaboration among faculty and students through the establishment of four research clusters in “Culture, Society, and Space”, “Design Computing”, “Material Matters”, and “Sustainability”. Through these research clusters, faculty and students work in teams, often across clusters, to produce design scholarship and publications. Our recent record shows significant accomplishments in these areas.

In addition, faculty and students use existing opportunities for critical exchange and collaboration between related disciplines in the University. The Stuckeman School Strategic Plan embodies the importance of scholarship in order to strengthen our significance and reputation in design-related fields, including the role of technology. The Department’s Strategic Plan acknowledges the complexities of contemporary architecture, and seeks to enhance the quality of the program through faculty pursuits in research and creative achievements. Strategies toward increasing the role of research, creative, and professional activity in the department, include: decreasing demands on faculty time for departmental service assignments, realigning teaching obligations in order to better accommodate faculty interests in the studio and classroom, and increasing support and incentives for faculty who seek external research funding. Our graduate program has cultivated new synergies in educational and research endeavors within the University, and will further enhance our ability to advocate design education as a powerful paradigm for synthesizing knowledge in teaching, research, scholarship, and outreach. The underlying spirit of long-range planning is to support liberal education through architecture, and continue to explore new and innovative models of professional and post-professional education at Penn State. In this context, two recent student-organized national conferences, “The Nature of Spatial Practices” and the Quad Conference “From Bytes to Built,” by the AIAS are extremely encouraging.

Design: The program must describe its approach to developing graduates with an understanding of design as a multidimensional process involving problem resolution and the discovery of new opportunities that will create value.

Acquiring design skills in a changing context requires critical thinking skills, while instilling the desire for lifelong learning demands strategies to prepare students to thrive in a global and diverse environment. The Stuckeman School Strategic plan states “collaborating with an increasingly diverse range of professionals, communities, and individuals, we (students, alumni, staff, and faculty) aspire to become global citizens participating in the discovery and making of responsible living environments.” The plan envisages design engagement that more effectively integrates our students, our service, and our scholarship within the global community. This must expand beyond traditional programs, and emphasize the challenges beyond comfortable borders through increased travel programs and alternative studio sites, through connecting to international research communities and external funding, and through addressing universal problems, achieving international excellence, and pursuing intra- and inter-institutional dissemination and sponsorship of experiences. In this context, all five of our strategic initiatives feed directly into “Design” as a complex and multi-dimensional process that is about a particular type of problem-solving, one that is invested in ideas and concepts that add value to our daily lives within a democratic and civil society.

Professional Opportunity: The program must describe its approach for educating students on the breadth of professional opportunities and career paths, including the transition to internship and licensure.

The architecture program at Penn State is structured to prepare students with the theoretical background, professional, and practical skills necessary to become licensed architects in a fast-changing world. There is one University goal that directly supports this perspective: “Realize Penn State’s Potential as a Global University”. The Stuckeman School and Department strategic plans offer specific approaches and information in this area. The University affords all necessary support to the Department in complying with AXP and NCARB requirements. The Department, in turn, provides wide-ranging annual reviews of accreditation status and compliance with all conditions and procedures. The Stuckeman School strategic plan stresses the vital need to advance a vision that addresses increasingly complex problems in a global

world, and consistent with the AIA, NCARB, and other professional regulatory architectural organizations in general. The Department plan calls for recognizing the necessity to enhance students' readiness to contribute to a global marketplace of ideas and innovation through vigorous pursuit of international professional partnerships, faculty exchanges, and study abroad. The Stuckeman School Strategic Plan dwells on the imperative need to identify additional opportunities to build collaboration or connections between Architecture, Landscape Architecture, and other allied disciplines. This perspective is particularly useful in incorporating the professional community into the long-range planning process. Departmental Strategic Plan goals and initiatives in this area are multifaceted and include developing alumni relations, close interaction with the professional advisory boards, and lectures on critical architectural practice vis-à-vis diverse communities and the role of design in shaping the built environment in this context. To this end, the Stuckeman Endowment has an implied mandate to work closely with professional bodies such as the AIA and ASLA. The Stuckeman School Career Day provides a useful forum to faculty and students for interaction with the profession. The Stuckeman School Professional Advisory Board, which comprises faculty, practitioners, and students from architecture, landscape architecture, planning, and Graphic Design, has become an additional resource for the architecture program.

Stewardship of the Environment: The program must describe its approach to developing graduates who are prepared to both understand and take responsibility for stewardship of the environment and natural resources.

One of the goals of the Stuckeman School Strategic Plan points directly to this matter: "To promote the sustainability and improvement of the quality of life in the built and natural environment". In addition, two of the Department's five points, "Strengthen Graduate Education", and "Produce substantive design scholarship through research and creative accomplishment" enhance the students' engagement in environmental stewardship. As a part of our graduate enhancement, we have created a research cluster in the area of "Sustainability." This research cluster influences the education of our students both directly through courses, and indirectly, through student involvement in the production of research. We have had multiple co-authored papers in the sustainability cluster, as well as student and faculty presentations at national conferences. Our team won awards for "Design Integration" and "Systems Integration" in the Department of Energy's "Race to Zero" 2015 residential design competition and we won first place for suburban single-family housing in the 2018 competition. In addition, as a part of our Strategic Plan that ended in 2014, we strove to incorporate sustainability in all of our classes. Having accomplished this, the new Strategic Plan includes sustainability under "Build on our excellent student-centered curriculum". This is significant, in that it interweaves environmental stewardship into every aspect of our lives, not merely into a class on sustainability. In effect, we are teaching environmental stewardship in our theory courses, in our programming sessions in studio, and in our courses in structural and environmental systems. Stewardship of the environment has thus become a foundational tenet of our program.

Community and Social Responsibility: The program must describe its approach to developing graduates who are prepared to be active, engaged citizens able to understand what it means to be professional members of society and to act ethically on that understanding.

The University's two goals of "Maintain Access, Affordability and Enhance Diversity" and "Serve the People of the Commonwealth and Beyond," relate closely to this perspective. The College Strategic Plan echoes this spirit by reiterating that one of its primary goals is to "Enrich the lives of the University and the region by celebrating and disseminating the arts through our commitment to outreach." The Stuckeman School Strategic Plan embodies the importance of identifying curricular or programmatic opportunities for collaboration and connections between Architecture and Landscape Architecture, as well as beyond the School and College. The intent is to strengthen our significance and reputation in design-related scholarship and the design-related role of technology. There is considerable emphasis on increasing the gender, ethnic, racial, economic and cultural diversity of the school. This must expand beyond traditional programs and highlight the challenges beyond comfortable borders through increased travel programs and alternative studio sites, connecting to international research communities and external funding, addressing universal problems, achieving international excellence, and pursuing intra- and inter-

institutional dissemination and sponsorship of experiences. The Stuckeman School Hamer Center for Community Design Assistance has been an effective means of engaging architecture students in service learning opportunities. The Departmental plan stresses the need to increase educational opportunities that expose students to diverse cultural conditions. Another area that the plan underscores is promoting sustainability and stewardship of the built environment and the need to educate our students to become environmentally conscious designers, architects, and citizens.

I.1.6 Assessment

I.1.6.A Program Self-Assessment

Self-assessment at Penn State is a continuous process that occurs at the University, College, and Department levels. Self-assessment begins with the University strategic plan. The University follows a five-year planning cycle and, as mentioned in the Long Range Planning section, this mandates strategic planning cycles at the College and the Department levels. In addition, since the formation of the Stuckeman School, the School and its two departments have engaged in off-cycle planning. The current strategic plan, which became official in July of 2015, encompassed the two departments as well as the School and the Endowment.

At the Department level, self-assessment is based on consistent reviews of curriculum, promotion and tenure procedures, search processes, lectures, exhibitions and symposia, and facilities planning via a committee structure that includes faculty, staff, and students. In addition, formal performance reviews of staff and faculty, as well as student evaluations of faculty teaching, constitute an important part of our self-assessment procedures. The Department uses the preparation process for the APR as an opportunity to generate and augment critical data for self-assessment. To this end, surveys are used as an instrument to gather important information from both students and alumni about the overall effectiveness of the Architecture Department.

The following is a list of Self-Assessment Procedures used by the Department of Architecture, College of Arts and Architecture, and the University. Where possible we have included a description of the type of data these procedures are intended to provide.

Department-Level Forms of Self-Assessment

Public Studio Reviews and Public Exhibitions of Student Work: Our faculty members regularly serve as guest critics for other studios. Also, the openness of the building and our frequent displays of student work allow for all faculty and students to easily view the performance of students in all studios. This general awareness of the quality of work throughout the Department and School is an informal but effective method of continual self-assessment.

NAAB Annual Reports and Accreditation Visits: These processes have been and will remain the catalyst for significant self-assessment, changes, and enhancements to the Architecture program at Penn State.

Alumni Survey: The department solicited input from graduates of the M.Arch. program through an alumni survey. The questions focus on overall quality of the program and how well the Penn State degree prepared graduates for a professional career in architecture. The survey also collects information on professional status of alumni after graduating from the program. The survey helps the Department target areas that need attention, and further develop those that are strong. In addition, the Department Head and the Director of Graduate Studies regularly meet with students to solicit ideas, and encourage conversations, and critiques. We find these venues critical in day-to-day improvements to the program.

Student Survey: The Department is consistently making changes and adjustments to enhance the quality of the curriculum, advising process, and facilities. In addition to year-level class meetings with administrators and faculty, the anonymous student survey allows the department to obtain systematic information about the program from the students' perspective. The survey questionnaire is based on five themes critical to the quality of the architecture program: curriculum, advising, facilities, student

participation, and diversity. Questions provide both quantitative data about specific issues of interest and qualitative assessment related to the five themes. The responses are a useful tool for the Department to address students' issues and their perceptions of the architecture program and become an integral part of departmental discussions and policy making.

Both surveys are included in Section 4-Supplemental Information.

In the 2018 student survey, most students expressed great satisfaction in regards to the facilities at the Stuckeman Family Building. They emphasized particularly the model shop, the library, and the studio spaces.

The university mandates a "Student Rating of Teaching Effectiveness" survey filed by students for each course in which they enroll. These ratings form a part of the assessment of our curriculum and its delivery. These student ratings are assessed annually by the Department Head, and periodically through the Promotion and Tenure Committee.

The Architecture Alumni Group: The Board of Directors of this group meets at least twice per year on campus. This group serves as a type of Advisory Board to the Department. The current membership of the board is:

Frank E. Dittenhafer II (1978)
Jessica Malarik Fair (2004)
Kyle Fauth (2007)
Matthew Graham (2012)
Bob Holland (1973)
Maria Hurtado (2017)
Peter Margittai (1993)
Robert McClure (2000)
Sara Petit (2009)
Marilia B. Rodrigues (2002)
David Schrader (1991)

Ex-Officio Board Members

Department of Architecture Head | Mehrdad Hadighi
Faculty Representative | Loukas Kalisperis
Alumni Director | Joyce Hoffman
Stuckeman School Director | Kelleann Foster

Stuckeman School Professional Advisory Board: This group comprises faculty, practitioners, and students from Architecture, Landscape Architecture, and Graphic Design and has become an additional resource for the architecture program. The intent of this Board is to broadly address the current state of the design professions and its implications for curricula in the School. The Advisory Board's meetings have been productive and have focused on listening and learning about the Stuckeman School.

Department Faculty Meetings: The entire faculty of the Department meets approximately once a month. This is an open forum for discussion, committee reports, and decision-making, chaired by the Department Head. The Department Head proposes agenda items, both informational and propositional, for discussion and action, to which faculty contribute. All proposals from the Curriculum Committee and most other committees must be distributed in written form prior to the meeting, and are then discussed and voted upon by the faculty as a whole. (Only tenured or tenure-track faculty vote on matters pertaining to tenure policy or curricular changes.) Minutes of the meetings are distributed prior to the next meeting.

Annual Faculty Performance Evaluations: All faculty not undergoing a periodic Promotion and Tenure Review are evaluated by the Department Head on an annual basis through a department annual report.

Curriculum Committee: Please see B. below.

Advising: Graduate advising is conducted through the Director of the Graduate Program and the Department Head. The Department and the Graduate School track student progress, collect statistics on incoming student characteristics (national test scores, GPA, minority status, how the student entered the program, etc.), identify “problem areas” in our admission requirements and processes, course sequence, or our curriculum, and then propose solutions to these areas.

Design Studio Coordinators’ Committee: The faculty members of the Coordinator’s Committee are appointed annually by the Department Head, and include the Coordinators of each design studio year level. The Committee conducts reviews of studio project proposals, coordinates studio schedules, monitors conformance with the NAAB Student Performance Criteria and the Department’s Studio Culture Policy, makes studio facilities recommendations, and advises the Head on other issues related to the design studio sequence. The responsibilities of the Design Studio Coordinators are as follows:

- Meet regularly with studio faculty to coordinate the development of appropriate statements of pedagogical intent for the studio year level, which are then developed as studio project programs, semester project schedules, jury dates, reading lists, research materials and shared presentation requirements for each semester’s studio.
- Participate as a member of the Coordinator’s Committee; to collect and coordinate all individual faculty studio programs, submitting them prior to the start of the semester for inclusion in the course binders maintained in the main Department administrative office.
- Coordinate the work and schedule of the studios with that of parallel courses, endeavoring not only to avoid conflicting due dates, but also to maximize the potential benefits between courses. This requires coordinating the use of limited facilities (such as the model shop, laser cutter, plotters and other “output devices”) to avoid conflicts with other studios and courses.
- Coordinate the work of the faculty assigned to the studio year level; coordinate and lead discussion among the year level studio faculty regarding common grading standards, NAAB Student Performance Criteria, and measures of student progress.
- Coordinate the selection and mounting of exhibitions of studio work each semester, as well as organize and supervise the end-of-semester juries and exhibits of design studio projects.
- Coordinate with the Department’s archivist for the archiving of selected projects from each studio section at the end of each semester, as well as the compilation of the written materials utilized in the course.

Facilities Committee: This committee performs regular reviews of Department and School facilities and makes recommendations to the School Director for changes and improvements. A detailed list of facility improvements is prepared each spring, and most improvements are accomplished over the summer months, when the building is relatively empty.

Computing/Technology Committee: The purpose of this committee is to make recommendations to the Department Head regarding strategic directions in technology use as they affect teaching, practice, faculty research, etc. The committee also monitors student usage of existing technology and makes recommendations for annual purchases and advises the Department Head on the use of funds from the Stuckeman Endowment for Design Computing.

The Career Fair: The steady growth in the number of firms participating in the Career Fair gives one indication of the demand for our graduates. The participating firms present their work, and also provide constructive criticism of our students’ work, the quality of their resumes and portfolios, interview skills, our curriculum, etc. In 2018, 64 firms attended the career fair.

NCARB Architecture Registration Examination Pass Rates: The NCARB data for ARE pass rates by school is periodically reviewed to determine if there may be particular areas of professional knowledge pertinent to the ARE that our curriculum is not addressing.

Benchmarking: The Department Curriculum Committee conducts benchmarking as part of its research for proposed curricular changes. It has explored faculty-student ratios, program size, program budget, etc.

The Archive of Student Work: The archive is an ongoing means by which we measure the work of students over the years.

The Student Representatives: The student representatives have regular monthly meetings with the Department Head. This provides the Department with regular feedback on a variety of issues important to students.

The Course Binders: These are maintained and reviewed constantly, not just for NAAB visits. They serve as a resource for new faculty, for the curriculum committee, for academic advisors, and others who need to have detailed information regarding course content.

I.1.6.B Curriculum Assessment and Development

The faculty members of the Curriculum Committee are appointed annually by the Department Head. The Director of the Graduate Program is a member of the committee. The Curriculum Committee continually conducts rigorous evaluations of the curricula, and proposes revisions to the curricula when necessary to address changes in architectural practice, educational philosophy, building, design, and teaching technologies, changes in University policy, etc. Major modifications to the curricula and all new courses are voted on and forwarded to the full architecture faculty for approval. Where required, curricular changes approved at the Department level are followed by a proposal to the University Faculty Senate. The Senate Proposals are reviewed at the College level for conformance with University policy and College goals, and are then forwarded to the Senate Committee on Curricular Affairs. This committee has the final decision on all curricular decisions in the University.

Section 2. Progress since the Previous Visit

Program Response to Conditions Not Met
Program Response to Causes of Concern
Program Response to Change in Conditions (if applicable)

In Fall 2016, we had a successful initial accreditation visit. The VTR documented four conditions/SPC's "not met." Two of these items were also "not met" in the previous (2015) continuation of candidacy visit. They are noted below. Each item is listed below with a description of progress to date:

Progress Since the Previous Site Visit (2015)

2009 Criterion B.1, Pre-Design: Ability to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

Previous Team Report (2015): ARCH 536 Design Inquiry is still in process. There is some evidence of this ability in the course, but not an extensive amount.

2016 Visiting Team Assessment: In ARCH 533 Architectural Design III, ARCH 534 Architectural Design IV, and ARCH 536 Design Inquiry, no single project demonstrated all of the required Pre-Design criteria. This criterion is Not Met.

This criterion was designed to be met in our first semester of the third year studios (ARCH 536,) as a part of a year-long comprehensive project. We have since added ARCH 519 as a required course to aid specifically in meeting this criterion. In addition, the following steps have been taken in third-year design studio:

1. The syllabus now includes three additional requirements for students in the first half of the fall semester that address and emphasize the importance of pre-design: a "proto-model," a "situation model," and a "revised situation model." These new requirements are designed to tie together the conditions, constraints, and implications that are critical for the project's comprehensible program.
2. Students are required to specifically address the different areas pertaining to "pre-design" which will reflect in a final semester document that encompasses criteria and rationale of the project together with the design proposition. Among these categories are an inventory of spaces and their requirements; an analysis of site conditions that include existing buildings; a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.

2009 II.4.5 ARE Pass Rates: Annually, the National Council of Architectural Registration Boards publishes pass rates for each section of the Architect Registration Examination by institution. This information is considered to be useful to parents and prospective students as part of their planning for higher/post-secondary education. Therefore, programs are required to make this information available to current and prospective students and their parents either by publishing the annual results or by linking their website to the results.

Previous Team Report (2015): As the program is in candidacy status, it has not yet graduated its first cohort.

2016 Visiting Team Assessment: The program's first cohort graduated in May 2016; no graduates are yet eligible to sit for the AREs.

The first cohort of this program is not yet eligible to sit for the ARE. At the point when our alumni can start taking the exam, we will be able to provide the pass rates. It is important to highlight that our B.Arch pass rates are available and document a very strong record.

B.8. Building Materials and Assemblies: The team was unable to find evidence of understanding of the environmental impact and reuse of materials in our "Materials and Methods of Construction" courses.

We have since added content to these courses (ARCH 503, and ARCH 504) in order to address this issue.

C.3. Integrative Design: The team was unable to find consistent evidence of this criterion in the student work presented for ARCH 534 and 480.

We have distributed the content necessary for an integrative project to ARCH 532, 533, as well as 534 and 480. In this manner, the students are better able to integrate complex systems with accessibility, site conditions, and life safety.

Section 3 Compliance with the Conditions for Accreditation

I.2.1 Human Resources and Human Resource Development

The Department of Architecture and the Department of Landscape Architecture, two independent departments in the College of Arts and Architecture, together formed the School of Architecture and Landscape Architecture in 1997. The Stuckeman Endowment, and the completion of the Stuckeman Family Building that houses the operations of both departments, promoted cooperation and joint efforts between the departments under a newly named Stuckeman School of Architecture and Landscape Architecture. The School's current director, Kelleann Foster, has continued to refine the school's governance structure to reflect the director position, which was added in 2010. In the attached "Stuckeman School Governance Document," included in Section 4-Supplemental Information, you will see results of this ongoing effort. The departmental operations and its governance have remained intact throughout the transition.

The M.Arch. program operates within the same governance structure under the umbrella of the Department of Architecture. Department of Architecture graduate faculty are not isolated, rather they are a part of the department's larger group of faculty. Graduate School policies govern the selection of graduate faculty, who have opportunities to teach in the graduate and the undergraduate programs alike. Graduate students, as well, have access to the same governance structure and opportunities as undergraduates, such as having student representatives and being members of committees.

The Stuckeman School is home to approximately 500 students, 310 of whom are in the Department of Architecture. Given that the professional M.Arch. program has joined our three other programs – the professional accredited B.Arch., the post-professional M.S., and the PhD – it shares many of the same resources. Our goal is to have 10 students in each cohort of the M.Arch. degree program for a total of 30 students in residence at any given time. This cohort would combine with the cohort of 10-12 students in the M.S. and the PhD programs. The combined number of graduate students in residence is expected to reach 50–60, a number we consider both viable and desirable.

Faculty

Over 30 faculty members are based in the architecture program, six of whom are in visiting or adjunct positions. Seventeen architecture faculty members are tenured and seven are full professors. Please refer to the following chart on tenure and promotion. See Penn State Policy [HR23](#) for promotion and tenure policy.

STANDING APPOINTMENT	LAST	FIRST	TITLE
	AESCHBACHER	PETER	ASSOC PROF ARCHITECTURE /LANDSCAPE ARCHITECTURE
	AVILES	LUIS	ASST PROF ARCHITECTURE
	BELCHER	NATHANIEL	PROFESSOR ARCHITECTURE
	COOPER	JAMES	ASSOC PROF ARCHITECTURE
	COSTANZO	DENISE	ASST PROF ARCHITECTURE
	DAVIS	FELICIA	ASST PROF ARCHITECTURE
	DUARTE	JOSE	PROFESSOR ARCHITECTURE
	GORBY	CHRISTINE	ASSOC PROF ARCHITECTURE
	GURSOY	BENAY	ASST PROF ARCHITECTURE
	HADIGHI	MEHRDAD	DEPARTMENT HEAD
	HAIDER	JAWAID	PROFESSOR ARCHITECTURE
	HENN	REBECCA	ASSOC PROF ARCHITECTURE
	IULO	LISA	ASSOC PROF ARCHITECTURE
	KALISPERIS	LOUKAS	PROFESSOR ARCHITECTURE
	KALSBECK	JAMES	ASSOC PROF ARCHITECTURE
	LINDBERG	DARLA	PROFESSOR ARCHITECTURE
	MURAMOTO	KATSUHIKO	ASSOC PROF ARCHITECTURE
	OSSEO-ASARE	DK	ASST PROF ARCHITECTURE / SCHOOL OF ENGINEERING DESIGN
	POERSCHKE	UTE	PROFFESOR ARCHITECTURE
	RIBOT	ALMUDENA	ASST PROF ARCHITECRTURE
	SHAFFER	MARCUS	ASSOC PROF ARCHITECTURE
	STAUB	ALEXANDRA	ASSOC PROF ARCHITECTURE
	WILLIS	DANIEL	PROFESSOR ARCHITECTURE
	WINES	JAMES	PROFESSOR ARCHITECTURE
	WING	SCOTT	ASSOC PROF ARCHITECTURE
Total			25
Multi-Year Fixed Term	LAST	FIRST	TITLE
	ABBAS	YASMINE	ASST PROF ARCHITECTURE
	BRAASCH	CATHY	ASST PROF ARCHITECTURE
	CELMA	LAIA	ASST PROF ARCHITECTURE
	NAZARIAN	SHADI	ASSOC PROF ARCHITECTURE
	SUTHERLAND	ERIC	PROFESSOR OF PRACTICE
Total			5
Annual Fixed Term	LAST	FIRST	TITLE
	AVILES	REGGIE	INSTRUCTOR ARCHITECTURE
	ENDRESEN	KATIE	INSTRUCTOR ARCHITECTURE
	GROENENDAAL	DENSON	INSTRUCTOR ARCHITECTURE
	WASHESKY	LEE	INSTRUCTOR ARCHITECTURE
	WEINREB	ROSS	INSTRUCTOR ARCHITECTURE
	WOOLLEN	MALCOLM	INSTRUCTOR ARCHITECTURE
Total			5

Matrix for Architecture Faculty Credentials

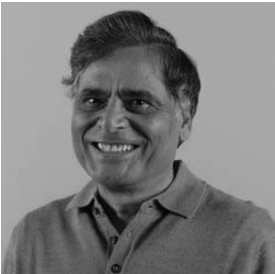
(Please see Faculty Resumes included in Section 4-Supplemental Information.)

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Abbas, Yasmine Assistant Teaching Professor 	Mobility, digital culture and augmented place-making, with current focus on fabricating atmospheres, generative mapping, cartography and the computational design of ambiance. Design consulting experience includes work with ReD Associates (Denmark), Steelcase ARC (France) and Masdar City (UAE) as Environmental Sociologist.	ARCH 497: Atmospheres	ARCH 431: Architectural Design V ARCH 432: Architectural Design VI ARCH 497: Atmospheres
Aeschbacher, Peter Associate Professor 	The practice and history of community design; University-Community partnerships; small parks, public space, and everyday urbanism. Worked closely with marginal populations, including community-based projects for at-risk youth in Los Angeles; worked on community projects in South Africa.	ARCH 210: Introduction to Architecture and Planning Theories A&A 121: Design Thinking	A&A 121: Design Thinking

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Aviles, Pep Assistant Professor 	Cultural territories of architectural materials and specifically, their role in the redefinition of modern architecture from the 1930s. Extensive international publications and curated exhibitions on modern architecture and mass media. Licensed Architect: SPAIN	ARCH 491/536: Architectural Design Studio ARCH 520: Methods of Inquiry in Architecture and Urban Design ARCH 502: Analysis of Architectural Precedents: Modernism	ARCH 519: Research in Architecture and Urban Design ARCH 491/492H/536: Architectural Design Studio ARCH 502: Analysis of Architectural Precedents: Modernism
Belcher, Nathaniel Quincy Professor 	Brazilian architecture and modernism; avant-garde practices in diverse cultures; African American architecture, urbanism, artifacts and culture. Licensed Architect: PA, FL, LA, OH	ARCH 431: Architectural Design V ARCH 432: Architectural Design VI ARCH 480: Technical Systems Integration	ARCH 431: Architectural Design V ARCH 432: Architectural Design VI ARCH 480: Technical Systems Integration
Boothby, Thomas E., P.E., PhD. R.A. Professor 	Architect/Structural Engineer, Wilson and Company, Albuquerque, NM, 1986-89; <i>Stone and Iron In the Gilded Age: American Structural Design from 1870 to 1900</i> . To appear in 2014, ASCE Press, Washington DC. Licensed Architect: PA, WA Professional Engineer: PA, CA, NM, MD, WA, NJ	AE 422: Architectural Structural Systems II AE 308: Fundamentals of Structural Analysis AE 401: Steel and Wood Design AE 497A: Ancient and Medieval Structural Design AE 597B: Historical Methods of Structural Design	AE 422: Architectural Structural Systems II AE 308: Fundamentals of Structural Analysis AE 401: Steel and Wood Design AE 497A: Ancient and Medieval Structural Design AE 597B: Historical Methods of Structural Design

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Braasch, Cathy Assistant Professor 	Intersection of architectural design and urban landscape, duration and creative production in built environment; Founder, Braasch Architecture 2006-present; Associate, Stoss Landscape Urbanism 2010-2012; Licensed Architect: NY, PA, NCARB	ARCH 131: Basic Design Studio I ARCH 132: Basic Design Studio II ARCH 522: Visual Communications II	ARCH 131: Basic Design Studio I ARCH 132: Basic Design Studio II ARCH 521: Visual Communications I ARCH 522: Visual Communications II
Celma, Laia Assistant Professor 	Architect and co-founder of The Fautory, a collaborative architectural platform with ongoing projects in Chile, Barcelona, and New York. FAD “Professional en Incubacio” award (2010), in Barcelona, Spain. Licensed Architect: SPAIN	ARCH 331: Architectural Design III ARCH 480: Technical Systems Integration ARCH 532: Architectural Design II	ARCH 231: Architectural Design I ARCH 480: Technical Systems Integration ARCH 532: Architectural Design II
Cooper, James G., PhD Associate Professor 	Michelangelo and his architecture, drawing and precedent; architectural and urban design of fin-de-siecle Vienna; and the works of Mies van der Rohe. Articles published in Architectural History journals.	ARCH 121: Visual Communications ARCH 231: Architectural Design I ARCH 232: Architectural Design II	ARCH 121: Visual Communications Art History 201: Ancient to Medieval Architecture ARCH 232: Architectural Design II

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Costanzo, Denise R. Assistant Professor 	History of architecture, architectural practice, education, and discourse since 1900. Publications in various architectural journals and books.	Recipient of a 2014 Rome Prize Fellowship in Modern Italian Studies from the American Academy in Rome.	ARCH 210: Introduction to Architecture and Planning Theories ARCH 511: Theoretical Perspectives in Architecture ARCH 501: Analysis of Architectural Precedents
Davis, Felecia Assistant Professor 	Development of lightweight textile structures including structures and objects made with computational textiles. Lectured, published and exhibited her work in textiles, computation and architecture internationally	ARCH 531: Architectural Design I ARCH 497: Inquiry Into Design Computing ARCH 232: Architectural Design II	ARCH 531: Architectural Design I ARCH 497: Inquiry Into Design Computing ARCH 232: Architectural Design II
Duarte, Jose Pinto Stuckeman Chair in Design Innovation; Director of the Stuckeman Center for Design Computing 	Stuckeman Chair in Design Innovation and director of the Stuckeman Center for Design Computing (SCDC). An accomplished scholar with a record of innovative leadership, Duarte guides the ongoing research and direction of the SCDC.	ARCH 491: Architectural Design Studio ARCH 497: Introduction to Shape Grammars	ARCH 497: Introduction to Shape Grammars ARCH 536: Architectural Design Studio

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Gorby, Christine Associate Professor 	Design, history, and theory in the built environment; gender studies. Licensed: R.I.B.A., A.R.C.U.K	ARCH 316: Human Settlements and Cities ARCH 311W: Architectural and Planning Theories	ARCH 316: Human Settlements and Cities ARCH 311W: Architectural and Planning Theories
Gursoy Toykoc, Benay Assistant Professor 	Computational making, digital fabrication, craft theory, shape studies, basic design education, and cognitive studies of the design process. Numerous international publications and research presentations.	ARCH 231: Architectural Design I ARCH 497: Hacking: Materials/Production ARCH 232: Architectural Design II ARCH 122: Visual Communications II	ARCH 122: Visual Communications I ARCH 497: Hacking: Materials/Production ARCH 131: Basic Design Studio I ARCH 132: Basic Design Studio II
Hadighi, Mehrdad Head, Professor 	Drawing parallels between 20 th century art, theory and criticism and the constructive principles of architecture. Publications in various architectural journals. Licensed Architect: NY	Department Head	Sabbatical
Haider, Jawaid Professor 	Design for children; architectural design education; comparative theoretical perspectives in architecture. Scholarly publications and research grants in areas of interest. Licensed Architect: PAKISTAN	On Leave	ARCH 491/492H/536: Architectural Design Studio

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Henn, Rebecca L. Associate Professor 	Studies industry drivers of green building. Principal, Celento Henn Architects + Designers; Published book titled “Constructing Green: The Social Structures of Sustainability” (MIT Press 2013), with Andrew J. Hoffman. Licensed Architect: NY, PA	ARCH 311W: Architectural and Planning Theories ARCH 533: Architectural Design III	ARCH 533: Architectural Design III
Iulo, Lisa D., Associate Professor 	Building and planning for a sustainable future. Publications in sustainability-themed journals; Forum presentation at American Solar Energy Society annual conference, 2013. Licensed Architect: NJ, NY, PA Licensed Professional Planner: NJ	ARCH 431: Architectural Design IV ARCH 432: Architectural Design V	ARCH 412: Integrative Energy and Environmental Design ARCH 491: Architectural Design Studio
Kalisperis, Loukas Professor 	Integrating digital technology in design; digital design representation and fabrication techniques. Publications in architectural journals in the U.S., U.K., Greece, and Spain. Licensed Architect: GREECE	ARCH 491/492H/536: Architectural Design Studio ARCH 481: Digital Design Media ARCH 512A: Doctoral Research Theory	ARCH 231: Architectural Design I ARCH 512A: Doctoral Research Theory Sabbatical-Spring 2019

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Muramoto, Katsuhiko Associate Professor 	History and theory of architectural representation; design-build architecture; history and theory of 20 th century Japanese architecture. Co-founder of architectural design studio, Cover, LLC Licensed Architect: JAPAN	ARCH 317: Theory of Modern Japanese Architecture ARCH 331: Architectural Design III ARCH 332: Architectural Design IV	ARCH 317: Theory of Modern Japanese Architecture ARCH 331: Architectural Design III ARCH 332: Architectural Design IV
Nazarian, Shadi Associate Professor 	Glass Science and Technology; light emitting fibers and polymers that provide alternative readings of surfaces and spaces. “Introversions”: a multimedia, interactive & site-specific installation at the CFA Amherst-NY concerning the threshold of vision and perception, of real and virtual, of art, architecture, and technology (2008)	ARCH 491: Architectural Design Studio ARCH 232: Architectural Design II ARCH 497: Liquid Threshold	ARCH 491/492H/536: Architectural Design Studio 497: Liquid Threshold
Osseo-Assare, DK Assistant Professor of Architecture and Engineering Design 	Director of the Humanitarian Materials Lab and Associate Director of AESEDA, Penn State's Alliance for Education, Science, Engineering and Design with Africa. Co-founder and principal of architecture and integrated design studio Low Design Office (LOWDO).	ARCH 497: Education Architecture	ARCH 231: Architectural Design I ARCH 232: Architectural Design II

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Parfitt, Kevin M. Professor 	Building performance and failures; forensic techniques; structural engineering; computer-aided design; automated quality control; professional practice. P/L Consulting Engineers, State College, PA, 1984-2001; "Why Buildings Fail: Are We Learning From Our Mistakes?" Buildings - Special Issue on Building Failures, Vol 2, no. 3: 326-331 (Sept. 2012). Professional Engineer: PA, NY, NJ, MD, VA, OH	AE 210: Architectural Structures I	AE 210: Architectural Structures I
Poerschke, Ute, Professor 	Architectural design as a process of integration; theory of functionalism; relationship of architecture and technology; energy simulation as part of the design process. <i>Functions and Forms. On Architectural Theory of Modernism</i> Licensed Architect, Registered Urban Planner: Bavarian Chamber of Architects	ARCH 331: Architectural Design III ARCH 534: Architecture Design Studio IV ARCH 480: Technical Systems Integration	Interim Department Head

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Ribot, Almudena 	Industrialization, Customization and Environmental, Social and Economic Sustainability. Formerly Professor of Design at the School of Architecture ETSAM, Universidad Politecnica de Madrid. Since 1990, co director of Architecture Studio, with COAM Licensed Architect: SPAIN	New Hire 2018-2019	ARCH 331: Architectural Design III ARCH 497: Open System Architecture ARCH 332: Architectural Design IV ARCH 480: Technical Systems Integration
Shaffer, Marcus Associate Professor 	Works, theories, and practices that engage <i>the Machine</i> as an architectural extension of our impulse to examine and remake the natural world. “Rise Tectonic Machines! Construct the Exigent City!” (RISD Arch/ORO, 2013); “Developing Digi-mechanical Formwork for Construction in Environments of Displacement Machine” Book Vol. 1 (forthcoming)	ARCH 497: Architectural Metals ARCH 503: Materials and Building Construction I ARCH 204: Materials and Building Construction II ARCH 536: Architectural Design Studio	ARCH 204: Materials and Building Construction II ARCH 503: Materials and Building Construction I ARCH 131: Basic Design Studio I ARCH 132: Basic Design Studio II ARCH 497: Architectural Metals

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Staub, Alexandra Associate Professor 	The relationship between culture and the built environment, architecture and gender, ethics and the built environment. <i>Conflicted Identities: Housing and the Politics of Cultural Representation</i> (Routledge 2015); <i>The Routledge Companion to Modernity, Space and Gender</i> (Routledge 2018).	ARCH 231: Architectural Design I ARCH 550: Ethics in Architecture ARCH 520: Methods of Inquiry	ARCH 331: Architectural Design III ARCH 332: Architectural Design IV ARCH 520: Methods of Inquiry ARCH 550: Ethics in Architecture
Sutherland, Eric Practitioner Instructor 	Sutherland has worked as an illustrator for the auto industry including work on assembly lines and in fabrication shops. His early training came from this technical, hands-on perspective and he has tried to stay close to this mindset throughout his career. He has worked for 12 years in international architectural offices on projects in Europe, Asia and the Middle East.	ARCH 491/492H/536: Architectural Design Studio ARCH 203: Materials and Building Construction I ARCH 480: Technical Systems Integration	ARCH 203: Materials and Building Construction I ARCH 480: Technical Systems Integration ARCH 491: Architectural Design Studio ARCH 534: Architectural Design IV

Faculty Member	Summary of Expertise, Recent Research, or Experience	Courses Taught: Fall 2017 – Spring 2018	Courses Taught: Fall 2018 – Spring 2019
Willis, Dan Professor 	Relationship between architecture and technological change; theories of details and construction methods; theories of drawing and representation. “Architecture and Energy: Performance and Style”, ed.; Grant recipient: Department of Energy EEB Hub Grant. Licensed Architect: PA	ARCH 451: Architectural Professional Practice ARCH 497: Sustainable Urban Density ARCH 504: Materials II	ARCH 451: Architectural Professional Practice ARCH 491: Architectural Design Studio Sabbatical – Spring 2019
Wines, James Professor 	Lifetime Achievement, Cooper-Hewitt National Design Awards SITE founder/president; designed/built 150+ worldwide projects. 2011 ANCE Award for an International Architect (Italy).	On Leave	On Leave
Wing, Scott Associate Professor 	Bridging architectural technology and poetic intention from urban scales to the detail; learning by making through design/build; ethical dimensions of design. <i>Interdisciplinary Collaborative BIM Studio</i> , Publication in conference proceedings. Licensed Architect: PA	Associate Dean for Graduate and Undergraduate Education	Associate Dean for Graduate and Undergraduate Education

Faculty Workload

Faculty distribution of effort between teaching and other responsibilities varies with the individual faculty member, but on average 60% of their time is dedicated to teaching (and related preparation time), 30% to

research and creative activities, and 10% to service and community outreach. Since the 2004-2005 academic year, the Department of Architecture has retained an average of 24.33 FTE faculty. On average this figure includes 25 FTE tenure/tenure-track faculty, five multi-year full time fixed term faculty, two annual full time fixed term faculty, and four part-time instructors.

Faculty-Student Ratio

Our current Faculty/student ratio is primarily determined by the cohort size. Our current M.Arch. cohort is about 10 students in years one and two, and six in year three. We intend to maintain a cohort size of approximately 10 students per year.

Please see Section 4-Supplemental Information for the Teaching Assignment Course Matrix for Academic Years 2016/17, 2017/18, and 2018/19.

The ultimate goal is for some of the faculty workload in the undergraduate program to be transferred to graduate teaching assistants in their advanced years. The opportunity provided by the teaching assistantships will, in turn, assist in advancing the students' education and our recruitment possibilities. This year, we taught studios in the first year of the Architectural Engineering department with the aid of four of our graduate students. We have also engaged graduate students in teaching the first year architecture students, with great success.

Faculty and Staff Professional Development Opportunities

The Department of Architecture supports faculty development and provides funding for conference attendance and other development opportunities. Recently, with added emphasis on faculty research, creative activity, and publications, the department has significantly increased its financial support for faculty presentations. During the academic year 2017/18, we supported 16 faculty with funding to travel to conferences at a total of \$26,373.83. All faculty are encouraged to submit funding requests to the Department at the beginning of each semester, and all are reviewed collectively. During the past year, all requests were funded, most in full, and a few partial. In addition to the Department funding, the Department Head has committed an additional \$15,000 per year to support faculty publications from his Stuckeman Chair of Integrative Design.

All tenure-track faculty are eligible for a one-semester release from teaching during the tenure-track period. This release allows junior faculty to focus upon their research, creative work, or professional practice. Tenured faculty members with at least seven years of service to Penn State are eligible to apply for a one or two semester sabbatical leave. Professors granted a one-semester sabbatical receive their full salary during the sabbatical; those on a two-semester leave receive two-thirds of their regular salary.

It is the practice of the Department to assign teaching responsibilities and committee work in a way that permits faculty to pursue professional practice, research, or creative work. Faculty members may use external grant support or professional commissions to "buy out" of course assignments to pursue research/creative work. Faculty service on professional bodies, government or community boards, is encouraged. This service to the profession, society, and the University is evaluated during annual, and promotion and tenure reviews. The departmental service expectations for professors who engage in these activities, or who help to arrange and host conferences and symposia, are adjusted accordingly.

Support for faculty developing new courses is available in the form of College "Incentives and Innovations" grants. Support is also available for transforming traditional courses to web-based delivery methods through the College "eLearning" initiative, and through the University's World Campus and Campus Course Exchange. Innovative courses can also compete for support from the Bowers Program, the Stuckeman Endowment for Design Computing, Schreyer Honors College, and from the Institute for the Arts and Humanities.

Faculty research and creative work is supported by the College Faculty Research Grant program, and by grant programs of the Institute for the Arts and Humanities. The Stuckeman School offers many grant opportunities to faculty through the Hamer Center for Community Design Assistance and the Stuckeman Center for Design Computing. The Stuckeman School offers the following research grant opportunities to faculty through an internal competition every year:

- The H. Campbell and Eleanor R. Stuckeman Fund for **Collaborative Design Research** to promote collaboration in design innovation. The purposes of the Stuckeman Fund are: 1) to provide seed funds for projects of special promise, likely to achieve external support by agencies beyond Penn State; 2) to enhance funding from sources external to Penn State, and 3) to support research and scholarship efforts of faculty. Up to \$50,000 per project is available.
- The H. Campbell and Eleanor R. Stuckeman **Fund for Design Computing** promotes design research, theoretical investigations, and academic opportunities under the general heading of design computing. The purposes of the Stuckeman Fund are: 1) to provide seed funds for projects of special promise, likely to achieve external support by agencies beyond Penn State; 2) to enhance funding from sources external to Penn State, and 3) to support research and scholarship efforts of faculty. Up to \$50,000 per project is available.

The following tables show a sampling of Stuckeman School, Bowers Program (an endowment that funds collaborative projects in Architecture, Landscape Architecture, and Architectural Engineering), and College of Arts and Architecture grants that architecture faculty have secured in the past few years. The list is not exhaustive but signifies the faculty's widespread efforts to consistently engage in professional and research activities despite high teaching loads.

Project Title (Collaborative Design Research Faculty Grants)	Faculty	Fiscal Year	Budget
Using focus groups to refine the Irvine Minnesota inventory for youth	Bose	2009/10	\$2,927.45
Hybrid of Research and Exhibition	Baek/Muramoto	2009/10	\$11,200.01
Mapping Design Domains and Opportunities	Willis	2009/10	\$4,000.00
Vysehrad, Re-visions and recollections	Rusnak	2009/10	\$5,670.00
Building integrated wind energy: connecting aesthetics and performance	Poerschke	2010/11	\$9,104.06
Design/Praxis	Szczygiel	2010/11	\$5,000.00
Fabricated Landscapes	Burkholder	2011/12	\$5,500.00
IPD in Academia-Beyond Just Bim	Wing	2012/13	\$5,000.00
The Weight We Carry-The Hazardous Legacy of our Past and the Rehabilitation of Lead Contaminated Sites	Kalsbeek	2012/13	\$14,968.00
CROMA Analysis	Cardoso	2013/14	\$34,858.00
Digitize Portions of the A.E. Bye Landscape Architecture Archives (multi-year)	Henderson	2013/14	\$11,100.00
Digitize Portions of the A.E. Bye Landscape Architecture Archives (multi-year)	Henderson	2014/15	\$11,100.00
Sustainable Housing Initiative	Iulo/Belcher	2014/15	\$22,000.00
Visualizing Data on Climate, Energy Use & Arch	Muramoto	2014/15	\$20,700.00
For administrative reasons, no grants awarded 2015/16			
The Rio Studio	Duarte	2017/18	\$40,000.00
Landscape Culture and Community/ North Yucatan	Murtha	2017/18	\$36,500.00

Center for Ecological Design and Restoration	Cole	2017/18	
Building capacity for active living in Pittsburgh	Bose	2018/19	\$49,471.00

Project Title (Stuckeman Center for Design Computing Faculty Grants 2011-2018)	Faculty	Fiscal Year	Budget
National Beginning Design Student Conference	LaCoe	2011/12	\$16,000.00
Schoolyard Wetlands	Cole	2011/12	\$14,000.00
Anatomy of a Green-House: Teach Green with Augmented Reality at the Discovery Space of Central PA	Muramoto	2012/13	\$14,589.00
Stuckeman School Printing	La Coe	2013/14	\$6,514.00
Urban Design Studio: Approaches to Design Thinking using iPads	Pihlak	2013/14	\$12,152.00
Liquid Thresholds	Nazarian	2013/14	\$31,344.00
Builders of the Vision	Cardoso	2014/15	\$4,500.00
	Davis	2016/17	
Clay	Gursoy	2016/17	\$507.29
Light It Up	Gursoy	2016/17	\$426.67
	Gursoy	2017/18	

Project Title (Other Faculty Grants 2015-2018)	Faculty	Fiscal Year	Budget
RSB/Collaborative Research Sust. Bldg. Designs	Iulo and others	2015/16	\$849,189.00
College Incentives & Innovations Grant (Arch 311W)	Henn	2015/16	\$2,000.00
Modern Architects and the Postwar Rome Prize	Costanzo	2015/16	\$3,500.00
Preparing Illustrations and Designs for a Book Chapter on High-rise Residential Buildings and Urban Density	Willis	2015/16	\$650.00
College Incentives & Innovations Grant (Test Wearables)	Davis	2016/17	\$2,756.00
Wearable Water Filters	Davis	2016/17	\$7,500.00
Woven Light: Design of a Solar Fiber Tension Structure Shade Prototype Using Fiber Optic Strands	Davis	2016/17	\$19,904.00
Cultural Resource Preservation	Murtha /Iulo	2016/17	\$39,048.00
PSIEE	Belcher	2016/17	\$40,000.00
NCMA Student Design Competition	Cooper	2016/17	\$7,500.00
Comparative Landscape – Scale, W. Virginia	Murtha/Iulo	2017/18	\$24,287.00
Objects, Methods, and Outcomes of Architectural Theory	Poerschke	2017/18	\$3,565.00
College Incentives & Innovations Grant (Guidemap)	Aeschbacher	2017/18	\$2,600.00
Customized Sustainable Housing for Split	Duarte	2017/18	\$1,900.00
Combining Traditional Stone Crafting Techniques with Digital Technologies	Duarte	2017/18	\$1,900.00

Schreyer Institute for Teaching Excellence, "Explaining a New Kind of Police Station"	Woollen	2017/18	\$2,500.00
College of Arts & Architecture Faculty Research Grant, "Developing Robotic Formwork: Enhancing Plastic Materials Construction Systems through Digi-mechanical Mobility and Variability"	Shaffer	2017/18	\$9,265.00
College of Arts & Architecture Faculty Research Grant, "Exhibition of Keisuke Oka's Arimasuton-Biru	Muramoto	2017/18	\$3,843.00
College of Arts & Architecture Faculty Research Grant, "SPACECRAFT"	Osseo-Asare	2017/18	\$5,000.00
NCMA Student Design Competition	Cooper	2017/18	\$7500.00
Warp Knitted Fabrics with Light Emitting Fibers	Davis	2017/18	\$3712.00

In addition to research funding, continuing education opportunities are also available for faculty at Penn State. The University provides a 75% tuition discount for full-time employees and their immediate family members. Courses designed to improve faculty teaching are offered by the Center for Excellence in Learning and Teaching (CELT). Courses to assist faculty in mastering the University's web-based course-management system (Canvas) are offered at no charge. The Department provides substantial support for faculty participation in educational seminars directly related to an instructor's teaching or advising responsibilities.

Student Support Services

Consistent with Penn State's land-grant mission, University Office of Student Affairs assists in the general personal development of the student by offering services and programs that support and augment the formal classroom experience. Student Affairs services include personal and educational counseling, career development and placements, diagnosis and remediation of learning problems, general personal assistance, financial aid, and health services.

A multiday orientation program is conducted by the University, College, and the Department during each summer to assist with introductions and to impart basic information about the structure, goals, and objectives of the program. The students receive counseling from the Director of the Graduate Program and department faculty at this event.

The Department encourages close interaction between faculty, staff, and students. The Graduate Program Director serves as the advisor and organizes discussions among the graduate cohort and faculty. As they advance, students may select courses among offerings of our four research clusters, which brings them in contact with the faculty members associated with each of the four clusters and the research conducted by their students and faculty.

Design studio faculty members contribute to advising students informally. The Graduate School provides a wealth of resources to the graduate students and faculty on their website. All Graduate School policies related to students, faculty, thesis submissions, and remaining in good standing is available online. The Director of the Graduate Program is also an excellent resource for students seeking academic advice.

All faculty members play a significant role in career advising students by sharing portfolio and resume examples, and by making introductions through their connections with alumni, former employers and graduate programs. They also spend a significant amount of time counseling mid-career alumni, and writing letters of recommendation for students applying to graduate programs, internships or employment in architectural firms around the world. Resume and letter of introduction writing, portfolio presentation, professional interviews, salary and benefits, the architectural registration examination, the Intern Development Program, and transition to and from academia to office are covered in design studios and the professional practice course. Additionally, the professional practice course makes use of architects

and recent graduates as guest speakers, and offers a required field trip to architects' offices. Ross Weinreb currently serves as the Department AXP Coordinator. He attends the AXP conferences each summer and in turn provides all students in a Fall session with access to the State AXP coordinator, and an NCRAB official. In the same session, students are introduced to AXP and are asked to submit the form for the free AXP registration. They are also introduced to AXP credit earning and registration. In addition, beginning in 2012, the Stuckeman School has retained a career advisor on staff. Ross Weinreb also holds this position and meets with each student to start career preparation such as resume and portfolio preparation, at an early stage of the students' careers.

The Department organizes a spring Career Day for architecture students. For the last three years, Career Day activities have been organized by Ross Weinreb, an instructor in the department, and were held over two days. The event provides students an excellent opportunity to prepare portfolios and interview with many reputable firms in the country—many with branch offices worldwide. Career Day activities include assisting firms with internships and helping students in career placement. The departmental website also includes space for firms to post employment opportunities.

The Department has a very committed alumni group. This group has, for many years, provided mentorship, scholarships, as well as employment to our students. We believe that a committed alumni group is another way to assist and retain our students.

Support for Student Organizations and Honorary Societies

Every year, the Department of Architecture provides financial support to student professional organizations, including the student chapter of the National Organization of Minority Architects (NOMA) and AIAS, among others. In addition, the Department provides funding for special events, including financial support to allow student leaders to attend conferences and professional meetings. AIAS officers receive funding to attend chapter and national meetings. In 2013, students received full support to organize an AIAS Quad Conference. This conference, run by the Penn State Chapter of the American Institute of Architecture Students, attracted over 275 students from across the northeast region, included sixty Stuckeman School students. The theme of the conference was "From Bytes to Built," with a focus on craft, hands-on workshops, and digital fabrication.

Support for Student Conference Attendance/Research Grants/Awards

The Department also supports students' development through financial support for conference attendance. In 2017-18, fifteen graduate students traveled to conferences for presentations, and were supported with \$9255 of department funding, \$3700 of endowment funding, and \$5022 of college funding, for a total of \$17,977.

Architecture students at Penn State have many opportunities to apply for research grants and compete for awards for creative work. This year, we had thirteen participants in the University Graduate Exhibition. One student won the first place prize and two won third-place prizes in this competition. One of our M.Arch. students received the coveted Kossman Jury Award, bestowed by an external jury for the best thesis project each year. Many of our graduate students receive assistantships from the Department, ensuring a relationship between the graduate students and faculty through research and teaching. Many of our graduate students are involved in faculty research and publication projects, as well as community engagement projects. The Department encourages student participation in these research and creative endeavors as they offer opportunities for acquisition of new abilities and knowledge beyond the traditional classroom.

I.2.2 Physical Resources

The Stuckeman Family Building home to the Stuckeman School of Architecture and Landscape Architecture. Construction was completed in 2005 and is currently in full compliance with all applicable building codes. The openness of the Stuckeman Family Building is a tangible expression of the potential

for collaboration between the faculty, staff, and students of the Departments of Architecture and Landscape Architecture. The Stuckeman Family Building will continue to foster openness to collaboration through the creative use of our unique environment. A facilities committee monitors use of the building and suggests improvements as needed.

The Stuckeman Family Building is the first Penn State building designed to meet the national criteria for certification as part of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED™) Green Building Rating System. The 111,000-square-foot, \$27.5 million facility earned a LEED Gold Rating, making it one of the first buildings on any college campus to earn that distinction. The energy efficient design is projected to reduce the building's annual energy costs by 35 percent compared to a conventionally designed structure.

The 5-level building, adjacent to the Palmer Museum of Art and the Arts Building, has a recycled copper exterior and brick and energy-conserving glazed windows with exterior sun-control louvers that minimize glare inside. Interior sustainable features include lighting controls with automatic daylight and occupancy sensors and an HVAC system that provides natural ventilation when appropriate. Integrated landscape and parking design filters storm water run-off to minimize pollutants. Nearly 80 percent of construction waste has been recycled.

The facility is a model not only of sustainability, but also of collaboration among architects, landscape architects and the building's end-users. An advisory committee composed of architecture and landscape architecture faculty and students, as well as other University representatives, played an integral role throughout the design process. In alignment with the spirit of collaboration with which the building was designed, the building's open plan design studios, which can seat 560 students on two floors, encourage collaboration between the disciplines. According to Richard DeYoung, senior principal of WTW Architects: "Every step of the way, the collaboration between the architects and landscape architects, as both designers and client, was evident. The result is a building that clearly expresses and enhances the mission of Stuckeman, from collaborative training between the disciplines to enhancement of environmental stewardship."

Environmentally Friendly and Other Building Facts

1. 87% of the materials used were harvested within 500 miles of State College,
2. 30 tons of copper were used, covering 49,000 square feet. The copper comprises 95 percent recycled content from Revere in Rome, New York—the company that makes pots and pans.
3. 79% of the construction waste was recycled, resulting in 605 tons of recycled materials.
4. The steel is composed of 94% recycled steel products—mainly cars—from Ohio Steel Company.
5. All the plywood sheeting and wooden handrails, floors and doors are made of Forest Stewardship Certified Lumber, meaning replacement trees were planted after the harvesting of the lumber.
6. The bluestone used in the building and surrounding walls/seating is native to Pennsylvania.
7. First floor restrooms include showers—evidence of Penn State's sensitivity to fuel conservation, because the presence of showers means building users can ride their bikes here and then shower before work/school.
8. The windows in the studios automatically open and close with changes in temperature and humidity, reducing the need for mechanical heating and cooling.
9. The studios and faculty hallways feature motion-sensor lights.
10. The studios on the upper floors of the building's east side afford a 180-degree view from Bald Eagle ridge to Mount Nittany.
11. The building provides high-speed connections to Penn State's computer backbone and telephone, cable television, and satellite receiving capabilities.
12. There are multimedia systems in classrooms, centers, and labs as well as ports throughout the building for Internet connections.
13. The building has security provisions and is accessible 24 hours a day for student, faculty and staff.

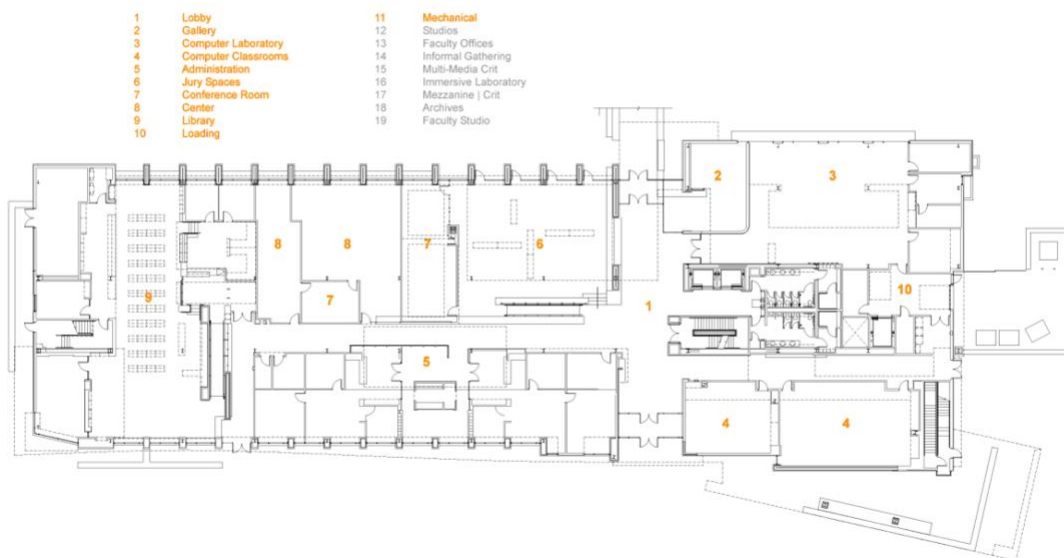
Southern Facades
Perspective

The Pennsylvania State University
School of Architecture & Landscape Architecture



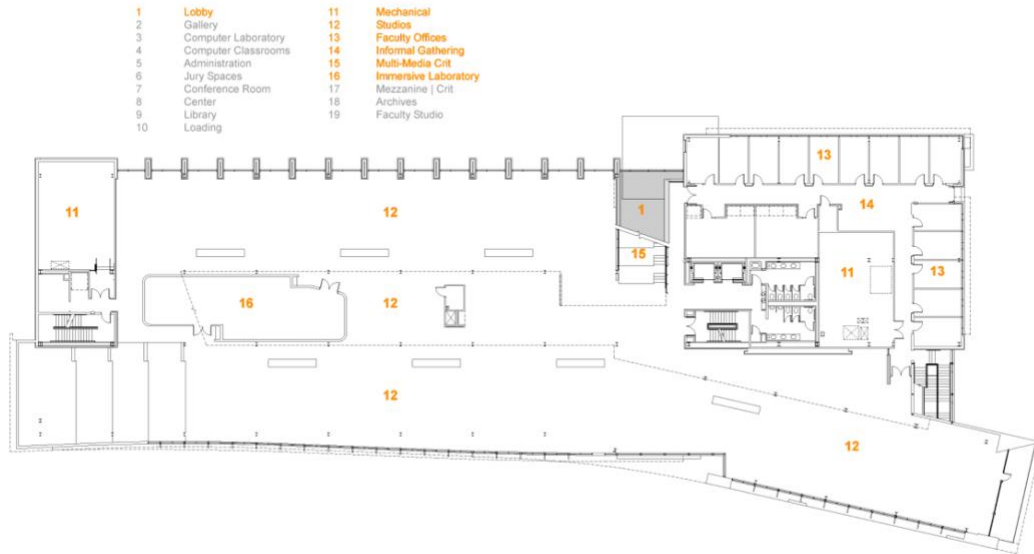
Ground Level
Floor Plan

The Pennsylvania State University
School of Architecture & Landscape Architecture



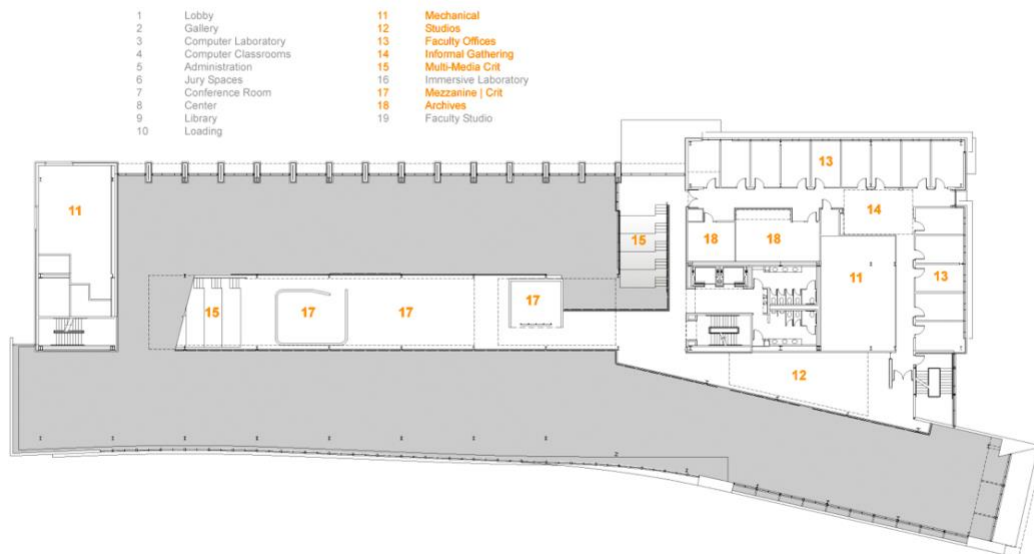
Level Two
 Floor Plan

The Pennsylvania State University
 School of Architecture & Landscape Architecture



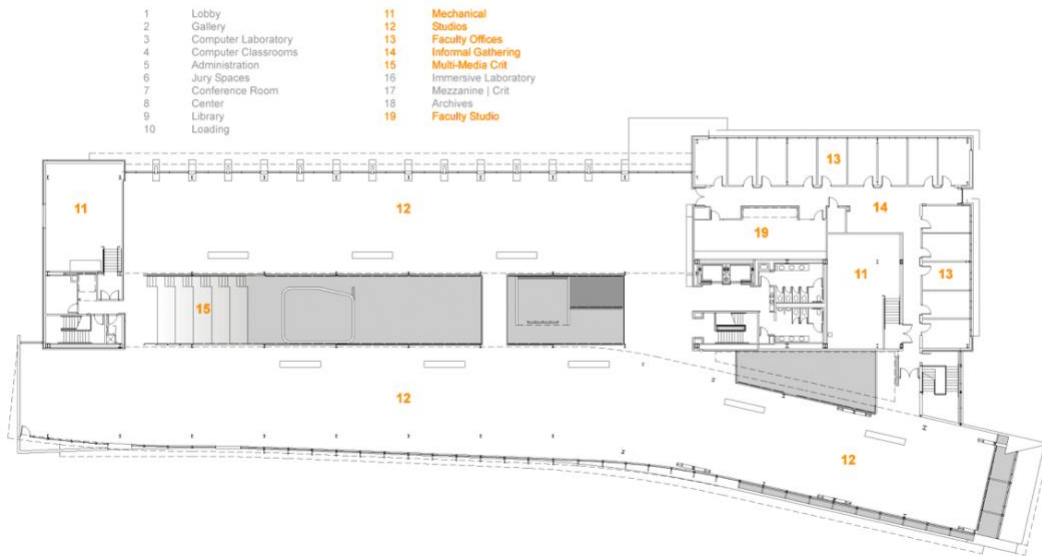
Level Three
 Floor Plan

The Pennsylvania State University
 School of Architecture & Landscape Architecture



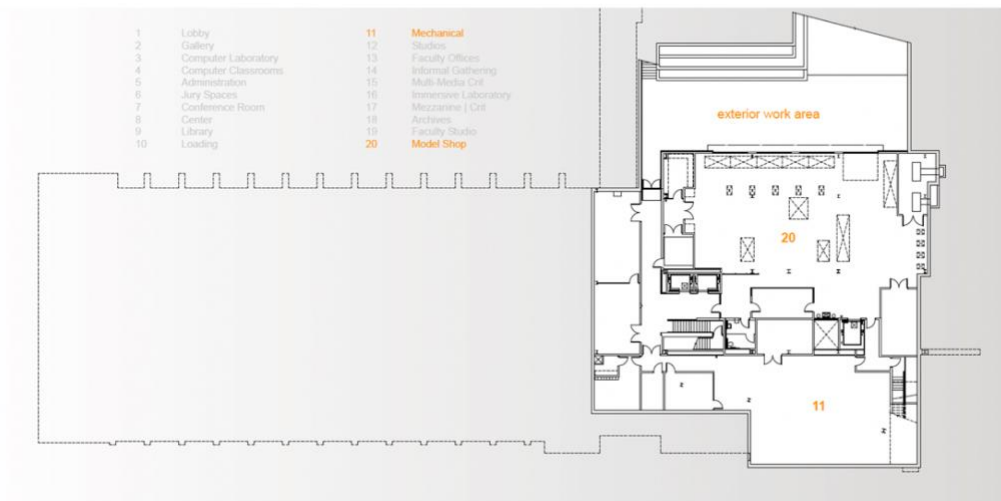
Level Four
 Floor Plan

The Pennsylvania State University
 School of Architecture & Landscape Architecture



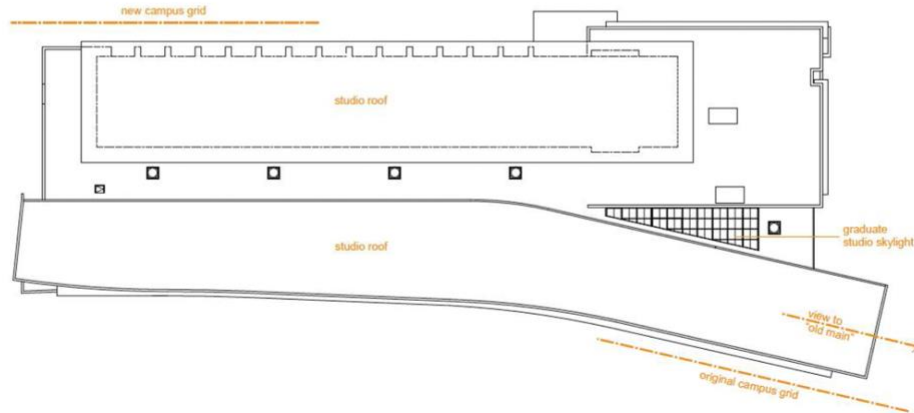
Basement
 Floor Plan

The Pennsylvania State University
 School of Architecture & Landscape Architecture



Roof
 Plan

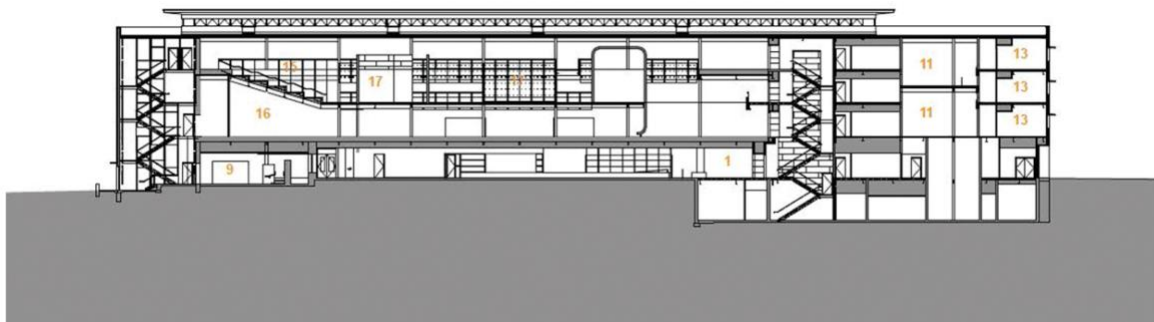
The Pennsylvania State University
 School of Architecture & Landscape Architecture



Lobby | Mezzanine | Crit | Immersive Laboratory
 Longitudinal Section

The Pennsylvania State University
 School of Architecture & Landscape Architecture

- | | |
|-----------------------|-------------------------|
| 1 Lobby | 11 Mechanical |
| 2 Gallery | 12 Studios |
| 3 Computer Laboratory | 13 Faculty Offices |
| 4 Computer Classrooms | 14 Informal Gathering |
| 5 Administration | 15 Multi-Media Crit |
| 6 Jury Spaces | 16 Immersive Laboratory |
| 7 Conference Room | 17 Mezzanine Crit |
| 8 Center | 18 Archives |
| 9 Library | 19 Faculty Studio |
| 10 Loading | |



Lobby | Mezzanine | Crit | Studios
Transverse Section

The Pennsylvania State University
School of Architecture & Landscape Architecture

- | | | | |
|----|---------------------|----|----------------------|
| 1 | Lobby | 11 | Mechanical |
| 2 | Gallery | 12 | Studios |
| 3 | Computer Laboratory | 13 | Faculty Offices |
| 4 | Computer Classrooms | 14 | Informal Gathering |
| 5 | Administration | 15 | Multi-Media Crit |
| 6 | Jury Spaces | 16 | Immersive Laboratory |
| 7 | Conference Room | 17 | Mezzanine Crit |
| 8 | Center | 18 | Archives |
| 9 | Library | 19 | Faculty Studio |
| 10 | Loading | | |



Design studios: The design studios are located on the second and fourth floors and include a total of 19,820 sq. ft. of space. The studios contain approximately 300 workstations organized by academic year. Individual workstations are assigned to each student on a semester basis and all stations consist of a drafting table, a studio chair, and a storage locker. The equipment is movable and allows for adaptation to a variety of class sizes, projects, methods of instruction, and review situations.

Classrooms, Seminar Rooms, and Lecture/Multi-Purpose Space: The program uses University-wide facilities for its large lecture classes. The Stuckeman building encompasses two information technology computer classrooms and a large conference room which can be divided into two smaller rooms, two forum spaces, a 2,500 sq. ft. jury space with permanently installed projection equipment (located on the first floor), and several design review spaces on the third floor (mezzanine).

Architecture Model Shop: The architecture model shop occupies 5,250 sq. ft. in the basement of the Stuckeman Building. It is for the exclusive use of students and faculty of the Department of Architecture and the Department of Landscape Architecture. A wide range of power, robotic, and CNC equipment as well as hand tools are provided for work with wood, metal, foam, and plastic. The shop is under the constant supervision and maintenance of two staff. In addition to the full-time staff, students are trained and employed as shop monitors, usually as part of the work-study program at the University.

Before being granted access to the model shop, students must complete the shop safety course, given by a full-time staff member. Students complete a tour and must pass an exam on functionality and safety procedures, as well as build a small project. The "Pencil Box" project is specifically designed to expose students to a variety of hand and power tools, as well as woodworking theory. After passing the exam and the successfully completing the projects, students have access to all facilities in the shop and are encouraged to use them as much as possible.

Technology Laboratories: The Department of Architectural Engineering plays a major role in the instructional programs of our Architecture students. Penn State's Architectural Engineering program is one of the leading AE programs in the country. The Department maintains laboratories that are used as a resource for technology classes in group assignments or demonstrations, for independent investigation, and for sponsored research. The labs include the Structures Studio, a Materials laboratory, and an Illumination laboratory, each appropriately equipped for classes and experimentation.

Student Lounge: A furnished lounge for informal student discussions and gatherings occupies a space on the second floor, near the elevators. In addition, a graduate lounge has been added in the graduate studio area on the fourth floor.

Willard G. Rouse III Gallery: The Gallery, located on the first floor, (686 sq. ft.) provides a premium location for internal and external exhibitions. Additional galleries on and off the campus (the HUB-Robeson Center, the Zoller Gallery in the Visual Arts Building, the Downtown Theatre Gallery, the Lipcon auditorium in the Palmer Museum of Art) are scheduled for special events and exhibits requiring careful surveillance and security.

Faculty and Administrative Offices: The offices for architecture faculty are located on the second, third, and fourth floors at the south end of the Stuckeman Building. All full-time faculty have their own offices while visiting faculty generally share offices.

The administrative offices of the Stuckeman School are located on the first floor in the center of the building and include a galley kitchen open to all faculty and staff. Each administrator in the Stuckeman School has his or her own office, as do staff members with student advising functions. Support staff are located in an open office area. The Department Head's office opens into the general office space. A storage room is adjacent to the main office reception area. Additional storage facilities are located in the basement.

Computing Facilities and Resources

Having been in our current building for over ten years, we have developed a facilities plan that explores current and future needs of the School. The intent of this plan, as it relates to computing, is to place existing and anticipated digital fabrication equipment in its optimal curricular location in the building. Currently, we have a “DigiFab Lab” in the basement that allows students and faculty in the Department of Architecture and in the College of Arts and Architecture firsthand experience in using state-of-the-art tools as part of their creative process, including a 6-axis CNC robotic arm and a CNC router. This has been a substantial endeavor as it has required the installation of network ports, room ventilation, card access, and installation of an adequate and versatile electric service. With adequate utilities currently in place, the current facilities plan continually explores the expansion of our array of equipment and capabilities, including metal machining, waterjet cutting, welding, and vacuum forming. We have already begun including welding, machining, and other metal equipment, as well as vacuum forming.

The Laptop Initiative

The Laptop Initiative is a result of cooperation between the Department of Architecture, Information Technology Services at Penn State (ITS), Apple, and Arts & Architecture Information Technology (AAIT). The Department has carefully reviewed computing options and has recommended Apple MacBook Pro as providing the most appropriate computer system to integrate with both departmental and University systems. Criteria included price/value, support, value-added features, ease of use, and upgrade options. Laptop specifications are updated annually. Students who bring other laptop brands and models of comparable performance to the recommended MacBooks can participate in the laptop initiative, although support might be limited and integration with departmental resources is not guaranteed.

Each design studio is equipped with a “computer pod” area, which contains high-end desktop computers. Most software is available free to Penn State students, and those particular to our discipline are provided to our students on all University-owned computers. The software available to students enrolled in the Architecture program includes:

- ABB RobotStudio
- Act-3D B.V.Lumion 3.2 Pro
- Adobe Adobe CreativeCloud
- Apple iLife '11 Suite
- Apple iWork '09 Suite
- Autodesk 3ds Max
- Autodesk Alias Design 2015
- Autodesk AutoCAD 2015
- Autodesk AutoCAD Architecture 2015
- Autodesk AutoCAD Civil 3D 2015
- Autodesk AutoCAD Map 3D 2015
- Autodesk AutoCAD Structural Detailing
- Autodesk BIM 360 Glue Desktop
- Autodesk Ecotect Analysis 2011
- Autodesk Infracore 2015
- Autodesk Inventor 2015
- Autodesk Maya 2015
- Autodesk Mudbox 2015
- Autodesk Navisworks Manage 2015
- Autodesk Project Vasari 2
- Autodesk Quantity Takeoff

- Autodesk Revit 2015
- Autodesk Robot Structural Analysis Professional
- Autodesk Showcase
- Autodesk Simulation Moldflow® Adviser Ultimate
- Autodesk Sketchbook Pro
- AutoDesSys bonzai3d
- AutoDesSys form•Z
- Blender
- EaglePoint Siteworks and LandCADD for Revit
- Ecografx, Inc. Land F/X
- eon LumenRT 2015
- eon The Plant Factory
- eon Vue xStream
- Esri ArcGIS Desktop 10.2.2 Advanced & Standard
- Esri ArcGIS 3D Analyst
- Esri ArcGIS Spatial Analyst
- Esri CityEngine
- FileMaker FileMaker Pro 13
- Geomagic
- Google Earth Pro
- Grasshopper 3D Grasshopper
- IntuiLab IntuiFace Composer
- Luxology MODO 701
- McNeel Bongo
- McNeel Flamingo nXt
- McNeel Penguin
- McNeel Rhinoceros 5
- V-Ray for Rhino
- MEC Soft RhinoCAM 2012
- MEC Soft VisualMill 2012
- Microsoft Movie Maker
- NREL OpenStudio
- Nemetschek VectorWorks Designer 2014
- NYU Systems SoTouch Presentation Plus
- Overwatch Feature Analyst
- Overwatch / Textron ArcGIS LiDAR Analyst
- Placeways Community Viz
- QSR International NVivo 10
- TechSmith Camtasia Studio
- Trimble Sketchup Pro 2014
- Troy Nolan Peters Solar Shoebox
- UCLA Energy Design Tools Climate Consultant
- Unity Technologies Unity 3D & 3D PRO
- US Department of Energy EnergyPlus

Software available in ITS Labs:

<http://clc.its.psu.edu/labs/windows/software>

PSU Software available for free:

ITS Downloads: <https://downloads.its.psu.edu/>

PSU WebApps: <https://webapps.psu.edu/>

Computing Infrastructure: The Stuckeman Family Building provides our students with a wireless environment enabling them to remain connected to the network while at their desks or as they move between classes, studio spaces, the Immersive Environment Lab, workshop, and digital fabrication facilities. When the speed of the wireless connection is not adequate due to the load on the system, hard-wire gigabit Ethernet connections (mobility ports) are conveniently located within studios and other areas of the building.

The Stuckeman Center for Design Computing Lab (2947 sq. ft.): Located on the main floor of the Stuckeman Family Building provides students and faculty with computing research hardware.

13 Workstations

- (2) Apple 27" iMac – 3.4GHz Intel Core i7 16GB
- (6) Mac Pro – 3.2GHz Quad-Core Intel Xeon 16GB
- (1) Mac Pro – 2.8GHz Quad-Core Intel Xeon 8GB
- (1) Mac Pro – 2.66GHz Quad-Core Intel Xeon 8GB
- (1) Mac Pro – 2 x 2.26GHz Quad-Core Intel Xeon 32GB
- (1) Mac Pro – 2 x 2.26GHz Quad-Core Intel Xeon 8GB
- (1) Dell Studio XPS – 3.2GHz i5 8GB
- (1) Dell OptiPlex – 3.4GHz i7 32GB

SCDC Peripherals

- Microsoft XBox Kinect Sensor
- (1) Leap Motion Controller
- (1) PQ Labs 60" Touchscreen
- (1) Samsung 60"
- (1) Crestron AirMedia M100 Video Gateway
- (6) Dell MP5100 DLP Projectors
- (1) Epson Expression Scanner
- (1) Color Laserjet CP3525
- (1) Silver Reed SK840 Electric Programmable Standard Gauge Knitting Machine
- (1) Bernina Sewing Machine Programmable Embroidery Module BERNINA-5-Series 560E
- (1) Digital Soldering Station Weller WESD51 50W Digital Soldering Station
- (1) Clover-Mini-Iron--The-Adapter/dp/B001CEAMH4
- (1) Variable Power Supply Mastech 30V 10A HY3010E-3

Immersive Environments Lab: Immersive Environments Lab: Jointly developed with the Information Technology Services of PSU, the second generation of the Immersive Environments Lab (IEL: 1,362 sq. ft.), our visualization and tele-collaborative facility, is centrally located on the second floor. As a visualization facility, it offers three six-by-eight-foot, panoramic, passive stereoscopic Virtual Reality displays and is supported by multi-platform graphics workstations (IBM IntelliStation Pro and Mac Pro)

and software to allow 'VR-like' display of student designs. A detailed technology list follows below. The lab gives students the capability of displaying multi-modal presentations and 3D interactive walk-throughs of their architectural designs as a full, three-screen stereo panorama. This visualization system is equipped with a sophisticated video switching interface that allows students to select sources from Windows, Macs or even their own laptop. The lab is also used for instruction purposes, critiques, and as a photography lab.

Digital Fabrication

Over the past few years, our digital fabrication capabilities have grown. Our Digifab tools are listed below. Because of the increase in digital fabrication technologies, infrastructural updates have been made.

General Computing Facilities: As part of the general computer lab system at the University, the first floor of the Stuckeman Family Building houses two general computing classrooms with 60 workstations supported by Information Technology Services. These labs are available to our students for instruction and practice, as well as to other students in the University. Within the Windows Lab, students have access to Wacom Cintiq pen displays at each workstation.

Students have access to equipment such as digital cameras, video recorders, laptops, lighting equipment, and tablets through Media Technology and Support Services at Penn State. Computer labs and facilities are provided 24/7 by the Information and Technology Services (ITS) to the entire Penn State community. The following is a list of General Computing Equipment in the Department of Architecture:

Server Environment:

Dell PowerEdge hosting virtual guest servers with external RAID5 device for file share storage. Virtual servers include: Print chargeback server, License server, File server, DHCP server, and Windows Deployment Services. Other guest servers can be brought online as needed. All guest systems are replicated to backup drives nightly and weekly.

6 Networks (gigabit speed):

Student lab systems
Faculty and Staff
Wireless (not gigabit)
Mobility
Immersive Environments Lab (National Lambda Rail connection)
Admin

Architecture Studio Workstations

34 Workstations

- (6) Apple 27" iMac – 2.8GHz i5 8GB RAM
- (11) Apple 27" iMac – 2.8GHz i5 16GB RAM
- (17) Apple 27" iMac – 3.5GHz i7 16GB RAM

Printing Resources

School of Architecture and Landscape Architecture Studio Plotters

- (1) HP PageWide XL5000 multifunction large-format plotter/scanner 40"
- (4) HP Designjet 3200 42"
- (2) HP Designjet 6100 42"
- HP Designjet 6200 42"
- HP Designjet t7100 3 x 42"

School of Architecture and Landscape Architecture Studio Printers

- (2) HP Color Laser 5550

- (1) HP Color Laserjet 5500
- (5) HP LaserJet 5200
- (1) HP Color Laserjet CP5520
- (1) HP 700 M712

Public labs maintained by ITS in building:

- 34 Dell OptiPlex – 3.2GHz i5 8GB
- 26 Apple 27" iMac – 2.93GHz i7 8GB
- (2) 11x17 Scanners

Shared Stuckeman School Studio Workstations

8 Workstations

- (5) Mac Pro – 2 x 2.66GHz Quad-Core Intel Xeon 8GB
- (2) Mac Pro – 2 x 2.66GHz Quad-Core Intel Xeon 16GB
- Mac Pro – 2.27GHz Quad-Core Intel Xeon 16GB

Shared Stuckeman School Graduate Workstations

8 Workstations

- (6) DELL Studio XPS – 2.8GHz i7 9GB
- 27" iMac – 2.7GHz i7 8GB
- 27" iMac – 3.1GHz i5 12GB

Faculty/Staff systems:

Administrative Staff have laptop systems of i5 or higher
Shop Staff have dual boot i5 or i7 Mac systems
Faculty all have dual boot laptops of i5 or i7 configuration
All Faculty/Staff systems are on a 4-year life cycle

Digital Fabrication

Please note, this list groups hardware and software together as a workstation/unit, which duplicates some of what is listed above in the software list, but more accurately represents how the resources are used. This list also lists the features of each unit.

- Dimension Stratasys BST 3D Printer
 - 8"x8"x10" build volume
- MakerBot Replicator 2X 3D Printer
 - 9.7"x6"x6.1" build volume
- MakerBot Replicator Mini 3D Printer
 - 3.9"x3.9"x4.9" build volume
- Thermwood Model 45 CNC Router
 - 3 axis operation
 - 5'x10'x16" capacity
 - vacuum hold down
 - 7 position tool changer
- Techno LC3024 CNC Router
 - 3 axis operation

- 30"x24"x5" capacity
- (2) Dell XPS Workstations for CNC Programing
 - RhinoCAM Software
- ABB IRB2400/16 Robotic Arm
 - S4c+ Controller
 - Dell Studio XPS Workstation for Robot Programming
 - Robot Studio Software
- (2) Universal Laser Systems X-660 Laser Cutters
 - 40 Watt Lasers
 - 18"x32" Sheet Capacity
- (2) Universal Laser Systems VLS660 Laser Cutters
 - 18"x32" Sheet Capacity
- (4) Dell Studio XPS Workstations for Laser Cutter Control
- Konica Minolta Vivid910 3D Digitizer
 - Dell Precision Workstation for Scanning
 - Geomagic Software with scanning plugin
 - Konica PET (Polygon Editing Tool) software
- Freeform Phantom Haptic Feedback Digital Clay Carver
 - Freeform Modeling Software
 - Dell XPS Workstation
 - Freeform Modeling Software
- (5) Dual Boot MacPro Lab Workstations
 - Geomagic Software
 - RhinoCAM Software

IEL [Immersive Environments Lab]

Main Display

3 screen rear projection

6'x24' 4200x1050 pixels or three 6'x8' at 1400x1050 pixels passive stereo

6 Dell 5100MP DLP projectors

Altinex video routing matrix. RGBHV 16in x 8out

Crestron Control Interface

Stereo Audio

Podium Laptop Input

Dell Precision T7500 running Windows 7

3 screen continuous desktop, 3840x960 pixels stereo graphics output

BS Contact Stereo browser, Visualization ToolKit, Google Earth, misc stereo viewers.

Mac Pro Quad-Core running OS X 10.7

3 Screen Display 3072x768 resolution

ClearOne RAV900 voice conference system

echo cancellation

stereo audio input/output

Bose speakers

Challenges and Recommendations

The building was programmed and designed just prior to the emergence of digital fabrication and rapid prototyping as important aspects of architectural education and practice. We have begun a "Digital Fabrication Master Plan" to address the issue of properly locating existing equipment, and planning for future growth.

I.2.3 Financial Resources

We have successfully negotiated a tuition revenue-sharing plan with the Provost, whose office has been extremely helpful and supportive of this plan. The plan has allowed us to address the shortcoming of graduate student assistantships (PSU term: GIA). We are now in a position to support most of our Master of Architecture students with 50% assistantships. In addition, the College has provided us with seven new GIA's for the PhD program and roughly twenty additional temporary GIAs annually. At this point, we have access to 43 GIAs. This is a great improvement over the sixteen GIAs we had access to a few years ago.

Departmental Budgets

The Pennsylvania State University uses a "historical funding model", which de-couples annual funding from enrollment and FTEs. The Department has had "flat" funding for as long as history shows. In addition, the College distributes "temporary funds" each year, that are distributed towards various initiatives. We have rigorously applied for these temporary funds, and the College has been forthcoming with support for our program.

The fixed budget is achieved through the merit-based increases in the salaries of faculty and staff—approximately 3% annually. In addition, we have added three tenure lines, and two multi-year, fixed-term faculty lines. The temporary budget is negotiated annually at budget meetings. The numbers presented under "temporary budget" are within the norms of the requests that have been made by the department in the past. Now that the Stuckeman Endowment is fully vested, the College has requested that our budget include the Endowment funds, which reduces the Department's temporary request while increasing our overall budget. In addition to the list below, we have attached a budget summary of operating expenditures and income, as well as the endowment funds that are being utilized to support activities. Please see "Department of Architecture Operating Expenditures and Income" and "Incoming Funds from Stuckeman School Endowments (2 documents)" in Section 4-Supplemental Information. Below, please see an abbreviated list of the cost-items from the 2017-18 department budget, submitted to the Dean's office for a total of \$85,877:

- Misc. Supplies
- Postage for special projects (grad program, etc.)
- Meeting refreshment expenses
- Group Meals (jurors/lecturers & escorts)
- Travel /conference, etc.
- Student Travel
- Staff Professional Development
- Computer Services/Oracle Calendar
- Books Periodicals Videos
- Promotional Printing
- Professional Memberships (NAAB/ARCC/ACSA)
- Miscellaneous
- Alumni Award Recipient Travel
- Moving expenses
- Graduate Program
- Student Support
- Student Workshop
- Wages: FTCAP, archival, etc.

Special Expenses Specific to 2017-18: \$1,743,794

- Graduate stipends
- Faculty computers
- Fixed term salaries

- Faculty/staff/student wage benefits
- Startup expenses
- Kossman Reviews for 5th Year B.Arch. in Spring
- Professional M.Arch. promotion, recruitment (design, printing, posters, ads, mailings)
- Strategic project manager
- Graphics manager

Annual typical expenses: \$48,998

- Computers
- Grad Studio
- Misc.
- Model Shop
- Studio years (B.Arch. 1st -5th; MARCH 1st-3rd; MS 1st-2nd)

Annual endowment expenses: \$80,900

- Chair in Design Innovation
- Lecture/exhibition
- Final reviews
- Faculty travel

Any program of our size has normal fluctuations in the size of its student body. For example, a few years ago, approximately 80 freshmen accepted their admission offers, two years in a row, instead of the usual 60. This created a bubble of an additional 40 students that went through the program. As a part of our normal operations, we are well equipped to deal with these fluctuations. The additional students in the Department from the professional M.Arch. program, in terms of its general effect on the department budget, may be seen as one of these fluctuations. In our assessment, the general operating costs related to the additional students are negligible, and have been easily absorbed in the current budget. Of course, much of what we already do, such as lecture series, career fair, and reviews will take place with or without the additional students.

The Stuckeman Endowment, housed at the School of Architecture and Landscape Architecture, has made possible four professorships to be shared by the two departments annually. The funds for the endowment are completely vested, and we have been able to bring to campus stellar faculty to teach our architecture students with funds additional to our budget allotment. In addition, the Stuckeman Endowment supports a much-expanded lecture series, computing, faculty start-up grants, collaborative work, and much more. Please see Part 4-Supplemental Information, for a list of Visiting Lecturers and Critics, along with their respective exhibitions.

Based on a recent departmental assessment of “increased faculty assignment” for the professional M.Arch. program, a total of two full-time faculty members are needed. (Our full-time faculty teach four courses each year, two studios, and two lecture or seminar courses.) This increase has already been achieved by the additional faculty appointments in the last few years and does not include the Stuckeman Professorships. The Department’s overall budgetary situation, including the additional 30-36 professional M.Arch. students, is better than it was a few years ago. In addition, the benefits to our currently accredited undergraduate B.Arch. program will be substantial in terms of offering new assistantships that will invariably enhance research and creative activity for both the students and faculty, as well as provide a cohort of advanced graduate students with diverse backgrounds with whom the undergraduate students are able to interact and work.

Forecasts – Five-Year Projections of Revenue and Costs

	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Fixed Budget	\$2,049,943	\$2,186,623	\$2,151,153	\$2,328,522	\$2,441,986	\$2,515,245	\$2,590,702	\$2,668,424	\$2,748,476
Temporary Budget	\$419,677	\$343,715	\$245,765	\$341,220	\$355,000	\$317,000	\$326,510	\$336,305	\$346,394
M.Arch. Revenue Sharing		\$160,410	\$213,283	\$127,870	\$147,715	\$152,146	\$156,710	\$161,412	\$166,254
Total	\$2,469,620	\$2,690,748	\$2,610,201	\$2,797,612	\$2,944,701	\$2,984,391	\$3,073,922	\$3,166,141	\$3,261,124

1.2.4 Information Resources

Faculty, students and staff are given multiple opportunities—through visiting lecturers, guest critics, conferences and exhibitions—to expand their professional education. Please refer to the List of Visiting Lecturers and Critics, referenced above, appearing in Part 4-Supplemental Information.

Library Resources for Professional Practice and Lifelong Learning

Summary

Since the M.Arch program focuses on topics that are similar to other programs in the Department of Architecture, so it has placed few new demands on the existing information resources. The increase in the number of students served has been a very small percentage of the total and easily absorbed by existing resources. For these reasons, this portion of the self-study attempts to describe and assess the library and information support for the Department of Architecture as a whole, with a few mentions of support for the M.Arch program where that can be identified.

Library Resources: Summary

The University Libraries provide information resources for the Department both through the Architecture and Landscape Architecture Library and through a rich network of resources that constitute one of the larger academic libraries in the country. Library staff members strive to develop and maintain collections, facilities, and services suited specifically to the needs of the Department and maintain close communications with the Department's faculty staff and students. While challenges of rapid change, uncertain economies, and limited space will always pose problems, a continued close working relationship is seen as the key to effective solutions.

Institutional Context

Library support of the Department of Architecture is provided primarily by the Architecture and Landscape Architecture Library (hereafter "ALA Library"), but also by the Engineering Library, the Arts and Humanities Library, and, more generally, by the entire group of 38 Penn State libraries spread throughout the commonwealth. Each of these libraries is administered and funded by the University Libraries. The ALA Library holds materials on the current theory and practice of architecture and landscape architecture, as well as modern and contemporary architectural, landscape, and urban planning and design. It also includes the history of these topics back to the mid-nineteenth-century. Materials on earlier periods of architectural history are collected in the Arts and Humanities Library. The Arts and Architecture Librarian administers the architectural collections at both of these locations. The Engineering Library collects most aspects of engineering and its collections on architectural engineering, structures, building systems, construction, and computer-aided design and manufacturing are of particular value to the Department of

Architecture. A popular document delivery system permits the rapid movement of library materials between any of Penn State's 23 campuses or any other University Libraries facilities. Delivery to offices is provided for faculty members and is currently being piloted for graduate students.

The Penn State University Libraries are ranked highly by the Associations of Research Libraries, who essentially comprise the largest academic libraries in North America. The Penn State paper and ink collections total roughly 6 million volumes.

Typical of major land-grant universities, Penn State supports a wide array of disciplines and programs. Since the University Libraries supports each of these, the information needs of interdisciplinary approaches to design are often easily managed. The rare treasures of a major research collection are often useful for teaching and research in architecture. For example, the Special Collections Library has several collections that are used by individuals or visited by classes. These include an excellent collection of pre-nineteenth-century treatises on architecture and art, two collections of architectural photography (by F.S. Lincoln and Edward Bye) and architectural records related to campus planning and the development of central Pennsylvania. Recently, archival materials in the Special Collections Library provided the focus for a multi-year research project on the early history of double-skin glass facades. The Maps Library also contains many useful cartographic materials. The Earth and Mineral Sciences Library has supporting collections for innovative materials and green design. The News and Microfilms Library contains approximately 10,500 items related to architectural history.

Collections

The Libraries offer a broad and deep collection of materials useful for the study of architecture in both digital and fixed media. But an unfortunate aspect of digital library development is that it has become nearly impossible to quantify collections by discipline or to measure use by discipline.

Considering some quantities of the print-and-paper collections may help to understand the size and distribution of the collections. The ALA Library houses roughly 19,000 titles of paper books and journals (or nearly 30,000 volumes). Another 16,000 titles (or 25,000) volumes on architecture narrowly defined (that is to say, assigned to the NA category of the Library of Congress Classification) are found in the Pattee/Paterno Library, in remote storage, or at the other Penn State campuses. With one mouse click any of these items may be obtained within three days.

The University Libraries license more than 800 databases and make them available to Penn State users at any location. The Summon discovery layer software (LionSearch at <https://libraries.psu.edu>) provides a single searching environment for most of the licensed digital collections and some open access collections. It may be used to glimpse extremely rough quantities using individual files (displayable or downloadable) as the unit of measure (usually an article, sometimes a chapter of a book, etc.) Based upon a series of broad sample searches in LionSearch, the University Libraries' new discovery system, the number of e-journal articles and e-books related to architecture might be between 500,000 and 1,000,000. Roughly 80% of these are articles in journals and magazines. Another 18% are e-books or parts of e-books. Perhaps 2% are digital images and streaming videos.

For technical reasons, some provided databases cannot be found via LionSearch. Those related to architecture include:

British Architectural Library Catalog
[BuildingGreen Suite](#)
[Building Types Online](#)
[CUMINCAD](#)
Detail: Inspiration (beginning August 2018)
[Material ConneXion](#)

To help students navigate this array of resources, the ALA Library staff produce research guides and course guides such as these:

Architecture [a basic, undergraduate guide] <http://guides.libraries.psu.edu/architecture>
Art & Architectural History <http://guides.libraries.psu.edu/ArtHistory>
Special Collections: Architecture & Landscape Architecture <http://guides.libraries.psu.edu/SC/Architecture>
ARCH 520 Methods of Inquiry [a graduate-level guide] <http://guides.libraries.psu.edu/UParch520>

Collecting

The Department of Architecture's programs guide additions to the Libraries' collections. Priority is given to publications that exemplify quality in design, address design's response to social, technological, and cultural change, and publications that demonstrate the cultural diversity of design. The collection focuses on the art, practice, and societal aspects of architecture (topics such as green design, community based design, virtual space, representation, etc.). The science and technology of architecture are also considered and collected, with recognition that these aspects of the discipline are collected much more intensely by Penn State's Engineering Library (only a 10-minute walk) in support of the College of Engineering's Architectural Engineering program. Requests from faculty or students for additions to the collections are solicited and always welcomed. Seldom do these need to be turned-down.

Collections: Video

The ALA Library houses a specialized collection of roughly 150 videos and on design subjects, which circulate either for classroom presentation or individual viewing. Related video collections are held throughout the library system and are accessible to the Architecture faculty and students. The Libraries have licensed numerous videos for streaming, including many excellent documentaries on architecture, planning, and sustainability produced by Bullfrog Films, Icarus Films, PBS, BBC, and many others. (<http://guides.libraries.psu.edu/videoresources>)

Collections: Visual Resources

The University Libraries began providing digital images for architecture in 2002 and since that time has assembled a rich assortment of resources. Licensed images include subscription databases such as *ARTstor* and the *AP Multi-media Collection*, which contain millions of images of art and architecture. These are supplemented by an assortment of locally mounted image databases that fill gaps and meet special local needs. Key examples are:

Worldwide Building and Landscape Pictures: A Penn-State-only database of 28,082 images of major monuments in the history of architecture and landscape design. Most of these are licensed from professional photographers, but 5,217 have been obtained from Penn State faculty with permission to also post them on our Flickr photostream for all educational users: <http://www.flickr.com/photos/psulibscollections/>

Central Pennsylvania Architecture and Landscape Architecture: Since January, 2013, this public database has documented the architecture of our region with photographs and extensive cataloging. It has begun with more than 1,102 images with a strong emphasis on mid-century Modernism, including the works of many former Architecture faculty members, and will grow to include all aspects of the built environment of Central PA. This database is intended to contribute to the Department of Architecture's outreach mission to serve the region and to increase public awareness. (Accessible worldwide.)

University Park Campus History Collection: Several hundred images of drawings and photos documenting campus planning at Penn State (Accessible worldwide.)

Art History Department Visual Resources Collection: A Penn-State-only collection of 96,163 images of the history of art and architecture.

The Libraries manage common software for these locally-managed collections and they may be searched simultaneously.

Services

The University Libraries offers a full array of library and information services. These services are too numerous to list here, but most may be browsed at the University Libraries home page: <https://libraries.psu.edu/> A few services of particular interest for this self-study are discussed below.

Services: Partnership

Those on the staff of the ALA Library see their role as partners, working as closely as is feasible with the faculty and staff of the Stuckeman School. The full-time staff attend Department of Architecture lectures and events and follow the School's listservs and Tweets. Publications by and about the Department's guest speakers are routinely obtained and displayed. More extensive library exhibits attempt to respond to the interests and activities of the school. (For example, because of faculty interest in diversity in the design professions, the faculty were polled for examples of important women writers on design and the resulting list of critics were the subject of an exhibit that later won the University Libraries annual Diversity Award.) Library staff are sometimes asked to speak to classes, to help with design critiques, or to be clients for design-build projects. Library staff have often assisted faculty with development, outreach, or research endeavors.

Services: Digital Repository

The University Libraries maintain a digital repository (ScholarSphere at <https://scholarsphere.psu.edu>) where Penn State users may place files for permanent storage and access. Recent uses within the Stuckeman School have included faculty and graduate student publications, datasets, student papers, and local architecture documentation.

Services: The Library as Place

In keeping with a general trend in academic libraries, and with the Stuckeman School's mission to encourage collaboration, the ALA Library has attempted to maximize the value of its physical facilities for occupants of the Stuckeman Building as well as other people in the "Arts Quadrant" of our campus. In recent years, these efforts have included:

- Liberalized policies for use of the rooms in the ALA Library
- Enhancement of the furniture, equipment and software available for group interaction
- Additional flatbed scanners
- Additional hardware accessories for loan at the Service Desk (interactive pens for the computing labs, cables, rechargers, headphones, jump drives, book carts, etc.)
- Additional lighting and furniture
- Improved exhibit and display facilities

All physical improvements have been managed with a strong (and sometimes expensive) commitment to respect the building's design concept and tone. This attractive library space is well known at Penn State

and a popular commons. The University Libraries are currently seeking a donor for a “chair collection” that would programmatically obtain an assortment of designer chairs for use in the ALA Library.

Services: Instruction

When requested by faculty, the Arts and Architecture Librarian, or other ALA Library staff provide classroom instruction in library and Internet research resources and techniques. These presentations are tailored specifically to the needs of particular course assignments. While the library staff respond to all requests for instructional sessions, routines have developed to orient all graduate students. Sessions with graduate students usually consist of an initial greeting event, a class session introducing students to library and Internet research early in their first semester, and follow-up, one-on-one coaching sessions once students have selected individual research projects.

Services: Hours

The ALA Library is typically open 87.25 hours-per-week during fall and spring semesters—7:45 AM until 11PM most weekdays and shorter periods on weekends. The popular Knowledge Commons in the nearby Pattee/Paterno Library complex is open 24 hours during fall and spring classes. Service hours are monitored rigorously and changed annually as traffic requires.

Services: Staffing

The ALA Library has excellent rapport with its users and enjoys a reputation for providing good service. These successes are primarily due to the quality of the full-time staff who are well-credentialed, experienced, and recognized as leaders in the University Libraries.

Stephanie Movahedi-Lankarani, Library Manager

- BA Art History
- 34 years experience at the Penn State Libraries
- Winner of the Margaret Knoll Spangler Oliver Libraries Award

Tim Auman, Information Specialist

- BA Integrative Arts (minor Architecture), coursework toward MA Art History
- 25 years experience in the ALA Library
- Winner of the University Libraries Diversity Award and a participant in the Penn State Emerging Leaders program

Henry Pisciotta, Arts and Architecture Librarian (Associate Librarian)

- BFA Theater, MA Library Science, MA Art History, coursework toward PhD Art History
- 36 years experience in architecture libraries, 18 at Penn State

Robert Gordon Peterson, Information Support Specialist 2

- 5 years experience in academic libraries

Part time staffing of roughly 2.5 full-time equivalents supplement the full time staffing. An unusual feature of the staffing is that the Arts and Architecture Librarian has many duties in the Pattee (“main”) Library and routinely spends only one day per week in the ALA Library (and at other times by appointment). Other staff members have both the skills and authority to handle most immediate needs.

Funding

A major force in the digital library revolution is the dominance of multi-disciplinary packages of e-journals and e-books. These broad collections make tracking of funding for any specific discipline nearly impossible. However, we can easily understand the overall expenditures for library materials in all formats

at Penn State. The Association of Research Libraries gathers annual statistics on library expenditures. In the most recently published ranking, Penn State ranked 7th of the 114 member libraries in overall spending. That ranking is boosted by Penn State's unique configuration of 22 campus libraries under one administration. A more telling ranking focuses on library materials expenditures, where Penn State ranks 10th. (See: <https://www.chronicle.com/article/Spending-by-University/240829>) Library materials expenditures at Penn State are well balanced between state funds and endowment income, ensuring more stability than experienced at many peer institutions.

In general, funding for library collections in support of the Department of Architecture should be described as adequate, but requiring increased care in stewardship each year. Funding for subscriptions is especially tight. Nonetheless, the paper collections for architecture continue to grow at the rate of approximately 3% per year. Though it is not possible to quantify the growth of the digital collection, it is clearly expanding at a much faster rate.

Funding for ALA Library staffing has not changed fundamentally since the previous accreditation visit. The number of positions has remained constant and merit or other appropriate increases have been issued most years.

Challenges

Subscriptions: New digital resources often require licensing via annual subscriptions. Funding for these ongoing commitments has been difficult to secure. This is a critical problem in most academic libraries.

Globalization: Architecture students and architecture careers are increasingly international. Expanding the geographic scope of the collections and the languages in the collections is a difficult and ongoing task.

Space: The ALA Library is currently operating at a fixed capacity—the number of volumes added each year must be accommodated by moving an equal amount of materials to remote storage. Demand for the two rooms in the ALA Library (a classroom and a group study room) increases steadily and may require additional policy restrictions in order to reduce contention. During many afternoons, all computing workstations in the library are busy and there is no floor space for additional workstations. We have hopes that increased use of smaller computing devices may relax this problem.

Instruction: The ALA Library staff support the Department of Architecture's commitment to help students develop the life-long learning skills needed for success in a rapidly changing profession and hope to work closely with faculty in providing that type of learning experience. Library staff have begun to emphasize high-quality open access resources to promote research skills that last beyond the restricted licensing of digital content for universities.

Communications: While the ALA Library staff members enjoy an excellent rapport with faculty, staff and students in the Department of Architecture, additional means of communications may be needed, as tight budgets require more careful decision-making. We see close communications as both a challenge and the best route to successfully dealing with each of the challenges listed above.

I.2.5 Administrative Structure & Governance

Penn State is a state-related land-grant university serving the Commonwealth of Pennsylvania. The University is accredited by the Middle States Association of Colleges and Schools and is a member of the Association of American Universities. The College of Arts and Architecture is one of eleven colleges, in addition to the Graduate School and the Schreyer Honors College. Each college is structured independently, but most have similar substructures of schools and departments. The Department of

Architecture and the Department of Landscape Architecture, two independent departments in the College of Arts and Architecture, together, formed the School of Architecture and Landscape Architecture in 1997. The Stuckeman Endowment and the completion of the Stuckeman Family Building that houses the operations of both departments promoted cooperation and joint efforts between the departments under a newly named Stuckeman School of Architecture and Landscape Architecture. The School hired a new director, starting Fall 2010, and has been refining its governance structure to reflect the newly added position of the director. The departmental operations and its governance have remained intact throughout the transition. We were joined in 2012 by the Graphic Design Program.

Administrative Structure

The Department of Architecture is within the Stuckeman School of Architecture and Landscape Architecture, which in turn is in the College of Arts and Architecture.

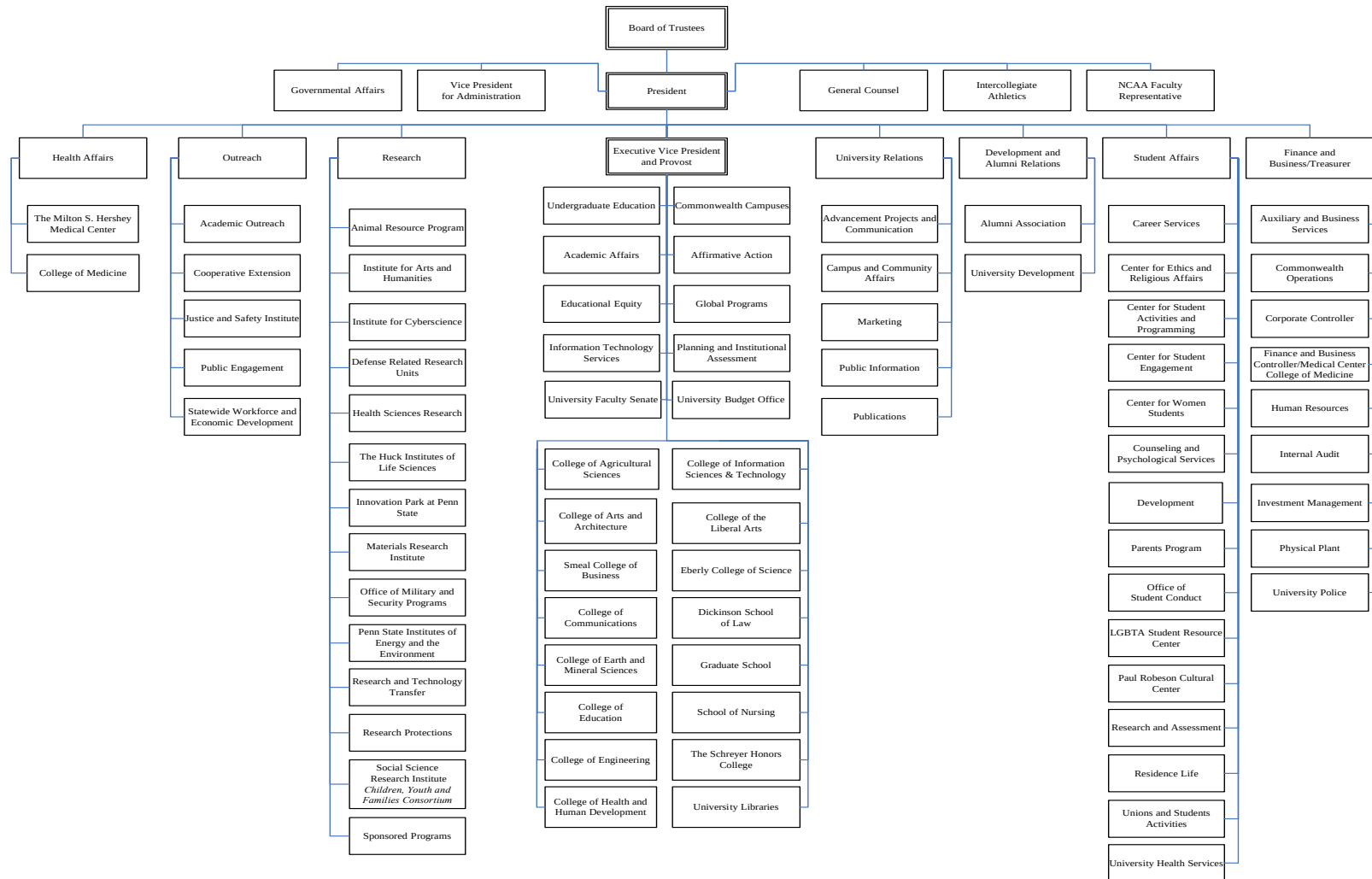
The Department of Architecture has a Department Head position, which is a full-time administrative position. The Head spends approximately 20% of his time on University-wide responsibilities, 20% on College-wide business, and 60% on departmental and School administrative tasks. There is a department staff administrative assistant who works exclusively for the Department.

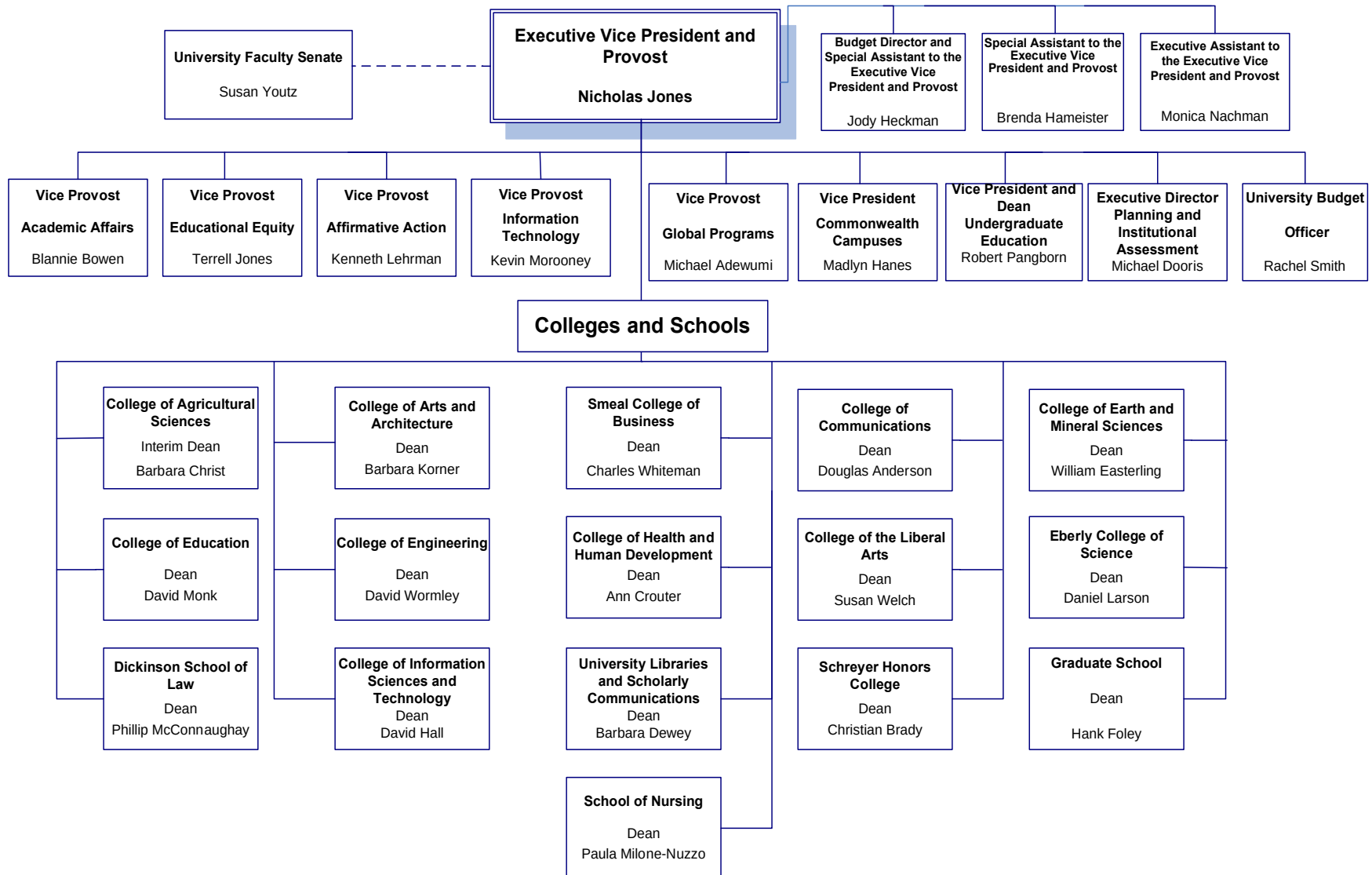
In addition, there are four full-time positions within the Stuckeman School, shared by Architecture: one secretarial, one budget coordinator, one HR coordinator, and one supervisor of administration. There are two persons in the architectural model shop, both of whom spend 100% of their time on duties related to managing the operation of the shop, supervising work study employees, monitoring machinery, and insuring adherence to safety operational procedures. There is one person who supports the Immersive Environments Lab (IEL) and Digital Fabrication equipment who spends 50% of his time related to the operations of the IEL and the Digital Fabrication equipment.

The College IT team supports all computation labs and maintains the computer hardware and software for students, faculty and staff.

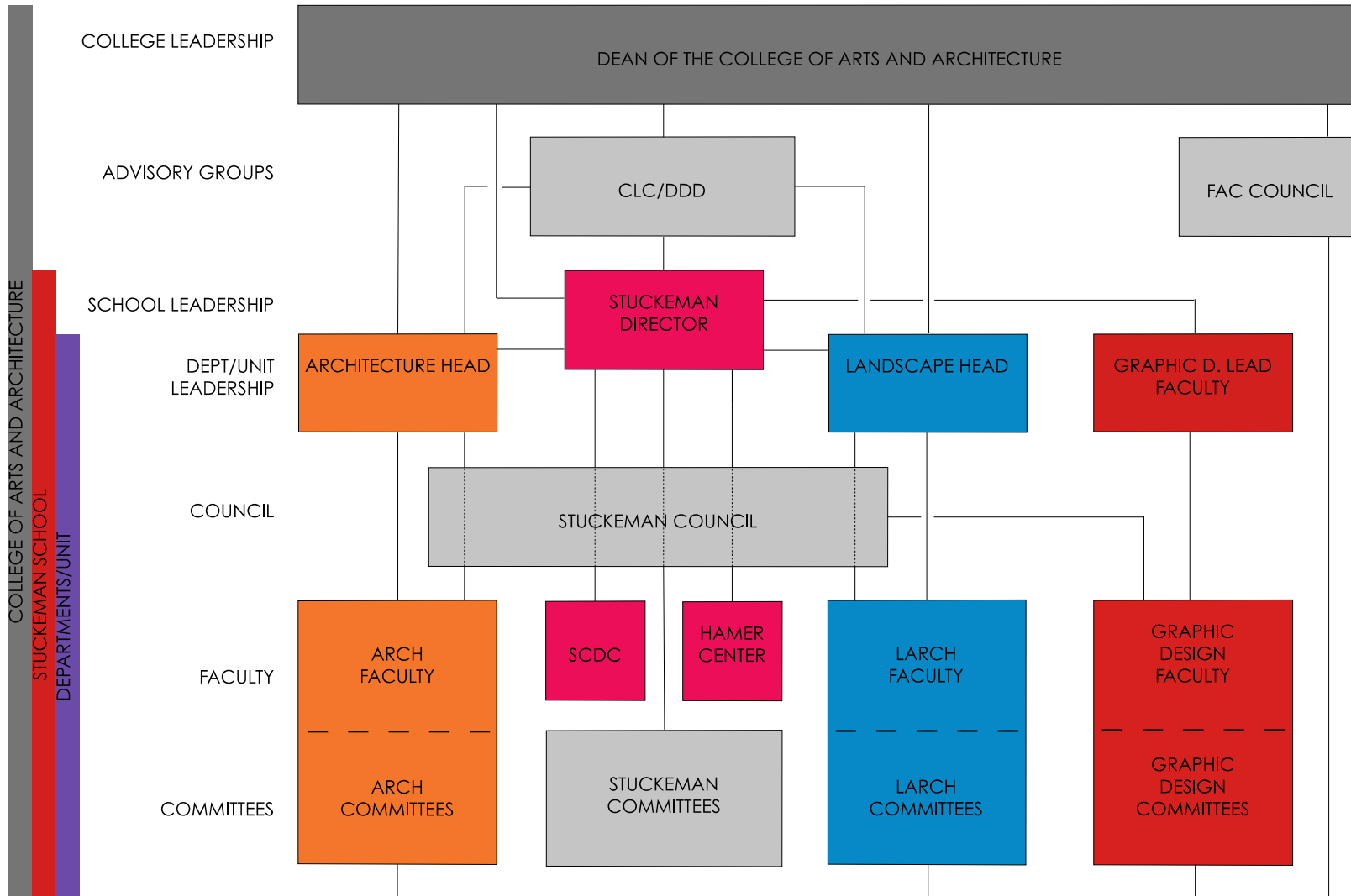
In addition to the full time staff, there are numerous work-study and wage-payroll employees. Approximately six to eight persons are employed part-time through these measures. Their responsibilities vary depending upon departmental needs.

THE PENNSYLVANIA STATE UNIVERSITY ADMINISTRATIVE STRUCTURE





STUCKEMAN SCHOOL GOVERNANCE AND REPORTING STRUCTURE



Involvement in Governance by Faculty, Staff, and Students

Please refer to the “Stuckeman School Governance Document” Section 4-Supplemental Info.

Governance and control of the institution is vested in a thirty-two member Board of Trustees. This board is the final repository of all legal responsibility and authority to govern the University, under the Corporation Code of Pennsylvania. The internal governance of the University is controlled by the President and his administration, by University Council, by the faculty, and by the student body in accordance with the delegation of authority and advisory roles set forth by the trustees.

Faculty participate in the governance of the College by their appointment or election to standing committees, such as the College Curriculum Committee, P&T Committee, Faculty Council, and Diversity Committee. The Stuckeman School has a committee structure that involves faculty, staff, and students as well. Faculty, staff, and students also actively engage in the governance of the Department via membership on standing committees. The establishment and implementation of policies and procedures, curriculum review, and development are thoroughly discussed at committee meetings. Recommendations of committees are brought to faculty meetings and faculty retreats for discussion by the full faculty, and whenever needed, student and staff representatives. The Department also regularly meets staff and elected student representatives to discuss issues, policies, and procedures.

Committee Structure and Assignments

The matrix on the following page illustrates the departmental committee structure and various committee assignments for 2016-2017 and 2017-2018.

[illegible]

[illegible]

II.1.1 Student Performance Criteria

The following matrix represents the coverage of performance criteria by course, and educational realms.

NAAB MATRIX				STUDENT PERFORMANCE CRITERIA FOR M.ARCH.																									
			CREDITS/COURSE	Critical Thinking and Representation					Building Practices, Technical Skills, and Knowledge										Integrated Architectural Solutions		Professional Practice								
			A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	C1	C2	C3	D1	D2	D3	D4	D5	
			Professional Communication Skills	Design Thinking Skills	Investigative Skills	Architectural Design Skills	Ordering Systems	Use of Precedents	History and Global Culture	Cultural Diversity and Social Equity	Pre-Design	Site Design	Life Safety Codes and Regulations	Technical Documentation	Structural Systems	Environmental Systems	Building Envelope Systems and Assemblies	Building Materials and Assemblies	Building Service Systems	Financial Considerations	Research	Integrated Evaluations and Decision-Making Design Process	Integrative Design	Stakeholder Roles in Architecture	Project Management	Practice Management Business Practices	Legal Responsibilities	Professional Conduct	
FALL	ARCH 531	Architectural Design I	6																										
	ARCH 521	Visual Communications I	2																										
	ARCH 503	Materials + Bldg Const I	3																										
	AE 421	Arch Structural Systems I	3																										
	ARCH 501	Analysis of Arch Precedents	3																										
SPRING	ARCH 532	Architectural Design II	6																										
	ARCH 522	Visual Communications II	2																										
	ARCH 504	Materials + Bldg Const II	3																										
	AE 422	Arch Structural Systems II	3																										
	ARCH 502	Analysis of Arch Precedents II	3																										
SECOND YEAR:																													
FALL	ARCH 533	Architectural Design III	6																										
	ARCH 451	Arch Pro Practice	3																										
	ARCH 510	Contemporary Architecture + Theory I	3																										
	AE 211	Intro. Env. Control Systems	3																										
SPRING	ARCH 534	Architectural Design IV	6																										
	ARCH 480	Technical Systems Integrative	3																										
	AE 424	Env Control Systems I	3																										
	GRAD	Electives	3																										
SUMMER SESSION:																													
SUMMER	ARCH 499	Foreign Study																											
	– OR –																												
	ARCH 496	Independent Study																											
	– OR –																												
ARCH 495	Internship																												
THIRD YEAR:																													
FALL	GRAD	Electives	3																										
	ARCH 519	Research in Architecture	3																										
	ARCH 550	Ethics in Architecture	3																										
	ARCH 536	Design Inquiry	6																										
SPRING	ARCH 536	Design Inquiry	6																										
	ARCH 511	Theoretical Perspectives Arch	3																										
	GRAD	Electives	3																										

Student Performance Criteria and the M.Arch. Curriculum

This section explains the relationship between Student Performance Criteria and the curriculum in the following categories:

REALM A: Critical Thinking and Representation
REALM B: Building Practices, Technical Skills, and Knowledge
REALM C: Integrated Architectural Solutions
REALM D: Professional Practice

The following is an account of how each criterion is addressed in the architecture curriculum:

A.1 – Professional Communication Skills (“Ability to write and speak effectively and use representational media appropriate for both within the profession and with the general public.”): As part of their undergraduate studies, graduate students have taken general education courses that cover reading, writing, listening and speaking effectively. These concepts are reinforced by the format of design critique employed throughout the studio sequence. The studio environment introduces and hones the student’s ability to speak and listen effectively. Architecture students become well versed in public speaking and in listening and responding to the comments and criticisms of a jury. In addition to studio courses, primary courses in which this criterion is fulfilled are ARCH 510, an architectural theory seminar that requires the students to use reading, writing, and speaking skills in direct relation to architectural content. Every design studio develops a student’s ability to represent architectural designs in various media. The courses dedicated to laying the foundation of this sequence are ARCH 521-522: Visual Communications. In these courses, students develop orthographic drafting, sketching, perspective, collage, photography, model making, as well as digital skills in drawing, rendering, and digital fabrication. Computer design and representation skills are incorporated into studio work, where digital design and fabrication is presented and employed. The scale and scope continues to increase until, finally, the students graphically and succinctly present a year-long design thesis project to an outside jury. ARCH 536, an Architectural Design Inquiry course, requires students to produce a thesis document in which a theoretical, conceptual, and professional position for an architectural project is defined. During the thesis year and final presentations, students fulfill this criterion in various ways, including a thesis book that enunciates an architectural proposition or position, documents the research, site, program, precedents, and design, and critically assess the design.

A.2 – Design Thinking Skills (“Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.”): The architectural theory sequence begins with an introductory theory course, ARCH 510, where students are exposed to the history of architectural theory in order to establish a historical foundation for an assessment of architectural ideas from Vitruvius to current-day architecture. Next, ARCH 511 presents students with historic and contemporary theorists and encourages them to develop their own critical approach to conceptualizing architecture. In ARCH 532, through the study of precedents, students explore design thinking skills as applied by exemplary architects. Finally, in ARCH 536, the thesis students craft their own individual project, program, and critical approach to architectural design and urban issues. Students tend to choose thesis projects that address critical issues in contemporary architectural discourse, and engage in relevant design research to develop an understanding of the challenges of architecture as simultaneously a building and a cultural endeavor.

A.3 – Investigative Skills (“Ability to gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.”): In the theory and methods sequence (ARCH 510, ARCH 511, and ARCH 519, which was until 2017-18 listed as ARCH 520) students are required to conduct research to develop the ability to gather, assess,

record, apply and critically examine information. The skills learned in those courses are used comprehensively in ARCH 536, when students are required to produce a thesis book documenting a year-long thesis research and design. Each student develops a succinct record and documentation that defines the theoretical, conceptual, and professional position of a thesis project. The thesis requires each student to identify relevant sources that relate to the architectural problems and challenges in their design thesis. This process develops students' skills in research, judgment, selection, interpretation and documentation of sources through writing, drawing, and modeling.

A.4 – Architectural Design Skills (“Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.”): First semester graduate students explore basic architectural and environmental principles in design with small scale buildings (residential) to acquire skills leading to a multi-unit residential project in the spring semester (ARCH 531, ARCH 532). The second-year studio sequence (ARCH 533-534) introduces students to the complexity of the architectural whole with emphasis on building in context, exploring program, site, circulation, accessibility, facade design, materiality, sustainability, codes, and technical systems. Students demonstrate the ability to develop a building based on consistent architectural vocabulary. Faculty also encourage coordination with courses covering building materials, environmental, structural and construction. Projects have real-world sites and explore the fundamentals of the aforementioned concepts, with clear parameters that must be met.

A.5 – Ordering Systems (“Ability to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three- dimensional design.”): Ordering principles of design are introduced to students in the first year primarily in the studio sequence, ARCH 531 and ARCH 532, but also through the Visual Communications courses, ARCH 521 and 522. Ordering Systems are introduced through exercises in drawing, model making, and analysis of architectural precedent . Ordering systems look at the formal implications of existing patterns and form, generating cultural, physical, economic, personal, political, and organizational positions towards those contexts.

A.6 – Use of Precedents (“Ability to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.”): Every design studio project involves the study of relevant architectural precedents. In later years, precedent research is documented and presented in a research booklet. In ARCH 521, first year students are assigned historic precedents to analyze and represent. In second year studio, ARCH 534, in combination with ARCH 480, students research into precedents specific to their studio task, and document that precedent analysis on presentation boards. This type of research culminates in the thesis project and is represented in the thesis book (ARCH 536). Primary evidence for the Use of Precedents criterion can be found in ARCH 521 ARCH 532, and 534.

A.7 – History and Global Culture (“History and Global Culture: Understanding of the parallel and divergent histories of architecture and the cultural norms of a variety of indigenous, vernacular, local, and regional settings in terms of their political, economic, social, ecological, and technological factors.”): The primary evidence for History and Global Culture can be found in ARCH 501 and 502, Analysis of Architectural Precedents I and II, which is a survey of Prehistoric, Ancient Near Eastern Egyptian, Greek, Roman, Early Christian, Byzantine, Islamic, Early Medieval, Romanesque, Gothic, Renaissance, Baroque, Modern and contemporary architecture. Primary evidence for this criterion can also be found in ARCH 510 and 511, covering a survey of cultural and architectural theories stretching to the present day.

A.8 – Cultural Diversity and Social Equity (“Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity of access to sites, buildings, and structures.”): Architecture History and theory courses (ARCH 501 and 502, Analysis of Architectural Precedents I and II, ARCH 510, Contemporary Architecture and Planning Theories, and ARCH 550,

Ethics in the Built Environment) position the study of architecture within diverse social and cultural environments and time periods including contexts of religion, politics, philosophy, culture and society.

B.1 – Pre-Design (“Ability to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.”): Although this is a criterion that is introduced within the realm of every design studio, the primary evidence is found in third-year “Pre-Design” course (ARCH 519,) taught as a co-requisite with Architectural Design Inquiry (ARCH 536), where each student engages in a Comprehensive Design project that includes the Pre-Design phase. The course fosters the spirit of in-depth design inquiry and research by utilizing a thesis to link architectural theory and building programming pre-design in a meaningful manner. Students choose their own thesis topics, select an appropriate site, craft a building program appropriate to the practical conditions and theoretical constructs of the thesis, and subsequently produce a comprehensive design project that embodies the thesis idea.

B.2 – Site Design (“Ability to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.”): Beginning with the first year studio (ARCH 531), all studio projects have a real-world site. Students are increasingly required to react and incorporate appropriate contextual issues in relation to site conditions as they progress through the studio sequence. ARCH 531 presents a series of site conditions to introduce a variety of contextual and topographical relationships, where students must represent the manipulation of contour lines. In ARCH 532, students work in an urban environment, where they are required to conduct an urban site analysis. This sequence repeats in the second year studios, ARCH 533, and 534, where the Fall studio, once again, concentrates on a hilly rural site, emphasizing design with nature, and the Spring studio concentrates on an urban location.

B.3 – Codes and Regulations (“Ability to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards.”): Every studio requires that the designs produced comply with ADA requirements. First year studios (ARCH 531 and 532) provide basic information on incorporating accessibility in the design process. In second year studios (ARCH 533-534), students are required to complete accessibility, egress and fire code diagrams for their projects, and include considerations for egress code requirements. Students are introduced to Life-Safety in materials considerations, sprinkler systems, and egress codes and conditions in ARCH 503 and 504 and AE 211 and AE424. In their Professional Practice class (ARCH 451), students are exposed to life-safety codes and zoning regulations, and perform a code analysis, including egress, on their schematic project designs. In this course, the students also identify twelve local conditions of non-compliance, conduct field investigations and propose compliant solutions.

B.4 – Technical Documentation (“Ability to make technically clear drawings, prepare outline specifications, and construct models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.”): Materials and Building Construction I and II (ARCH 503-504) courses introduce construction documentation, especially wall section studies. Specifications are also covered in these two courses and in ARCH 451, Professional Practice. ARCH 480, or Technical Systems Integration, which is offered in conjunction and close coordination with ARCH 534 and comprehensive design, emphasizes technical research, integration, and documentation in relation to the proposed design project. Drawings and models aim toward a comprehensive understanding of a building’s assembly.

B.5 – Structural Systems (“Ability to demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system”): Students are required to take two structures courses: AE 421 and AE

422. The courses cover a general and conceptual introduction to structures, while providing focus on structures related to materials and systems of construction. AE 421 deals with wood and steel, while AE 422 focuses on masonry and reinforced concrete. The structures sequence occurs in the first year. Therefore, students are able to begin to incorporate appropriate structural systems in their studio design projects. Structural system integration is a part of the studio sequence in the second year: ARCH 533 and ARCH 534, which is taught in parallel with ARCH 480, Technical Systems Integration.

B.6 – Environmental Systems (“Ability to demonstrate the principles of environmental systems’ design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.”): There are two courses in the Environmental Control Systems sequence, AE 211 and AE 424. In these courses, students learn about the fundamental principles and applications of environmental systems in building (HVAC, acoustics, plumbing, lighting and fire and life safety). These courses are completed in the second year, by which time students are expected to take into consideration the interdependence of building form, massing, technical and wall systems in their studio courses (ARCH 533-534). ARCH 480, which is taught in parallel to 534, also integrates environmental control systems into the studio project.

B.7 – Building Envelope Systems and Assemblies (“Understanding of the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.”): Materials and Building Construction I and II (ARCH 503-504) introduce materials and assemblies, while the AE 211 and 424 sequence examines the building envelope calculations and considerations for optimal envelope performance. In the fourth studio and thereafter students are able to incorporate this knowledge into their design work. Again, ARCH 480 works in conjunction with ARCH 534, in comprehensively examining building systems to each design project.

B.8 – Building Materials and Assemblies (“Understanding of the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies based on their inherent performance, including environmental impact and reuse.”): Primary evidence for this criterion is found in two foundation courses, Materials and Building Construction I & II, or ARCH 503-504, that introduce wood/steel and masonry/reinforced concrete respectively. These courses are taught concurrently with AE 421 and 422, which are structures courses organized by the same materials as ARCH 503-504. Students are able to incorporate knowledge of Building Materials and Assemblies into their design projects in subsequent studios, especially through ARCH 480 in second year.

B.9 – Building Service Systems (“Understanding of the basic principles and appropriate application and performance of building service systems, including lighting, mechanical, plumbing, electrical, communication, vertical transportation, security, and fire protection systems.”): Building Service systems are covered in AE 211 and 424. Second year studios (ARCH 533 and 534) develops an understanding of vertical transportation. All systems are presented to students and integrated into a comprehensive project through ARCH 480 (the Technical Systems Integration course).

B.10 – Financial Considerations (“Understanding of the fundamentals of building costs, which must include project financing methods and feasibility, construction cost estimating, construction scheduling, operational costs, and life-cycle costs.”): During the first year Spring studio, dealing with unitized housing solutions, students study the effects of budgeting within design decisions. In ARCH 451, students are presented with the importance and use of construction cost control techniques including establishing a realistic budget with the client, estimates, early contractor input, keeping up-to-date with cost trends, the relationship of the global economy (such as China’s impact on the cost of construction materials) and the proper use of Value Engineering. Students prepare an Architect’s Budgetary Estimate of existing buildings with known costs.

C.1 – Research (“Understanding of the theoretical and applied research methodologies and practices used during the design process.”): As a research-intensive faculty within a Research 1 University, every studio and course involves research in one way or another. There are however, three courses that directly deliver content and require responses from students. ARCH 520, Methods of Inquiry (in 2018 this course number and name was changed to ARCH 519 Research in Architecture and Urban Design) , investigates different research methods, both traditional, and non-traditional, available to architects. The students are asked to determine a topic, and research its historic, theoretical, social, and economic contexts, and deliver a paper that thus analyzes the topic. This topic is then researched further in ARCH 536, Design Inquiry studio, and formulated into a thesis that requires applied research for its success. Students produce a thesis book that documents both the thesis research and its architectural products.

C.2 – Integrative Evaluations and Decision-Making Design Process (“Ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.”): The capstone project of the Master of Architecture curriculum is the thesis project conducted in the third year through two semesters of ARCH 536, Architectural design Inquiry. Working in conjunction with ARCH 520, “Methods of Inquiry” (now ARCH 519, see above), and having already completed ARCH 480, Technical System Integration, the thesis project demonstrates skills in identifying problems, assessing solutions, evaluating and assessing possible variables, setting evaluative criteria, and most importantly, in gauging the possibility of producing a synthetic proposal that not only maintains the conceptual goals of the design, but also confirms its technical potential and constructability within economic, social and cultural envelopes. Evidence of this criterion will be found in the presentation drawings, and the accompanying thesis book.

C.3 – Integrative Design (“Ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.”): The studio sequence in the Master of Architecture program builds in complexity towards an integrated design solution in the fourth semester studio, which lays the ground-work for the subsequent third year thesis. Working in conjunction with Technical System Integration (ARCH 480), the fourth semester studio, ARCH 534, includes all aspects of an integrated project listed above. Evidence of this criterion will be found in the presentation drawings, and the technical documentation produced for ARCH 480, which is offered concurrently with studio. Each student presents a presentation document addressing each of the “criteria” listed in Integrative Design.

D.1. – Stakeholder Roles in Architecture (“Understanding of the relationships among key stakeholders in the design process—client, contractor, architect, user groups, local community—and the architect’s role to reconcile stakeholder needs.”): The second-year studios, ARCH 533 and ARCH 534, investigate established local building projects and students meet with the architects, clients, local officials, and contractors as a part of the introductory process. At mid and/or final reviews, the client, architect, or other stakeholders return to give feedback on the work. In ARCH 451 lecture modules review the different types of potential clients, as well as their differing needs and expectations for architectural services. Practicing architects, as guest speakers, discuss their relationships with stakeholders. Additionally, student teams of four research and present papers on the following topics: The Architecture of the State (The Role of the Architect in Public and Religious Buildings Through History) and The Patron of Architecture.

D.2 – Project Management (“Understanding of the methods for selecting consultants and assembling teams; identifying work plans, project schedules, and time requirements; and recommending project delivery methods.”): In Architectural Professional Practice (ARCH 451), lecture modules on various client types and differing expectations for architectural services, business development, preparing Request for Proposals, forms of contract (AIA and others), contract negotiation, payment methods, the role and selection of consultants, office management including human resources, and the pros and cons of various

project delivery methods. Project delivery methods such as design-bid-build, fast-track, GMP, design-build and other hybrid forms of project delivery are presented and discussed in class. Focus is also placed on the architect's role transition and responsibilities during construction administration. The students have an opportunity to visit architectural offices in Washington, D.C. or New York City, and practicing architects provide lectures on project management in office practice.

D.3. – Practice Management Business Practices (“Understanding of the basic principles of a firm’s business practices, including financial management and business planning, marketing, organization, and entrepreneurship.”): ARCH 451 employs lecture modules to help students develop an understanding of the profession of architecture, its current structure, office organization/legal structure and financial management and business planning, time and project management and the challenges and future opportunities for the profession. Profiles of various firm types are presented and discussed.

D.4 – Legal Responsibilities (“Understanding of the architect’s responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts”): The architect’s legal responsibilities are discussed in relation to course materials in ARCH 503-504 and AE 421-422 and 424. Architectural Professional Practice, ARCH 451 lecture modules include: architectural registration law, building codes / regulations, professional service contracts (AIA and other forms), zoning, environmental historic preservation, accessibility and other laws and ordinances which impact the design profession. Student teams conduct a community survey to identify non-compliant accessibility conditions, cite the related standard and propose corrective solutions to the condition. Students also submit a code and accessibility analysis of their concurrent studio project. Readings from The ADA Handbook and other materials are required.

D.5 – Professional Conduct (“Understanding of the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct.”): Ethics in architecture is discussed in ARCH 550 to provide a general historical and theoretical context to students. The primary evidence, however, can be found in ARCH 451 where readings, class lectures, and discussions explore contemporary ethics and professional judgment issues including professional organizations’ rules of conduct and ethics. Case studies are reviewed and discussed in class. The role of the AIA and NCARB in the profession is also presented. A student team researches and presents “The Social Responsibility of the Architect” to the class. Readings from *Ethics and the Practice of Architecture* and other materials are required.

II.2.1 Institutional Accreditation

The Pennsylvania State University is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104 (267-284-5000). The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The Pennsylvania State University was first accredited in 1921 and was reaffirmed on June 25, 2015. The next self-study evaluation is scheduled for 2024-25, and the next Periodic Review Report is due June 1, 2020. The most recent letter from the Middle States Commission on Higher Education regarding Penn State’s term of accreditation is included on the following pages.



Middle States Commission on Higher Education

3624 Market Street, Philadelphia, PA 19104-2688 Tel: 215-625-5000 Fax: 215-625-5501
www.msche.org

OFFICE OF THE
PRESIDENT OF THE
PROVOST

2015 JUN 29 A 11:42
2015 JUN 30 A 9:24

June 26, 2015

Dr. Eric J. Barron
President
The Pennsylvania State University
201 Old Main Building
University Park, PA 16802

Dear Dr. Barron:

At its session on June 25, 2015, the Middle States Commission on Higher Education acted:

To reaffirm accreditation. To request a monitoring report, due April 1, 2017, documenting (1) further implementation of the periodic assessment of the effectiveness of institutional leadership and governance (Standard 4); (2) further implementation of the periodic assessment of the effectiveness of administrative structures and services (Standard 5); (3) review of the enrollment management plan for recruitment, retention, marketing, and advertising, particularly with respect to the enrollment of under-represented students, consistent with the institution's priorities and values (Standard 8); (4) further implementation of the assessment of general education outcomes within the institution's overall plan for assessing student learning, and evidence that such assessment results are utilized for curricular improvement (Standards 12 and 14); and (5) further evidence of articulated student knowledge, skills, and competency levels within existing certificate programs (Standard 13). The Periodic Review Report is due June 1, 2020.

Enclosed for your information is a copy of the Statement of Accreditation Status for your institution. The Statement of Accreditation Status (SAS) provides important basic information about the institution and its affiliation with the Commission, and it is made available to the public in the Directory of Members and Candidates on the Commission's website at www.msche.org. Accreditation applies to the institution as detailed in the SAS; institutional information is derived from data provided by the institution through annual reporting and from Commission actions. If any of the institutional information is incorrect, please contact the Commission as soon as possible.

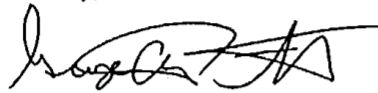
Please check to ensure that published references to your institution's accredited status (catalog, other publications, web page) include the full name, address, and telephone number of the accrediting agency. Further guidance is provided in the Commission's policy statement *Advertising, Student Recruitment, and Representation of Accredited Status*. If the action for your institution includes preparation of a progress report, monitoring report or supplemental report, please see our policy statement on *Follow-up Reports and Visits*. Both policies can be obtained from our website.

The Middle States Commission on Higher Education accredits institutions of higher education in Delaware, the District of Columbia, Maryland, New Jersey, New York, Pennsylvania, Puerto Rico, the U.S. Virgin Islands, and other locations abroad.

Dr. Eric J. Barron – Page 2

Please be assured of the continuing interest of the Commission on Higher Education in the well-being of The Pennsylvania State University. If any further clarification is needed regarding the SAS or other items in this letter, please feel free to contact Dr. Tito Guerrero, Vice President.

Sincerely,

A handwritten signature in black ink, appearing to read 'George A. Pruitt', with a stylized, sweeping flourish extending to the right.

George A. Pruitt, Ph.D.
Chair

II.2.2 Professional Degree and Curriculum

The NAAB accredits the following professional degree programs with the following titles: the Bachelor of Architecture (B. Arch.), the Master of Architecture (M. Arch.), and the Doctor of Architecture (D. Arch.). The curricular requirements for awarding these degrees must include professional studies, general studies, and optional studies.

The number of credit hours for each degree is specified below. All accredited programs must conform to the following minimum credit hour requirements:

Master of Architecture. Accredited degree programs awarding the M.Arch. degree may take three forms:

Single Institution (SI): Candidates for this degree have completed at least 168 semester credit hours, or the quarter-hour equivalent, of which at least 30 credit hours are taken at the graduate level and all of which are delivered or accounted for (either by transfer or articulation) by the institution that will grant the degree. The program is a combination of undergraduate and graduate education. Combined undergraduate and graduate degree programs structured in this manner must include general studies, professional studies, and optional studies.

Preprofessional-plus: Candidates for this degree have completed at least 168 semester credit hours, or the quarter-hour equivalent, of which at least 30 credit hours are taken at the graduate level, and hold a preprofessional degree in architecture or a related field before admission to the graduate degree program. The graduate-level academic course work must include professional studies and optional studies.

Non-preprofessional degree-plus: Candidates for this degree have completed at least 168 semester credit hours, or the quarter-hour equivalent, of which at least 30 credit hours are taken at the graduate level, and hold an undergraduate degree from a regionally accredited institution before admission to the graduate degree program. The graduate-level academic course work must include professional studies and optional studies.

Outline of M.Arch. Curriculum

The Master of Architecture curriculum currently requires the completion of 57 credits of graduate course work. In addition, to fulfill the requirements of professional accreditation, students will be required to undertake 40 credits of preparatory classes: 37 credits in the 400-599 (graduate) level and 3 credits in the 0-399 (undergraduate) level. Under the existing program, the students will be required to successfully complete the following courses:

List of Courses:

57 required credits [bold face]

40 preparatory credits [light face]

MASTER OF ARCHITECTURE DEGREE REQUIREMENTS	57
ARCH 510 Contemporary Architecture & Planning Theories	3
ARCH 533 Architectural Design III	6
ARCH 534 Architectural Design IV	6
ARCH 451 Architectural Professional Practice	3
ARCH 480 Technical Systems Integration	3
A total of 6 credits from ARCH 495 Internship;	6
ARCH 496 Independent Study; ARCH 499 Foreign Study	
ARCH 511 Theoretical Perspectives in Architecture	3
ARCH 519 Research in Architecture and Urban Design	3
ARCH 536 Design Inquiry	6
ARCH 550 Ethics in the Built Environment	3
ARCH 536 Design Inquiry	6
Electives	9
GRADUATE PREPARATORY COURSE REQUIREMENTS	40
AE 211 Introduction to Environmental Control Systems	3
AE 421 Architectural Structural Systems I	3
AE 422 Architectural Structural Systems II	3
AE 424 Environmental Control Systems I	3
ARCH 501 Analysis of Architectural Precedents I	3
ARCH 502 Analysis of Architectural Precedents II	3
ARCH 503 Materials and Building Construction I	3
ARCH 504 Materials and Building Construction II	3
ARCH 521 Visual Communications I	2
ARCH 522 Visual Communications II	2
ARCH 531 Architectural Design I	6
ARCH 532 Architectural Design II	6

M.Arch. Program: Recommended Academic Plan 2018-2019

FALL SEMESTER 1	17
ARCH 501 Analysis of Architectural Precedents I	3
ARCH 503 Materials and Building Construction I	3
ARCH 521 Visual Communications I	2
ARCH 531 Architectural Design I	6
AE 421 Architectural Structural Systems I	3
SPRING SEMESTER 2	17
ARCH 502 Analysis of Architectural Precedents II	3
ARCH 504 Materials and Building Construction II	3
ARCH 522 Visual Communications II	2
ARCH 532 Architectural Design II	6
AE 422 Architectural Structural Systems II	3

FALL SEMESTER 4	15
ARCH 451 Architectural Professional Practice	3
ARCH 510 Contemporary Architecture and Planning Theories	3
ARCH 533 Architectural Design III	6
AE 211 Introduction to Environmental Control Systems	3
SPRING SEMESTER 5	15
ARCH 480 Technical Systems Integration	3
ARCH 534 Architectural Design IV	6
Elective	3
AE 424 Environmental Control Systems	3
SUMMER SEMESTER 5	6
ARCH 495 Internship	Variable
ARCH 496 Independent Studies	Variable
ARCH 499 Foreign Studies	Variable

FALL SEMESTER 6	15
Elective	3
ARCH 519 Research in Architecture and Urban Design	3
ARCH 536 Design Inquiry	6
ARCH 550 Ethics in the Built Environment	3
SPRING SEMESTER 7	12
ARCH 536 Design Inquiry	6
ARCH 511 Theoretical Perspectives in Architecture	3
Elective	3
Total Program Credits	97

Curriculum Review & Development

As with our other programs, the curriculum of the professional M.Arch. program will regularly be reviewed through a curriculum committee, with reporting to the faculty, students and the Department Head. Decisions are voted upon in a democratic process, in faculty meetings, and changes promulgated thereafter.

Part Two (II) Section 3—Evaluation of Preparatory Education

Admission to the program will be conducted through a graduate admissions committee. Prior to the faculty committee's review, all applicants are sorted into two categories and reviewed in those categories: Those with a pre-professional architecture degree, and those without. After the quantitative and qualitative review conducted by the entire faculty of the department, those deemed to be admissible are admitted into the program. Those with a pre-professional architecture degree that accept our offer to attend our program are reviewed individually for the possibility of advanced standing, based on previously completed course-work. These applicants who have completed architecture-related coursework in an architecture, architectural engineering, or other discipline outside of architecture, will have an initial review of their transcripts to assess completion of materials covered in preparatory classes. The student is then instructed to fill an "advanced standing" form, and take the form along with the transcript, all course material, including the course syllabus, all required reading material, tests, quizzes, exams, exercises and papers to the faculty teaching the class at Penn State. The faculty will then gauge the possibility of advanced standing, based on both NAAB SPC and course content. Faculty conduct in-person written and oral examinations, review folio of work, and written samples, and evaluate each individual. The advanced standing forms with signatures from the faculty, Director of the Graduate Program, and the Department Head are maintained in the student file. Accordingly, time to complete degree requirements may be reduced to five semesters (two years.)

Part Two (II): Section 4 - Public Information

- II.4.1 Statement on NAAB Accredited Degrees
- II.4.2. Access to NAAB Conditions and Procedures
- II.4.3. Access to Career Development Info
- II.4.4 Public access to APRs and VTRs
- II.4.5 ARE Pass Rates
- II.4.6 Admission and Advising
- 11.4.7 Student Financial Information

II.4.1 Statement on NAAB-Accredited Degrees

Similar to our accredited B.Arch. degree, the description of the Master of Architecture degree program appears on The Penn State University Faculty Senate web site, as below:

The Department of Architecture is a member of the Association of Collegiate Schools of Architecture and the Master of Architecture Degree is accredited by the National Architectural Accrediting Board. The major provides for the education of architects at the professional level.

"In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 8-year, 3-year, or 2-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an

accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree." (Excerpt from NAAB Conditions for Accreditation, 2009 Edition)

All incoming students are informed of the NAAB Guide to Student Performance Criteria during a fall semester orientation session. A paper copy is distributed. Students are also informed that the NAAB site is listed on the architecture web site at <https://stuckeman.psu.edu/arch/accreditation> and the NAAB web site at: <http://www.naab.org/>. The same information is shared with all faculty at the first faculty meeting of the academic year. In addition, during the candidacy period, all information regarding the candidacy status of the program was shared at all above venues.

II.4.2 Access to NAAB Conditions and Procedures

The following documents are directly linked to the Penn State Architecture program website:

[2014 NAAB Conditions for Accreditation](#)

[NAAB Procedures for Accreditation](#) (edition currently in effect)

II.4.3 Access to Career Development Information

The following resources are linked to Penn State's architecture program website:

The NCARB Handbook for Interns and Architects

Studio Culture: Stories and Interpretations

The Emerging Professional's Companion

NAAB

www.NCARB.org

www.aia.org

www.aiaa.org

www.acsa-arch.org

II.4.4 Public Access to APRs and VTRs

The following documents pertaining to accreditation are available in the Architecture Program office as well as our [website](#).

All *Annual Reports*, including the narrative

All NAAB responses to the *Annual Report*

The final decision letter from the NAAB

The most recent APR

The final edition of the most recent *Visiting Team Report*, including attachments and addenda

II.4.5 ARE Pass Rates

The NAAB website and ARE Pass Rates are both linked on the Arch/Accreditation page. The pass rates currently relate to our accredited B.ARCH. program: <https://stuckeman.psu.edu/arch/accreditation>

II.4.6. Admissions and Advising

Application forms and instructions

All applications for admission to the Master of Architecture program will include:

1. a complete Graduate School application found online at <http://www.gradsch.psu.edu/portal/>
2. official copies of all undergraduate transcript[s]
3. Graduate Record Exam [GRE] scores

4. three letters of recommendation from faculty members familiar with the applicant's academic history
5. International Students must also include in their application:
 - * TOEFL scores for international applicants (580 or higher on the paper-based test / 80 or higher with a 19 in speaking on the internet-based test)
 - * an online portfolio described in detail at www.arch.psu.edu including 5-25 graphic samples of the applicant's work
 - * an essay describing the applicant's professional goals, proposed subject of study, and anticipated area of architectural inquiry

This will permit us a thorough evaluation of every student's credentials.

Admission requirements/procedures

Admissions requirements, admissions decisions procedures, including policies and processes for evaluation of transcripts and portfolios (where required), and decisions regarding remediation and advanced standing

Regardless of degree, all applicants must have received a baccalaureate degree with a minimum undergraduate grade-point average [GPA] of 3.0 on a 4.0 scale; a full description of the standards for baccalaureate degrees and the exceptions to the baccalaureate degree requirements for equivalent international degrees may be found at <http://www.gradschool.psu.edu/prospective-students/requirements/>

Evaluation of Preparatory/Pre-professional education

Forms and a description of the process for the evaluation of pre-professional degree content

Admission to the program will be conducted through a graduate admissions committee. Prior to the faculty committee's review, all applicants are sorted into two categories and reviewed in those categories: Those with a pre-professional architecture degree, and those without. After the quantitative and qualitative review conducted by the entire faculty of the department, those deemed to be admissible are admitted into the program. Those with a pre-professional architecture degree that accept our offer to attend our program are reviewed individually for the possibility of advanced standing, based on previously completed course-work. These applicants who have completed architecture-related coursework in an architecture, architectural engineering, or other discipline outside of architecture, will have an initial review of their transcripts to assess completion of materials covered in preparatory classes. The student is then instructed to fill an "advanced standing" form, and take the form along with the transcript, all course material, including the course syllabus, all required reading material, tests, quizzes, exams, exercises and papers to the faculty teaching the class at Penn State. The faculty will then gauge the possibility of advanced standing, based on both NAAB SPC and course content. Faculty conduct in-person written and oral examinations, review folio of work, and written samples, and evaluate each individual. The advanced standing forms with signatures from the faculty, Director of the Graduate Program, and the Department Head are maintained in the student file. Accordingly, time to complete degree requirements may be reduced to five semesters (two years.)

Requirements and forms for applying for financial aid and scholarships

All applicants to the architecture program are automatically considered for "Grant-in-Aid" (GIA), Penn State's terminology for tuition scholarship and teaching/research assistantship. As a new graduate program, we do not yet have the number of GIA's needed to support all of our students. But we are making progress towards it. More information on financial aid and scholarships is available at:

- <http://www.gradschool.psu.edu/graduate-funding/funding/assistantships/>
- http://artsandarchitecture.psu.edu/philanthropy/sala_awards

Student diversity initiatives

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University.

The University, in order to address diversity issues and to provide a recruitment tool, provides a Bunton-Waller minority scholarship to incoming graduate students. The Department of Architecture has taken advantage of this opportunity and has been able to bring minority students to PSU with a full tuition coverage and stipend. The University covers both the tuition and the stipend for the first year, and the Department covers these costs for the second year. In addition, the Department has a very strong cohort of students engaged in NOMAS (National Organization of Minority Architecture Students.) The Department annually sponsors the NOMAS student group to attend annual meetings. We have also purchased booth space at this event, where we present opportunities available at Penn State.

II.4.7 Student Financial Information

1. Penn State's Office of Student Aid is the primary resource regarding financial aid: <http://studentaid.psu.edu/>
2. Students can access <http://www.bursar.psu.edu/> for an initial estimate for all tuition, fees, and books.

III.1.1: Annual Statistical Reports

Institutional and Program Characteristics

This section provides statistical data supporting activities and policies related to social equity in the program, as well as data points that demonstrate student success and faculty development.

Department Student Characteristics: Student Demographics

<i>Department</i>	<i>2015-16</i>			<i>2016-17</i>		
Ethnicity	Male Total	Female Total	Grand Total	Male Total	Female Total	Grand Total
American Indian or Alaska Native	0	0	0	0	0	0
Asian	0	0	0	0	0	0
Native Hawaiian or other Pacific Islander	0	0	0	0	0	0
Black or African American	0	0	0	0	0	0
Hispanic/Latino	0	0	0	1	0	1
White	4	5	9	2	2	4
Two or more races	0	0	0	0	0	0
Nonresident alien	0	0	0	0	0	0
Race and ethnicity unknown	10	16	26	4	13	17
TOTAL	14	21	35	7	15	22

University Student Characteristics: Student Demographics

<i>University</i>	<i>2015-16</i>			<i>2016-17</i>		
Ethnicity	Male Total	Female Total	Grand Total	Male Total	Female Total	Grand Total
American Indian or Alaska Native	2978	2783	5761	3219	2958	6177
Asian	55	49	104	45	58	103
Native Hawaiian or other Pacific Islander	2355	2932	5287	2405	3116	5521
Black or African American	3033	2352	5385	3072	2479	5551
Hispanic/Latino	52	57	109	53	62	115
White	1152	1014	2166	1319	1192	2511
Two or more races	28040	33615	61655	27961	33357	61318
Nonresident alien	1187	1136	2323	1257	1217	2474
Race and ethnicity unknown	3725	5465	9190	3942	5964	9906
TOTAL	42577	49403	91980	43273	50403	93676

Qualifications of M.Arch. Students Admitted to the Architecture Department

		Applications	Offers	Accepts
2015-16	Number	84	52	7
	Avg. GRE Verbal Score	146	150	152
	Avg. GRE Quantitative Score	157	157	160
	Avg. GRE Analytical Score	3.1	3.6	3.4
	Avg. GPA	3.45	3.52	3.40
2016-17	Number	96	50	4
	Avg. GRE Verbal Score	147	149	149
	Avg. GRE Quantitative Score	157	159	159
	Avg. GRE Analytical Score	3	3.2	3.9
	Avg. GPA	3.37	3.46	3.28

Time to Graduation

	<i>2015-16</i>	<i>2016-17</i>
Normal Time to Completion: (number of quarters or semesters in which students are expected to complete all requirements for the NAAB-accredited degree)	7	7
Percentage of students who completed in normal time	86%	87%
Percentage of students who completed in 150% of normal time.	14%	13%

Department Faculty Characteristics: Faculty Demographics

	<i>2015-16</i>			<i>2016-17</i>		
Ethnicity	Male Total	Female Total	Grand Total	Male Total	Female Total	Grand Total
American Indian or Alaska Native	0	0	0	0	0	0
Asian	2	0	2	2	0	2
Native Hawaiian or other Pacific Islander	0	0	0	0	0	0
Black or African American	1	1	2	2	1	3
Hispanic/Latino	1	0	1	3	1	4
White	12	8	20	14	11	25
Two or more races	0	0	0	0	0	0
Nonresident alien	0	0	0	0	0	0
Race and ethnicity unknown	2	1	3	1	0	0
Total	18	10	28	22	13	34

University Faculty Characteristics: Faculty Demographics

	<i>2015-16</i>			<i>2016-17</i>		
Ethnicity	Male Total	Female Total	Grand Total	Male Total	Female Total	Grand Total
American Indian or Alaska Native	5		5	7	1	8
Asian	216	85	301	221	94	315
Native Hawaiian or other Pacific Islander						
Black or African American	48	54	102	53	56	109
Hispanic/Latino	57	48	105	58	50	108
White	1345	851	2196	1327	843	2170
Two or more races	10	9	19	11	8	19
International	126	64	190	129	63	192
Race and ethnicity unknown	96	64	160	103	70	173
Total	1903	1175	3078	1909	1185	3094

Department of Architecture Faculty Promoted and/or Tenured

2016/17

Ute Poerschke Promoted to Full Professor

2015/16

Jose Duarte Received immediate Tenure [as Full Professor]

2014/15

Rebecca Henn Promoted to Associate Professor with Tenure

2013/2014

Marcus Shaffer Promoted to Associate Professor with Tenure

2012/2013

James Cooper Promoted to Associate Professor with Tenure

2011/2012

Mehrdad Hadighi Received immediate Tenure [as Full Professor]
 Darla Lindberg Promoted to Full Professor
 Lisa Iulo Promoted to Associate Professor with Tenure
 Ute Poerschke Received Tenure [as Associate Professor]

2010/2011

Nathaniel Belcher Received immediate Tenure [as Full Professor]

2007/2008

Alexandra Staub Received Tenure [as Associate Professor]

Faculty Receiving Promotions

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
<i>Faculty in the accredited program</i>											
Assistant to Associate Professor	1				2	1	1	1			
Associate to Full Professor					1					1	
<i>Faculty in the institution</i>											
Assistant to Associate Professor	86	92	75	77	86	63	87	71	67	70	51
Associate to Full Professor	<i>Data not available</i>						58	49	54	55	56

Faculty Receiving Tenure

	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Faculty in the accredited program	1				2	1	1	1		
Faculty in the institution	136	134	104	101	104	97	124	106	107	107

Faculty Maintaining Licenses in U.S. and Foreign Jurisdictions

Name	Jurisdiction
Luis Aviles	Spain
Reggie Aviles	PA
Nathaniel Belcher	PA, FL, LA, OH
Timothy Boothby	PA,WA,CA
Cathy Braasch	PA, NY
Laia Celma	Spain
Christine Gorby	A.R.C.U.K, R.I.B.A. (UK)
Denson Groenendaal	PA
Mehrdad Hadighi	NY
Jawaid Haider	Karachi, Pakistan
Rebecca Henn	NY, PA
Lisa Iulo	NJ, NY, PA
Loukas Kalisperis	Greece
James Kalsbeek	OH
Darla Lindberg	ND, PA
Katsuhiko Muramoto	Osaka, Japan
Almudena Ribot	Spain
Kevin Parfitt	PA, NY, NJ, MD,VA,OH
Ute Poerschke	Bavaria, Germany
Lee Washesky	NY, PA
Dan Willis	PA
Scott Wing	PA
Malcolm Woollen	PA

III.1.2: Interim Progress Reports

All NAAB Annual Reports submitted by the Department of Architecture since the last accreditation visit of 2016 and prior are available on the Architecture Department website. We have not been required to submit any interim progress reports.

At Penn State it is the responsibility of the Budget Office to develop and produce institutional databases to provide the source of official data for both internal and external reporting. The Office of Institutional Planning and Assessment forwards all requests for institutional data to the budget office. The letter below from Rachel Smith, University Budget Officer, confirms that the data that office provides to the Department of Architecture for the purpose of preparing the NAAB Annual Reports is consistent with data that they submit to other reporting agencies.



PennState
Office of Planning
and Assessment

The Pennsylvania State University
203 Rider Building
University Park, PA 16802
814-863-8721
OPA@psu.edu
www.opa.psu.edu

May 8, 2018

Ms. Helene Combs Dreiling, FAIA
Interim Executive Director
National Architectural Accrediting Board
1735 New York Avenue, NW
Washington, DC 20006

Dear Ms. Combs Dreiling,

The annual reports that are provided to the National Architectural Accrediting Board (NAAB) are prepared and submitted by the Department of Architecture, assembling data from a variety of sources. Data sourced from official central University repositories (e.g. the data warehouse, Factbook, and the University's business intelligence solution) are consistent with data sources used for reports sent to other national and regional agencies, including the National Center for Education Statistics (NCES). Minor inconsistencies may be found between the data reported to NAAB and to NCES based upon the timing of the data retrieval, as well as differences in data definitions.

Sincerely,

Lance C. Kennedy-Phillips, Ph.D.
Vice Provost for Planning and Assessment
MSCHE Accreditation Liaison Officer
The Pennsylvania State University
lck7@psu.edu

Section 4 Supplemental Information

This section links to the following documents:

- The Department of Architecture in the H. Campbell and Eleanor R. Stuckeman School of Architecture and Landscape Architecture Studio Culture Policy .
- Academic Integrity: See Policy: G-9 – Senate Policy: 49-20 and http://artsandarchitecture.psu.edu/students/acad_integrity
- The institution's policies and procedures relative to EEO/AA for faculty, staff, and students:
 - <https://guru.psu.edu/policies/OHR/hr11.html>
 - <https://guru.psu.edu/policies/ad85.html>
- The institution's policy regarding human resource development opportunities, such as sabbatical, research leave, and scholarly achievements: <http://artsandarchitecture.psu.edu/facstaff>
- The policies, procedures, and criteria for faculty appointment, promotion, and when applicable, tenure: <http://artsandarchitecture.psu.edu/facstaff/promten>
- Stuckeman School Strategic Plan: <https://stuckeman.psu.edu/sites/default/files/stuckemanschoolstrategicplan.pdf>
- College of Arts and Architecture Strategic Plan: <http://artsandarchitecture.psu.edu/about/strategic-plan>
- Graduate Bulletin: <http://bulletins.psu.edu/graduate/programs/A/GRAD%20ARCH>
- College of Arts and Architecture: "Strategies for Fostering Diversity, 2014-19": <https://artsandarchitecture.psu.edu/about> (Click on "Diversity and Inclusion")

The following documents can be found at the following file-sharing link:
<https://psu.box.com/v/NAAB-PSU-MArch>

- Descriptions of all courses offered within the Master of Architecture degree program
- Faculty bios
- Department of Architecture Strategic Plan
- Self-Assessment:
 - Alumni & Student Survey
 - Stuckeman School Advisory Board Bios/Notes
- Visiting Lecturers & Critics
- Teaching Assignment Course Matrixes
- Department of Architecture Operating Expenses and Income
- Incoming Funds from Stuckeman School Endowments ('14/'15 to '17/'18)
- Stuckeman School Governance Document
- 2017 Accreditation Letter and Visiting Team Report