

**The Pennsylvania State University  
Department of Architecture**

## **Architecture Program Report for 2014 NAAB Visit for Continuing Accreditation**

**Bachelor of Architecture: 162 credits**

**Year of the Previous Visit: 2008**

**Current Term of Accreditation:**

“At the July 2008 meeting of the National Architectural Accrediting Board (NAAB), the board reviewed the *Visiting Team Report* for The Pennsylvania State University Department of Architecture. As a result, the professional architecture program:

### **Bachelor of Architecture**

was formally granted six-year term of accreditation. The accreditation term is effective January 1, 2008. The program is scheduled for its next accreditation visit in 2014.”

Submitted to: The National Architectural Accrediting Board  
Date: September 7, 2013

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## **PART ONE (I): INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT**

### **Part One (I): Section 1 – Identity & Self-Assessment**

#### **I.1.1 History and Mission**

The Pennsylvania State University 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 96,500 with more than 5,300 full time faculty and another 2,700 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 with continuing education opportunities offered in nearly 300 high schools, in addition to other locations 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 2012 was 96,562 for all locations. As a major research facility, the University administers over \$807 million in sponsored research. Penn State's University Park is the main campus with an undergraduate student population of 36,612, and a graduate enrollment of 6,790. The campus physical plant, valued at \$2.3 billion, includes over 740 general and educational buildings, auxiliary structures, and 6,419 acres of land. The current value of the endowment is close to two billion dollars.

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-two 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 eleven 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 Agriculture, Arts and Architecture, Business Administration, Communications, Earth and Mineral Sciences, Education, Engineering, Health and Human Development, Information Sciences and Technology, The Liberal Arts, and Science. In addition, Capitol Campus at Middletown, Behrend College in Erie, and the Pennsylvania College of Technology in Williamsport, 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 multicampus public research university that educates students from Pennsylvania, the nation and the world, and improves the well being 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 for 2008-2013 is to create a dynamic, rich environment that fosters excellence in research, teaching, learning, collaboration, and presentation across the arts and design disciplines within the College and the University; and, to provide a climate that affirms cultural diversity, encourages internationalization, and positions the College as a leader in the arts within regional, national, and global communities. In five years, we will have helped others within the University understand the ways in which the arts and design disciplines can contribute to research that addresses global problems. We will advance the University's mission in general education, enhanced through online pedagogy where appropriate. Through our public performances, community design services, and exhibition schedule, we will support the University's need for outreach in ways that are unique to Arts and Architecture. Individual artists, designers, and scholars who teach and learn in our College will shape the future of their professions through their creative contributions.

The core values originate from the intrinsic merit of the arts in the life of the university and society. We collectively believe in and value:

- imagination and creativity
- disciplinary mastery and transdisciplinary engagement
- collaboration and individual achievement
- open inquiry and critical dialogue
- diversity and respect
- tradition and change

## 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. Administratively, the Head of the Department of Architecture reported directly to the Dean of

the College of Arts and Architecture. SALA 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 departments heads. Following a major endowment of \$20 million by Cal Stuckeman, the then head of Landscape Architecture, Brian Orland, was appointed as the Interim Director for the Stuckeman School. In 2010, the School hired Nathaniel Belcher as its Director. The Director was expected to provide innovative leadership and advance a vision for the Stuckeman School in both the university and beyond that addressed increasingly complex problems in a global world. The department heads retained their memberships in the 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 membership in key college committees, including the College Promotion and Tenure Committee. The Graphic Design program in the College merged with the Stuckeman School in 2011 and added a new dimension to the Stuckeman School. In the summer of 2013, Director Nathaniel Belcher stepped down and Kelleann Foster, Associate Professor of Landscape Architecture, has been appointed Interim Director. The Stuckeman School will initiate a search for a permanent director in the fall semester of 2013.

Architects and landscape architects share a common mission: to design places and spaces that foster and celebrate humanity. Though professionally they sometimes work independently, their work is complementary and often collaborative. When they collaborate with each other, their designs can be transformative. For these reasons, the departments of architecture and landscape architecture became the School of Architecture and Landscape Architecture. In 2005, thanks to the generosity of an architecture alumnus, Cal Stuckeman, who believed in the power of collaboration, the school would have its own building—the Stuckeman Family Building—and would be called the H. Campbell and Eleanor R. Stuckeman School of Architecture and Landscape Architecture with a new Director. The Stuckeman Family Building has weathered well in the last eight years and has 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 improvement of quality of life in the built and natural environment.

Two centers were established within SALA through endowment funds. First, The Stuckeman Center for Design Computing, created in summer 1998, began as the expansion of an existing design computing center. It has now grown into an advanced design computing media laboratory. While there continues to be a computer lab named the Stuckeman Center, the “center” is in reality distributed throughout the Stuckeman Building. Our philosophy is 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 offers 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 program in Architectural Engineering. In 1922, the Bachelor of Science degree in Architecture was first established. Enrollment reached a high of 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. By 1962 the student population had reached a total of 256.

Initially, the department was a unit within the College of Engineering and Architecture. In January 1963, the department became part of a newly established College of Arts and Architecture. By 1972 the enrollment in Architecture had risen to 480. This large increase in the numbers of students led the faculty



to institute an admissions quota during the same year. This measure was instrumental in maintaining the essential personal contact between faculty and students—a long-held core value. Since that time, the Department of Architecture has remained relatively constant in its average enrollment of 270 students.

In the fall of 1972, the department introduced a new 4+2 program in architecture. This program was formulated by the department through its curriculum committee and endorsed by the faculty. It replaced the five-year curriculum that was in effect since 1948 and consisted of a two-phase, six-year period of study leading to the professional degree of Master of Architecture. This program was encouraged and endorsed by the National Architectural Accrediting Board and related professional associations. The intent of the new program was to create a more open-ended and flexible approach toward architectural education and offer more options and opportunities to the candidate in the pursuit of professional vocations, based on interests and qualifications.

After seven years of administering this program and following an intensive evaluation process, the faculty unanimously decided to return to a more focused five-year curriculum. The faculty determined that an additional fifth year of intensive study would provide a more appropriate knowledge base leading to the desired professional skills. Since March 1979, the emphasis of our organizational structure has been the five-year professional Bachelor of Architecture degree. The five-year professional undergraduate program leading to the Bachelor of Architecture degree requires a total of 162 credits and includes core courses in history, design, technology, and theory. Admission requirements are stringent and are based upon overall academic performance.

Until 1997 the Department also offered a four-year, 135-credit pre-professional program leading to a Bachelor of Science degree. While this option has been eliminated, the Department continues to offer the B.S. degree for those students who choose not to enter the fifth year, or who are deemed ineligible for the B. Arch degree because of academic performance.

Providing study abroad opportunities for our students has long been a central part of our educational mission. For decades, the Department offered study abroad programs in the United Kingdom, Germany, and Italy. In 1991, the Department consolidated these options, moving the program to Rome. Since then, all fourth year students are required to spend one full semester of study in Rome. The quality and location of the instructional facilities have also been key elements to the success of the program. These facilities include studio spaces, classrooms, a library, a computer lab and administrative support areas. In 1992, the Department negotiated a long-term lease for instructional facilities within the Palazzo Doria Pamphili located in the very center of Rome, near the Pantheon. Such a prime location offered a direct and unique “urban laboratory” to our students for their study and experience. In 2009, Romolo Martemucci, a tenured full professor in the department and the long-time Director of the Rome program, retired from Penn State and established the [Pantheon Institute](#) in Rome as its inaugural Director. The Pantheon Institute is officially recognized by the Ministry of Education in Italy (Ministero dell’Istruzione dell’Universita’e Ricerca) as an American institution of higher learning in Rome, Italy. The Pantheon Institute provides and hosts study abroad programs from a variety of colleges and universities, including the Penn State architecture department’s Rome program. The Department has academic control of the Rome program and Professor Martemucci’s directorship ensures continuity in our academic offerings.

Another unique educational opportunity for students was initiated in 1994. The Raymond A. Bowers Program for Excellence in Design and Construction of the Built Environment began as an endowed fund to support interdisciplinary cooperation between the Departments of Architecture, Landscape Architecture and Architectural Engineering. Presently, funding from the Bowers Program endowment is utilized to encourage and support a wide range of interdisciplinary programming including research projects and class instruction. In recent years, the Bowers Program has provided “seed” financial support for projects such as our American Indian Housing Initiative, an architectural lighting laboratory, Penn State’s Solar Decathlon entry, and other similar interdisciplinary projects.

## Architecture Program Mission

The mission of the architecture program 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 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. 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 in 2011, Professor Jawaid Haider was involved in the same capacity since 1998. Professor Haider currently chairs the Facilities Planning Advisory Board (FPAB), 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 continues to actively serve on University Senate as an elected representative of the College. Professor 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 and School levels. Professor Daniel Willis served as the Interim Director of Penn State's [Institute for the Arts and Humanities](#) for the calendar year 2012 and Associate Director for another two years in the past. Last year, Professor Willis chaired the college Promotion and Tenure Committee, Professor Kalisperis chaired the college Faculty Council, and Professor Wing chaired the Stuckeman School Council.

## Overview of Penn State's Approach to Architectural Education

Penn State's professional architecture program is committed to being one of the most innovative, technologically progressive, and pedagogically distinctive programs among its peers. Our goal, like that of many architectural schools, is to equip entrants to the architectural field with well-developed, broad-based skills. In response 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 toward development of

skills in areas they have shown particular interest and talent. Through the development of an academic plan, our students learn to select from an array of advanced offerings in diverse areas of study. These courses serve as enhancements to the students' accumulated knowledge of architecture. Individual excellence—no matter what the chosen focus for each student—is the end to which we are firmly committed. The intent of our pedagogical approach is to facilitate a much broader range of options for tomorrow's architects who are able to immediately utilize highly developed specialty interests once they become practitioners. To this end, the new Stuckeman School building, the supportive nature of the faculty, and the diversity of ideas presented in the program have created an environment conducive to productive and spirited exchange of ideas within the entire School of Architecture and Landscape Architecture.

As committed as we are to preparing our students for professional practice, we also believe that it is even more important for us to provide them with what only a university can offer: a sense of intellectual presence and responsibility in a world where their general intelligence and humanity is more valuable than their vocational expertise. As such, the Architecture Department at Penn State has always been a leader in advocating the contextuality of studio education and the centrality of art in life.

### **I.1.2 Learning Culture and Social Equity**

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 Culture**

The Department of Architecture in the H. Campbell and Eleanor R. Stuckeman School of Architecture and Landscape Architecture developed its [Studio Culture Policy](#) in fall 2004. Discussions with students regarding input to the policy were initiated through student representatives in 2006/07. Student input was formalized with proposed revisions incorporated in the policy document over the summer of 2007. The studio coordinators' committee and the student representatives review the policy periodically. The policy was recently revised in April 2013 with input from 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. To benefit from the Stuckeman Building environment, students must commit to working in the studio space. The studio setting places students in a context where they are able to learn from each other and from the faculty.

The policy strongly encourages students to respect the ideas of their classmates without regard to their race, color, religion, gender, or sexual orientation. 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 have the responsibility to be punctual, prepared to work, and respect the commitment of time and energy that faculty have made to prepare and present course material. Architectural education employs a variety of means to review the ideas and work of students and these methods of assessment are an essential element of studio culture.

We expect everyone in the Department of Architecture to promote and enforce a safe, efficient place of work. Harassment has no place in our community. Harassment is not limited to overt actions, but also applies to situations that interfere with the performance of other students, or creating an intimidating, hostile, or offensive environment. The studio culture policy encourages students to be engaged as active participants in their quest for architectural excellence and to continually reinvigorate our scholarly community of future architects to create an environment that is truly conducive to learning.

Compliance with the policy is monitored through regular meetings between the department head and the student representatives that keep the overall student body informed, surveys of student opinions and concerns, and through reports of students to faculty and the department's Faculty Academic Adviser.

## Social Equity

The following [Statement of Nondiscrimination and Harassment](#) accurately defines the University policy and is part of all Penn State publications:

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.

## 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.

## Policies for Academic Integrity

The University Faculty Senate at Penn State University defines the policies and standards of conduct for students in academic affairs. The [Academic Integrity](#) policies and procedures mandate regular communication of high standards of integrity that are enforced through College Committees to ensure fairness and consistency in processes and outcomes. These committees work with the Office of Student Conduct and the Office of the Provost of the University to develop procedures for handling and sanctioning dishonesty infractions. The College Committee carefully reviews and settles all contested cases in which academic sanctions are applied. If necessary, further disciplinary action is taken by the Office of Student Conduct.

## Diversity

The [Stuckeman School's Strategic Plan](#) for 2008-2013 explicitly emphasized the need for increased efforts to develop action plans for enhancing diversity among faculty and staff. The School's strategic plan also stressed the need for recruiting and matriculating a more diverse student body. The department has made consistent progress in this regard. The Architecture Department continues to specifically pursue an increased presence of qualified women and minorities on the faculty. Since the last team visit, four women and two minorities have joined the faculty in various positions. Two female associate professors were granted tenure during the 2011-12 academic year, while one was promoted to the rank of full Professor. The department recognizes that more needs to be done in this context and is committed to building a community that exemplifies the ideals of diversity, healthy faculty-staff-student interaction, active learning, and innovation that fosters a climate of respect for the free exchange of knowledge and ideas. The College of Arts and Architecture is also committed to maintaining a hospitable and inclusive climate for all.

Within the existing Bachelor of Architecture program, the Department's Fall 2012 enrollment in the undergraduate program included 27 minority students, which represents 12.05 % of the 224 total students. The three-year average reflects an 11.25% minority student enrollment. The number of women

enrolled in the program in Fall 2012 was 80, or 35.71% of the total undergraduate student enrollment. The three-year average for women in the program is 42% of the total architecture student population.

Faculty, staff and students are consistently involved in the development and implementation of department policies and procedures, including curriculum and program development. Faculty, students and staff participate in a variety of standing committees that cover most departmental issues. In addition, each class elects a student representative to meet monthly with the department head to discuss issues and grievances, as well as to plan for new program opportunities. The student representatives, as well as an officer of the AIAS and a graduate student representative, keep the overall student body informed and engaged. This forum gives students direct and regular access to administration without filtering through the faculty.

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 serves as a catalyst and advocate for Penn State's diversity initiatives. Educational Equity's vision is an inclusive and welcoming Penn State community 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 a priority of the institution. With this [2010–15 Framework](#), Penn State begins the next phase of achieving its diversity potential.

### **I.1.3 Responses to the Five Perspectives**

The Pennsylvania State University is one of the foremost educational and research institutions in the United States and architecture students are part of its rich and diverse academic environment. The Department benefits immensely from established educational standards and a wealth of resources available at the University Park campus. The University, in turn, benefits from the many contributions the students, staff, and faculty make to the academic offerings and the quality of the campus environment.

#### **A. Architectural Education and the Academic Community**

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 classroom instruction, printing, visual, and audio resources.

The Architecture Department continues to maintain strong ties with the Department of Architectural Engineering through collaborative programs, interdisciplinary faculty research, such as the IEL, 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. 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. Respected architects and firms such as Rafael Vinoly, Robert Stern, Bohlen Cywinski Jackson, 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.

The Department encourages faculty and student participation in national and international conferences to present their creative work and productive scholarship. Many faculty members have presented at ACSA regional and national conferences in the last few years. Some faculty and students have been recognized by ACSA for their teaching and creative achievement (see section “1.3.3 Faculty Credentials” for details) in the past.

Faculty members consistently engage in high-level research in the Department and many have been successful in securing prestigious external grants as Principal Investigators. Professor Darla Lindberg completed a \$450,000 National Science Foundation (NSF) grant with three Co-Principal Investigators in the capacity of a Senior Researcher in 2008. As part of this grant, she was the Co-Founder of the Huck Institute of Life Sciences with Professor Peter Hudson. In 2009, she received as Principal Investigator a major grant of \$396,857 from the National Institute of Health (NIH), which was completed in 2012. Professor Lindberg’s grants have highlighted critical issues of health and place, contributing to a greater recognition of what architecture can potentially contribute to the sciences. In 2010, Peter Aeschbacher, associate professor of landscape architecture and architecture, and Marcus Shaffer, assistant professor of architecture secured a \$251,670 grant from the Doris Duke Charitable Foundation for a two-year action-research project that employed design as means of reinvigorating public space. Students and faculty from architecture, landscape architecture, dance, and engineering collaborated and presented original performances in public spaces on campus. In 2009, Christine Gorby was awarded a Graham Foundation grant for her proposal titled Deviant Decoration: The Architectural Interior, which comprised a series of three public symposiums and related exhibitions. In 2008, Professor Haider, with Peter Aeschbacher and Mallika Bose as Co-PIs, received a major grant of \$235,00 from the Pottstown Area Health and Wellness Foundation for an interdisciplinary study that focused on encouraging active living through design and planning strategies for the Parks and Recreation System in the region. Some faculty members have also secured significant internal grants. Professors Muramoto and Willis are involved in the Penn State-led Energy Efficient Buildings (EEB) grant from the Department Of Energy that is funding the development of the Energy Innovation Hub at the Philadelphia Navy Yard.

## **B. Architectural Education and the Students**

Due to the high demand for admittance into the Department of Architecture, we are one of the most selective units in the university and as a result are lucky 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. In fact, the faculty regularly invites 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 active 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, the student designs are always exhibited, and there are generally public presentations to present the winners and discuss the projects.

The continuity of our Study Abroad Program in Rome also creates a shared experience that bonds our students and alumni together. There are numerous required field trips to locations such as Villa Adriana, Florence, Venice, Verona, Vicenza, Pompeii and Paestum that are an integral part of the curriculum. As a part of their semester in Rome, most of our students take the opportunity to travel across Europe and thus maintain the *Grand Tour* tradition. Being totally extra-curricular, this commitment of time and money to visit the great buildings and cities of Europe reflects our student’s dedication to shaping and enhancing their own education and growth as designers.

Our various *design/build* and *service-learning* projects reflect a commitment to creating opportunities for students who assume active leadership roles in their education. The Campus Construction Project is in its seventeenth year and has become an important springboard experience for the entire curriculum. Active-learning projects, such as Solar Decathlon in 2009, uniquely contribute to the “distinctiveness, self-worth and dignity” of our students.

The students also engage in more light-hearted traditions that contribute to the social environment of the department such as the Annual Architectural Costume Parade, and Pumpkin Carving Competition. These serve as social celebrations in the manner of traditional Beaux-Arts Balls. Students are vital participants in the planning and administration of all of these events and activities.

The Department prides itself in its close relationship between faculty and students and thus student advising, formally and informally, is a high priority. In 2011 Kirk Dimond assumed the position of Advising Coordinator for the School. Incoming architectural students are greeted in a summer orientation session conducted by Mr. Dimond in collaboration with College personnel who counsel them on registration, the profession, performance expectations and their upcoming life as a student. Initially Mr. Dimond will serve as their advisor and organize advising sessions for students and various other programs aimed at promoting academic success. As the students become more familiar with faculty, faculty members begin advising students on career choices, coursework selection, and provide general guidance. We also acknowledge that experienced students are often more effective advisors to our younger students than faculty. Formal student-to-student advising is the goal of our Mentor Program which has taken a number of shapes over the years as we search to find a structure that effectively serves all involved; however, informally, the physical adjacency of our studios creates multiple opportunities for inter-studio mentoring.

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 is lively with an influx of new funding from the Stuckeman Endowment. The Architecture lecture series is coordinated with the Department of Landscape Architecture’s lecture series, and 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.

Five 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*, the National Organization of Minority Architecture Students (NOMAS) and Students for Environmentally Enlightened Design (SEED). These groups are instrumental in helping and, at times, leading major

events, activities, and programs. Additionally, the [PSUDIGITALBEEHIVE](#) workshops are student-organized events to teach peers in the Stuckeman School state-of-the-art computer programs.

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 usually 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 percent with the introduction of the new mentoring program comprising 120 students. 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. This year 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.

### **C. Architectural Education and the Regulatory Environment**

The accredited architecture program at Penn State is structured to prepare graduates with the theoretical background and practical skills necessary to become licensed professionals. Courses in the 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 the ethical responsibilities of a professional architect.

Incoming freshman students are given an architecture school information packet, which includes a copy of the ACSA Guide to Architecture Schools that provides an overview of architectural education, degree options, and the path to licensure including 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 [IDP Record](#) is posted on the Architecture Department website which is available to prospective and current students.

Early each Fall Semester an IDP/ARE information session is held for all architecture students. Presented by either a representative of NCARB or the Pennsylvania IDP State Coordinator in conjunction with the School IDP Coordinator, this ninety-minute session includes Q & A. Sean Sheffler, the current State of Pennsylvania IDP Coordinator participated in the Fall 2012 presentation. At this session information related to NCARB IDP / ARE and State specific licensure information was provided. Student resources such as the State and School IDP Coordinators are also identified to the students. The School IDP Coordinator 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 IDP / ARE information. All NCARB Date of Eligibility Forms received from students are signed, recorded and forwarded to NCARB by the Department office.

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

The role of the AIA, and all architecture collateral organizations, is discussed. Additionally a recent architecture program graduate working in an architectural office makes a class presentation on the IDP, 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. Kristin Barry currently fills this role.

Professor Robert Holland, AIA NCARB, served as the Department IDP Coordinator from Fall Semester 2008 through Spring Semester 2013. Professor Nathaniel Belcher, AIA NCARB, became the School IDP Coordinator in Summer 2013. The former Penn State School IDP Coordinator has attended the NCARB IDP Conference every year since 2008 and the new School IDP Coordinator will continue to do so.

Many architecture students participate in summer employment and internships. The Department sponsors a spring [Career Day](#) for architecture students. The 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 the current students. Topics covered include IDP, 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 given by attending firms and two "Poster Sessions" where students have an opportunity to interact with the practitioners. Additionally there is a 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. Fourteen offices conducted student interviews at the Spring 2013 Career Day, including five architecture firms, five landscape architecture firms, and four multidisciplinary offices.

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. Architecture students have the opportunity to participate in a fall [Career Fair](#) that attracts over 70 A/E and E/A firms, which is organized by the Department of Architectural Engineering. 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. Architectural Education and the Profession**

The program's emphasis on the design studio sequence 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 campus construction 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, 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.

Ethical issues and the professional conduct of the architect are covered in the Professional Practice course and the Theory sequence. 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, liability, ethical conduct, and code enforcement.

The Bowers Program provides seed money for interdisciplinary teaching, research, or creative projects. Through Bower-funded initiatives, Architecture students gain real opportunities 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.

The Department Head often attends meetings of the officers of the AIA and works closely with the Middle PA Chapter. 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 comprising architectural practitioners and AIA members, as well as educators from other architecture schools. To facilitate professional dialog, this year, architecture alumni were invited to join a reception for Penn State alumni at the American Institute of Architects' national convention in Denver. The reception was collaboration between 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 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. 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.

#### **E. Architectural Education and the Public Good**

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. The Hamer Center organizes many of these projects in which the Department participates, often along with faculty and students from Architectural Engineering and Landscape Architecture. 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.

The Architecture Department is fully committed to environmental sustainability. The Department (in conjunction with the U.S. Green Building Council, Architectural Engineering, Landscape Architecture, et al.) 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, and environmental concern is incorporated in the curriculum.

To facilitate and broaden the Department's efforts in sustainable architecture, several faculty members in the Stuckeman School established the Committee for Environmentally Conscious Architecture (CECA) in 2008. Its primary objective is to define and continually enhance sustainable content in the undergraduate curricula. CECA is focused on the study of sustainable pedagogy models in various institutions and acts as a point of contact with other groups and centers inside and outside the University. Similarly, Students for Environmentally Enlightened Design (SEED) is a multidisciplinary student organization recognized by the Penn State Office of Student Affairs. Supported by the Department and CECA faculty, SEED promotes student-supported initiatives and work in environmentally conscious design. Completed in 2012, SEED's major project has been to design a shipping container library for refugee camps in Africa. SEED is working with the African Book Project, which has sent hundreds of thousands of books to Africa throughout the last decade.

At University Park, the large number of minority and foreign students exposes 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 requires a foreign study experience of all its undergraduate students with a semester in Rome, which exposes Penn State students to students from other American universities, students from the University of Rome, and international students from many other countries. Organized field trips are an integral part of the Rome study program and at least three extended field trips to a variety of sites or cities are included each semester.

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.

The Department's approach across the curriculum to assigning projects at local, regional and national locations contributes to a sense of civic responsiveness where students can understand how architects can potentially contribute to improving the environment and quality of life in many locations. For example, a third year project for the design of a recreation center in the spring semester of 2013 underscored community and civic engagement, and students held community meetings where they could connect with the residents of Bloomfield, Pittsburgh. Their questions addressed community dynamics, how the recreation center will be used, and social and behavioral aspects of the users, among many other topics.

The Hamer Center for Community Design Assistance, a center within the School of Architecture and Landscape Architecture, has involved students, Center staff, and faculty in a variety of projects with direct links to local and surrounding community associations and businesses. For example in spring 2011, facilitated by the Hamer Center Professor Alexandra Staub's fourth-year design (Arch 432) students developed ideas for Lewistown Pennsylvania, a proud town once dominated by a viscose plant that closed after major flooding in 1972. The students were asked to develop scenarios for reusing the plant's industrial facilities with programs that would help strengthen Lewistown's economic base and ultimately, its future identity. This type of hands-on activity and interaction with the community in an urban setting not only raises issues of professional responsibility, but also provides an actual setting for students to practice professional conduct.

Similarly, one of the notable elements of the Design Thesis 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 include the following from last year: intergenerational housing design strategies, architecture as an agent of activism in New Orleans, contributing to revitalizing small towns via architectural interventions, and understanding implications for an architectural intervention at the US-Mexico Border.

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. Some successful camp participants become students in the Architecture Department at Penn State.

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 hand-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.1.4 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
- 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 next Self-Assessment section. This section focuses on long-term planning processes at Penn State and the Department's participation is based on its mission and culture, the mission and culture of the institution, and the five perspectives.

Higher education across the nation is facing many challenges and Penn State is no exception. Nearly every aspect of higher education is being impacted as we face global, national, and state economic recession. 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 forward at both challenges and opportunities, Penn State has highlighted serious and difficult questions in its [current strategic plan](#) that have been translated into seven goals:

1. Enhance Student Success
2. Advance Academic and Research Excellence
3. Realize Penn State's Potential as a Global University
4. Maintain Access, Affordability and Enhance Diversity
5. Serve the People of the Commonwealth and Beyond
6. Use Technology to Expand Access and Opportunities
7. Control Costs and Generate Additional Efficiencies

The central administration mandates that every budget unit create and submit a strategic plan. The University has a five-year strategic planning cycle with 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:

- Strengthen our significance and reputation in the arts
- Prepare students to thrive in a global and diverse environment
- Enrich the lives of the University and the region by celebrating and disseminating the arts through our commitment to outreach
- Develop a ten-year college master plan for facilities and technology

The [H. Campbell & Eleanor R. Stuckeman School of Architecture and Landscape Architecture 2008-2013](#) 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 some new ones that respond to the nature and state of architectural education today:

- Shape the Department to acknowledge the complexities of contemporary architecture, the University, and society
- Strengthen the Department through faculty pursuits in research and creative achievements
- Expand resources for the Department of Architecture
- Increase the prominence of the Department within the field of architectural education
- Increase educational opportunities that expose students to diverse cultural conditions
- Educate our students to become environmentally conscious designers, architects and citizens
- Place a greater emphasis on graduate education

### **Institutional Long-Range Planning and The Five Perspectives**

The long-range planning of the Department of Architecture is consistent with the University, College and Stuckeman 2009-14 Strategic Plans. The goals and strategies identified in these plans and their relationship to the five perspectives are briefly discussed below:

**A. Architectural Education and the Academic Community:** Of the seven goals articulated in Penn State's Strategic Plan, one relates to the spirit of this perspective: "Advance Academic and Research Excellence". Faculty and students have used 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 scholarship and in design-related role of technology. The Department in its Strategic Plan has stressed the need to acknowledge the complexities of contemporary architecture, the University, and Society, and to enhance the quality of the program through faculty pursuits in research and creative achievements. Strategies toward reprioritizing 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, increasing support and incentives for faculty who seek external research funding. The department plan also called for greater emphasis on graduate education, which is currently being implemented. This fall the Architecture Program will begin a professional graduate (M. Arch) program. This new graduate program will not only strengthen our accredited undergraduate program, but will also cultivate new synergies in educational and research endeavors within the University. It 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 for pre-professional and professional education at Penn State.

**B. Architectural Education and the Students:** This perspective is reflected in the University's goals to "Enhance Student Success" and "Realize Penn State's Potential as a Global University." Acquiring

leadership skills in a changing context requires critical thinking skills, and 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 world 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, 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. In this context, two student organized national conferences in 2013, “The Nature of Spatial Practices” by graduate students and the Quad Conference “From Bytes to Built,” by the AIAS are extremely encouraging. Providing study abroad opportunities has long been a central part of our educational mission and all fourth year students in the architecture program continue to spend one full semester of study at the Pantheon Institute in Rome.

**C. Architectural Education and the Regulatory Environment:** The accredited architecture program at Penn State is structured to prepare students with the theoretical background, professional, and practical skills necessary to become licensed architects in an increasingly 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 on this perspective. The University affords all necessary support to the Department in complying with IDP 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.

**D. Architectural Education and the Profession:** Two goals of the University Strategic Plan support this crucial perspective: “Realize Penn State’s Potential as a Global University”, and “Serve the People of the Commonwealth and Beyond.” This is inherently compatible with the AIA perspective that “the practice of architecture is global in its reach. The College plan’s emphasis on preparing students to thrive in a global and diverse environment stems from the desire to educate future professionals who would be able to practice in a global economy and diverse communities. 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.

**E. Architectural Education and the Public Good:** The University’s two goals, namely “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, Landscape Architecture, and beyond the School and College. The intent is to strengthen our significance and reputation in design-related scholarship and in 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.1.5 Self Assessment Procedures**

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, all to be aligned in Fall 2013.

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 solicits input from past graduates of the program through an alumni survey. More than half of all graduates from the previous three to five years are randomly chosen to participate in a telephone survey. The questions focus on overall quality of advising in 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 for the program. The comment section allows alumni to provide insightful suggestions and critiques about the architecture program at Penn State that can facilitate necessary adjustments in relevant areas. The survey helps the Department target areas that need attention,

and enhance those that are strong. The alumni survey questionnaire, responses, and a summary of the results are included in Supplemental Information section IV.5.

- **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. For instance, in the curriculum section, the faculty is always interested in the students' assessment of the effectiveness of our studio sequence and range of architecture elective courses. Similarly, in the diversity category, we believe it is vital to find out whether we have been successful in maintaining a welcoming and inclusive climate for all students. While the survey is not mandatory, the participation rate is more than 85%. The responses are a useful tool for the Department to address students' issues and their perceptions of the architecture program. As such, these responses become an integral part of departmental discussions and policy making. The student questionnaire, responses, and a summary of the results are included in Supplemental Information Section IV.5.
- **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:
  - James Radock, Immediate past President ('88 B.Arch.)
  - Catherine Bartels ('10 B.Arch.)
  - Steve Cromity Jr. President ('90, B. Arch.)
  - Frank Dittenhafter, II, ('78, B.S.)
  - Silvi Lawrence ('82, B. Arch.)
  - Christopher Marcinkoski ('00, B. Arch.)
  - Peter Margittai, ('93, B. Arch.)
  - Patrick Mawhinney ('11, B.Arch.)
  - Katherine Melliush ('02, B.Arch.)
  - Sheri Tickner ('93 B.Arch.)
  - Wesley Wei ('76, B. Arch.)

#### EX-OFFICIO BOARD MEMBERS

- Department of Architecture Head | Mehrdad Hadighi
- Faculty Representative | Jodi La Coe ('94 B.Arch.)
- 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 last two years have been productive and meetings 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 the 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:** Tenured faculty and tenure-track faculty not undergoing a periodic Promotion and Tenure Review are evaluated by the Department Head on an annual basis utilizing a Department Annual Report.



- **Curriculum Committee:** The faculty members of the Curriculum Committee are appointed annually by the Department Head. The Advising Coordinator is an ex officio 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. 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.
- **Advising Coordinator:** In addition to coordinating the Department advising and serving as the primary academic advisor, this position is charged with tracking student progress, collecting statistics on incoming student characteristics (national test scores, GPA, minority status, how the student entered the program, etc.), identifying “problem areas” in our admission requirements and processes, course sequence, or our curriculum and then proposing solutions to these “problems.”
- **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 Department Head on other issues related to the design studio sequence. The responsibilities of the Design Studio Coordinators are as follows:
  1. Meet regularly with the other studio faculty in their year level 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 so as to achieve the curriculum objectives defined for that studio year level.
  2. 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.
  3. Coordinate the work and schedule of the studios with that of parallel courses, endeavoring not only to avoid conflicts in due dates, but also to maximize the potential benefits between courses; this requires coordinating the use of limited facilities (such as the woodshop, laser cutter, plotters and other “output devices”) to avoid conflicts with other studios and courses.
  4. Coordinate the work of the faculty assigned to the studio year level; to coordinate and lead discussion among the year level studio faculty regarding common grading standards, NAAB Student Performance Criteria and measures of student progress.
  5. 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.
  6. 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 Department Head for changes and improvements. A detailed list of facility improvements is prepared each spring, and most improvements are accomplished over the summer months, when there are few students and faculty in the building.
- **Computing/Technology Committee:** The purpose of this committee is to make recommendations to the Department Head regarding strategic directions in technology utilization 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.
- **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 updated 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.

### Results of Faculty, Students, and Graduates' Assessments of Curriculum

In the context of "Architectural Education and the Academic Community," the Stuckeman School Strategic Plan emphasizes the importance of scholarship to strengthen our significance and reputation in design-related scholarship and technology. The Department in its Strategic Plan has stressed the need to acknowledge the complexities of contemporary architectural education and practice, the university, and society in order to enhance the quality of the program through faculty pursuits in research and creative achievements. To this end, the criteria for faculty annual evaluation have been revised to align it more closely with the University expectations.

The Stuckeman School Strategic plan gives immense importance to "Architectural Education and the Students," and envisages world engagement that more effectively integrates our students, our service, and our scholarship within the global community. After faculty discussion and planning, this fall the Architecture Department will begin a professional graduate (M.Arch) program. This program will strengthen the accredited undergraduate program and help cultivate new synergies in educational and research endeavors. Similarly, faculty discussions specifically on the enhancement of the accredited B.Arch program take into account student input via the student survey mentioned earlier in this section.

Recent survey results showed that most students believed studio sequencing was effective or highly effective in preparing them for subsequent studio and workloads. The most notable outlier of this trend was the second years that expressed concern about the large jump in difficulty, expectations, and type of design that was encountered in their second year studios as compared to their first year studios. Upper year students, however, indicated that as they went through the program, they began to understand the value of the atypical design projects in first year. One third-year student wrote, "In first and second year it was sometimes difficult to understand why we were doing certain projects in certain orders. Why was I building a machine in first year and suddenly expected to design a building in second year? Now that third year is ending it's all beginning to click."

In response to the question concerning variety of elective courses, most students agreed that the variety and subjects were adequate and interesting, but that the required architecture curriculum left little time for them to fully appreciate the material presented. Students also indicated that the timing of the advertising of these courses should be shifted to before course scheduling occurs for the next semester; often students' schedules are already full by the time they learn of the interesting electives available to them. Survey results for the academic and career advising show an interesting trend. In general, upper years were less satisfied in both areas than lower years. The students found the Professional Practice course

and its professor, Bob Holland, to be more helpful in job preparation than the career advisor. Most students, regardless of year level, said that they would find the advisors more useful if there were occasional mandatory meetings or some sort of outreach from the advisors to the students.

Most students expressed great satisfaction in regards to the facilities at the Stuckeman Family Building. Some wrote that the facilities were one of the main reasons they chose Penn State. The most positive comments concerned the building's openness and conduciveness to collaboration between studios, and the presence of technology throughout the building. Most students feel there is not enough lounge space or one specific lounge space is not designated. Students said they would appreciate a café for quick breaks and social interactions between students and faculty. Lectures are usually given in the forums, which the students describe as "extremely uncomfortable" and "noisy." An intervention in these spaces that would improve comfort and acoustics for lectures was the most common suggestion. When asked about the communication between students and faculty, most students believed the system in place was a good start, but needed improvement. For example, many students wrote their student representative was capable, approachable, and carried out the responsibilities, but did not relay information from meetings with the Department Head. They suggested communication in general be more transparent.

The Stuckeman School and Department plans offer specific strategies and information on aspects of "Architectural Education and the Regulatory Environment." The Department recognizes that the previous VTR, APR, and Annual Reports are significant opportunities for self-assessment that should involve faculty, students, and staff in the review and preparation of these documents. Faculty have, after debate and discussion, implemented the suggestion of the last VTR to move Comprehensive Design to fourth year to allow more freedom of exploration and design research in Fifth-Year Design Thesis. The University offers necessary support to the Department in complying with IDP and NCARB requirements. Alumni input for this perspective is critical and is integrated in our long-range planning.

The alumni survey conducted prior to writing this APR, which included graduates from the previous five years, shows that 12.5% of the respondents are pursuing an advanced degree and 75% are working in an architectural firm, 12.5 % are licensed, 69% are actively working on an IDP, while 6% are not engaged in architectural practice or education. On a scale of 1-5, where 1 is poor and 5 is excellent, respondents were satisfied or very satisfied with career preparation (3.76), but a little less with the quality of advising (3.03). One respondent remarks: "I completed my IDP within three years. I took and passed all 7 exams within that time as well. My education at the Penn State Department of Architecture prepared me well for these exams. I have also found myself well equipped for the challenges that face me every day at work." Comment about advising includes "...there are moments in the professional field where I feel I was not prepared coming out of school, however I have had coworkers who said Penn State has prepared students better than other accredited schools."

The "Architectural Education and the Profession" perspective is supported by the College plan's emphasis on preparing students to thrive in a global and diverse environment stems from the desire to educate future professionals who would be able to practice in a global economy and diverse communities. 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 useful in incorporating the professional community into the long-range planning process. This has translated into the introduction of courses on Japanese and South Asian Architecture, as well the inclusion of more non-western and global content in existing courses.

"There is considerable emphasis on increasing the gender, ethnic, racial, economic and cultural diversity of the school in response to the Architectural Education and the Public Good" perspective. The Hamer Center for Community Design Assistance has been an effective means of engaging architecture students in service learning opportunities. Faculty discussions continue to stress the need to increase educational opportunities that expose students to diverse cultural conditions through the Hamer Center. This year the Hamer Center's Director position will be filled after a long time through an internal faculty search.

Promoting sustainability and stewardship of the built environment is critical for our students to help them become environmentally conscious designers, architects, and citizens.

### **Institutional Requirements: College and University Level Self-Assessment**

- **Strategic Planning:** Penn State requires all of its academic units to participate in strategic planning. Through the College Leadership Council, the Architecture Department Head and Architecture Faculty Council representative have the opportunity to participate in crafting the [College of Arts and Architecture Strategic Plan](#).
- **Framework to Foster Diversity:** the University website refers to the *Framework* as our “roadmap for achieving our diversity goals.” The *Framework* is a parallel strategic plan that addresses diversity issues outside the University, College, and academic unit level strategic plans. “Although diversity planning will continue to occur in a parallel planning process, units should take advantage of the opportunity to incorporate related elements of their goals and commitments regarding diversity into the larger context of the unit’s future vision and strategies.”
- **Peer Review of Faculty:** At Penn State the evaluation of faculty performance takes place at the Department, College, and University levels. One aspect of this evaluation is peer review. Promotion and Tenure reviews and Post Tenure reviews are conducted both by committees of faculty peers and by administrators. The Department and College Promotion and Tenure Committees (only tenured faculty peers may vote for tenure and only faculty at higher rank than the candidate can vote for promotion) review all tenure eligible faculty members during their second, fourth, and sixth year of service. The University P&T Committee only participates in the final tenure reviews and in promotion reviews that have adequate support from the Department and College levels. Evaluations of teaching effectiveness typically involve peer review by other faculty in the Department. The reviews are based on first-hand experience of the candidate’s teaching, and involve classroom/studio visits and reviews of teaching materials prepared by the candidate. Expert peers outside of Penn State primarily conduct peer evaluation of research and creative work for the final or sixth-year review.
- **Reviews of Administrative Performance:** At Penn State, Deans and Department Heads undergo an in-depth performance review every five years. The Dean reviews the Department Head’s performance on an annual basis.
- **Student Ratings of Teaching Effectiveness (SRTEs):** Students at Penn State evaluate each course on two primary standardized questions: Overall Quality of Course, and Overall Quality of Instruction. This data takes the form of numerical scores on a scale of one to seven. Departments may choose from a menu of more specific questions, which students also evaluate on a one to seven numerical scale. The SRTE evaluations are most effective in providing quantitative data to measure teaching quality. Students have the opportunity to provide written comments for the SRTE assessment.

### **Self-Assessment and Long-Range Planning**

Self-assessment is a key element in any long-range planning endeavor. The Architecture Department has in the past few years conducted an analysis of the program’s strengths and weaknesses via faculty and student participation. This analysis is guiding, and will continue to guide, our Strategic Planning process. Self-assessment also informs curricular change and curriculum development, as well as the learning culture of a program. The groundwork for long-term planning has been established and the Curriculum Committee and Design Coordinators Committee will continue to work toward implementation.

The current economic uncertainties pose an enormous challenge to many institutions of higher learning including Penn State. In this context, program self-assessment and long-range planning take on added significance for professional architecture programs. Reduced funding and external pressures to cut back on essential elements of programs is a real threat and we need to be strategic about the way we utilize our existing resources.

The Architecture Department within the Stuckeman School is in a good position to weather this storm due to a large endowment of \$20 million by a friend and benefactor of the Department, Cal Stuckeman. The Stuckeman Endowment has promoted cooperation and joint efforts between the departments under a newly named Stuckeman School of Architecture and Landscape Architecture. Recently, Graphic Design merged with the Stuckeman School as a separate program. In addition, with the Stuckeman Endowment fully vested, we are now able to hire 7 additional faculty members each year, through the Stuckeman Endowed Professorships (shared with the Department of Landscape Architecture). Some of these faculty members will be teaching required courses, and others will bring an enhanced educational experience through electives. The endowment also provides resources for enhancement in many areas through faculty grants.



**Part One (I): Section 2 - Resources**





This section demonstrates the human, physical, financial, and information resources available to the Architecture Department that are necessary to support student learning in the Bachelor of Architecture (B.Arch) degree program at Penn State.




**1.2.1 Human Resources and Human Resource Development**





The Stuckeman School is home to over 500 students, approximately 275 of whom are in the Department of Architecture. Over 25 faculty members are based in the architecture program, seven of whom are in visiting or adjunct positions. Fifteen architecture faculty members are tenured and five are full professors. (For more information, see I.3.1 Statistical Reports).

**Matrix for Architecture Faculty Credentials**

| Faculty Member   | Summary of Expertise, Recent Research, or Experience   | Courses Taught: Fall 2011 – Spring 2012   | Courses Taught: Fall 2012 – Spring 2013    |
|--|--|---|--|
| Aeschbacher, Peter<br>Associate Professor<br> | The practice and history of community design; University-Community partnerships; small parks, public space, and everyday urbanism.<br><br>Worked closely with marginal populations, including community-based projects for at-risk youth in Los Angeles; worked on community projects in South Africa. | ARCH 491: Architectural Design VII<br>ARCH 600: Thesis Research<br>LARCH 311: Neighborhood Planning and Community Design Studio | On Sabbatical                              |
| Ariosto, Tim, EIT<br>Instructor<br>           | Building envelope systems; building science.<br><br>Publication with Memari, A.M. in <i>Proceedings of the 1<sup>st</sup> Annual Residential Building Design &amp; Construction Conference</i> . 2013.   | CE 341: Design of Reinforced Concrete Structures  | AE 421: Architectural Structural Systems I |

| Faculty Member  | Summary of Expertise, Recent Research, or Experience  | Courses Taught: Fall 2011 – Spring 2012  | Courses Taught: Fall 2012 – Spring 2013  |
|---|---|--|--|
| <p>Aviles, Reggie<br/>Instructor</p>                         | <p>The impact of digital media on architectural design and presentation; the promotion of digital technologies in assisting professional practice and education.</p> <p>Associate, NBBJ, NY 1999-2006</p>   | <p>ARCH 122 Visual Communications II<br/>         ARCH 130a Basic Design and Research I<br/>         ARCH 231 Architectural Design I<br/>         ARCH 232 Architectural Design II</p>   | <p>ARCH 122 Visual Communications II<br/>         ARCH 130a Basic Design and Research I<br/>         ARCH 231 Architectural Design I<br/>         ARCH 332 Architectural Design IV</p>   |
| <p>Belcher, Nathaniel Quincy<br/>Professor</p>               | <p>Brazilian architecture and modernism; avant-garde practices in diverse cultures; African American architecture, urbanism, artifacts and culture.</p> <p>Dresser Trunk Project, Traveling Exhibition 2007-08.</p> <p>Licensed Architect: PA, FL, LA, OH</p>   | <p>School Director</p>   | <p>School Director</p>   |
| <p>Boothby, Thomas E., P.E., PhD. R.A.<br/>Professor</p>   | <p>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.</p> <p>Licensed Architect: PA, WA<br/>         Professional Engineer: PA, CA, NM, MD, WA, NJ</p> | <p>AE 422 Architectural Structural Systems II<br/>         AE 308 Fundamentals of Structural Analysis<br/>         AE 401 Steel and Wood Design<br/>         AE 497A Ancient and Medieval Structural Design<br/>         AE 597B Historical Methods of Structural Design</p> | <p>AE 422 Architectural Structural Systems II<br/>         AE 308 Fundamentals of Structural Analysis<br/>         AE 401 Steel and Wood Design<br/>         AE 497A Ancient and Medieval Structural Design<br/>         AE 597B Historical Methods of Structural Design</p> |
| <p>Cardoso Llach, Daniel, PhD<br/>Assistant Professor</p>  | <p>Social and political aspects of technology in design; politics of representation, participation, and authorship in BIM and CAD discourses.</p> <p>Project Consultant and Researcher, Gehry Technologies, 2010-2011</p> <p>Licensed Architect: Columbia</p>   | <p>Hired in Fall 2012</p>  | <p>ARCH 232 Architectural Design II<br/>         ARCH 497C Introduction to Programming for Visual and Spatial Design<br/>         ARCH 597A Theory Seminar in Design Computing</p>   |





| Faculty Member  | Summary of Expertise, Recent Research, or Experience  | Courses Taught: Fall 2011 – Spring 2012  | Courses Taught: Fall 2012 – Spring 2013  |
|---|---|--|--|
| <p>Cooper, James G., PhD<br/>           Associate Professor</p>                                | <p>Michelangelo and his architecture, drawing and precedent; architectural and urban design of fin-de-ciecle Vienna; and the works of Mies van der Rohe</p> <p>Several articles published in Architectural History journals</p>           | <p>ARCH 121 Visual Communications<br/>           ARCH 231 Architectural Design I<br/>           ARCH 232 Architectural Design II<br/>           ARCH 497E Drawing on Precedent</p> | <p>ARCH 121 Visual Communications<br/>           ARCH 231 Architectural Design I<br/>           ARCH 232 Architectural Design II<br/>           ARCH 497E Drawing on Precedent</p> |
| <p>Costanzo, Denise R., PhD<br/>           Assistant Professor</p>                            | <p>History of architecture, architectural practice, education, and discourse since 1900.</p> <p>Several publications in various architectural journals and books.</p>   | <p>ARCH 100 Architecture and Ideas<br/>           ARCH 210 Introduction to Architecture and Planning Theories</p>  | <p>ARCH 100 Architecture and Ideas<br/>           ARCH 210 Introduction to Architecture and Planning Theories<br/>           ARCH 311W Architecture and Planning Theories</p>      |
| <p>Gastil, Raymond, LEED AP ND, Stuckeman<br/>           Professor of Design Innovation</p>  | <p>Multidisciplinary Design, Urban Design and City/Regional Planning, Innovative Engagement, Public Space and Revitalization.</p> <p>Manhattan Director, Department of City Planning</p> <p>Licenses: AICP</p>                            | <p>ARCH 431 Architectural Design V<br/>           ARCH 432 Architectural Design VI<br/>           ARCH 497 Seminar - Campus Urbanism</p>   | <p>ARCH 491 Architectural Design VII–Thesis<br/>           ARCH 497 Seminar - Campus Urbanism</p>  |
| <p>Groenendaal, Denson<br/>           Instructor</p>   | <p>Solar design &amp; engineering for sustainable building design; sustainable communities; renewable energy systems for economic, social, and cultural development.</p> <p>Groenendaal &amp; Walmer, Planning &amp; Architecture, PA</p> | <p>ARCH 130A Fall: Basic Design &amp; Research Studio<br/>           ARCH 130A Spring: Basic Design &amp; Research Studio</p>  | <p>ARCH 130A Fall: Basic Design &amp; Research Studio<br/>           ARCH 130A Spring: Basic Design &amp; Research Studio</p>  |





| Faculty Member  | Summary of Expertise, Recent Research, or Experience   | Courses Taught:<br>Fall 2011 – Spring 2012  | Courses Taught:<br>Fall 2012 – Spring 2013  |
|---|--|---|---|
| <p>Gorby, Christine<br/>Associate Professor</p>                      | <p>Design, history, and theory in the built environment; gender studies.</p> <p>Two books to be published in 2014.</p> <p>Licensed: R.I.B.A, A.R.C.U.K</p>   | <p>ARCH 316: Human Settlements and Cities<br/>           ARCH 491: Architectural Design VII Thesis<br/>           ARCH 492: Architectural Design VIII Thesis<br/>           ARCH 497c: Interior Architecture</p>  | <p>On Sabbatical</p>  |
| <p>Hadighi, Mehrdad, RA<br/>Professor</p>                            | <p>Drawing parallels between 20<sup>th</sup> century art, theory and criticism and the constructive principles of architecture.</p> <p>Several publications in various architectural journals.</p> <p>Licensed Architect: NY</p>   | <p>Hired January 2012</p>   | <p>Department Head<br/>           ARCH 497I: WWW Drawing</p>  |
| <p>Haider, Jawaid, PhD<br/>Professor</p>                           | <p>Design for children; architectural design education; comparative theoretical perspectives in architecture.</p> <p>Several scholarly publications and research grants in areas of interest.</p> <p>Licensed Architect: Karachi</p>   | <p>ARCH 312 Critical Postcolonial And Contemporary Perspectives in South Asian Architecture<br/>           ARCH 491 Architectural Design VII – Thesis<br/>           ARCH 492 Architectural Design VIII - Thesis<br/>           ARCH 511 Theoretical Perspectives in Architecture<br/>           ARCH 591 Architectural Research<br/>           ARCH 600 Thesis</p> | <p>ARCH 491 Architectural Design VII – Thesis<br/>           ARCH 492 Architectural Design VIII - Thesis<br/>           ARCH 511 Theoretical Perspectives in Architecture<br/>           ARCH 591 Architectural Research<br/>           ARCH 600 Thesis</p> |
| <p>Henn, Rebecca L., PhD, RA, LEED AP<br/>Assistant Professor</p>  | <p>Studies industry drivers of green building.</p> <p>Principal, Celento Henn Architects + Designers;</p> <p>Published book titled “Constructing Green: The Social Structures of Sustainability” (MIT Press 2013), with Andrew J. Hoffman.</p> <p>Licensed Architect: NY, PA</p> | <p>ARCH 131 Basic Design Studio<br/>           ARCH 132 Basic Design Studio<br/>           ARCH 311w Architectural and Planning Theories</p>  | <p>ARCH 311w Architectural and Planning Theories<br/>           ARCH 331 Architectural Design Studio</p>  |





| Faculty Member  | Summary of Expertise, Recent Research, or Experience  | Courses Taught: Fall 2011 – Spring 2012   | Courses Taught: Fall 2012 – Spring 2013   |
|---|---|---|---|
| <p>Holland, Robert J., AIA<br/>           Associate Professor</p>    | <p>Integrated Practice; Entertainment Architecture; resort, hotel, retail, and cruise ship design; design/construction project management; building enclosure systems.</p> <p>Project Manager, Director, VP of Resort Development, Walt Disney Imagineering (1979-2006)</p> <p>Licensed Architect: CA, FL NCARB</p> | <p>ARCH 441 Architectural Design Analysis<br/>           ARCH 442.2/3 Integrated Collaborative BIM Studio<br/>           ARCH 451 Professional Practice<br/>           AE 481W: Architectural Engineering Capstone Project I<br/>           AE 482: Architectural Engineering Capstone Project II</p> | <p>ARCH 441 Architectural Design Analysis<br/>           ARCH 442.2/3 Integrated Collaborative BIM Studio<br/>           ARCH 451 Professional Practice<br/>           AE 481W: Architectural Engineering Capstone Project I<br/>           AE 482: Architectural Engineering Capstone Project II</p> |
| <p>Iulo, Lisa D., RA,<br/>           Professional Planner,<br/>           LEED AP<br/>           Associate Professor</p>  | <p>Building and planning for a sustainable future.</p> <p>Several publications in sustainability-themed journals; Forum presentation at American Solar Energy Society annual conference, 2013.</p> <p>Licensed Architect: NJ, NY, PA<br/>           Licensed Professional Planner: NJ</p>                           | <p>ARCH 432 Architectural Design V<br/>           ARCH 497 Integrative Energy and Environmental Design<br/>           ARCH 600: Thesis Research</p>   | <p>ARCH 431 Architectural Design IV<br/>           ARCH 432 Architectural Design V<br/>           ARCH 497 Integrative Energy and Environmental Design</p>  |
| <p>Hunt, John Dixon<br/>           E.R.Stuckeman Chair In Design</p>   | <p>"A World of Gardens."<br/>           Reaktion Books, 2012.</p>   |   | <p>LARCH 497A Topics and Texts<br/>           LARCH 423.3/510.3 Historical Ground</p>   |
| <p>Kalisperis, Loukas, PhD<br/>           Professor</p>    | <p>Integrating digital technology in design; digital design representation and fabrication techniques.</p> <p>Several publications in architectural journals in the U.S., U.K., Greece, and Spain.</p> <p>Licensed Architect: Greece</p>  | <p>ARCH 231 Architectural Design I<br/>           ARCH 232 Architectural Design II<br/>           ARCH 481 Digital Design Media<br/>           ARCH 543: Topics in Digital Design</p>   | <p>ARCH 231 Architectural Design I<br/>           ARCH 232 Architectural Design II<br/>           ARCH 481 Digital Design Media</p>   |

| Faculty Member   | Summary of Expertise, Recent Research, or Experience  | Courses Taught:<br>Fall 2011 – Spring 2012   | Courses Taught:<br>Fall 2012 – Spring 2013  |
|--|---|--|---|
| <p>Kalsbeek, James<br/>Associate Professor</p>        | <p>The mnemonic function of architecture; the architecture of Rome; reclamation, reuse, and demolition; Palliative care of buildings.</p> <p>“The Weight We Carry: The Hazardous Legacy of our Past and The Rehabilitation of Lead Contaminated Sites.” (Stuckeman Fund for Collaborative Design Research, 2012)</p> <p>Licensed Architect: OH</p>  | <p>ARCH 131s Basic Design Studio I<br/>         ARCH 132 Basic Design Studio II<br/>         ARCH 497e Building Material Reclamation &amp; Reuse<br/>         ARCH 497g Building &amp; Time</p>                                      | <p>ARCH 131s Basic Design Studio I<br/>         ARCH 132 Basic Design Studio II<br/>         ARCH 497e Building Material Reclamation &amp; Reuse<br/>         ARCH 497g Building &amp; Time</p>                       |
| <p>La Coe, Jodi<br/>Assistant Professor</p>          | <p>Sustainability; historical precedent for current design practices; embodied experience of architecture, architectural representation, and perspective theory.</p> <p>Several publications and presentations.</p>   | <p>ARCH 122: Visual Communications II<br/>         ARCH 131S: Basic Design Studio I<br/>         ARCH 132: Basic Design Studio II<br/>         ARCH 497D: Architectural Salvage and Reuse<br/>         ARCH 600: Thesis Research</p> | <p>ARCH 122: Visual Communications II<br/>         ARCH 131S: Basic Design Studio I<br/>         ARCH 132: Basic Design Studio II<br/>         ARCH 497B: Portfolio Making<br/>         ARCH 600: Thesis Research</p> |
| <p>Lindberg, Darla V. RA<br/>Professor</p>          | <p>Architectures of complexity and general systems theory applied to interdisciplinary conditions of resilient building/bio/agro ecologies; building physics and systems design related to disease spread dynamics.</p> <p><i>Examining Policy Resistance and Infectious Disease with Dynamic Network Conditions at the U.S./Mexico Border</i>, (National Institutes of Health/Fogarty International Center grant, 2009 to present).</p> <p>Licensed Architect: ND, NCARB</p> | <p>ARCH 491 Architecture Design Thesis I<br/>         ARCH 492 Architecture Design Thesis II<br/>         ARCH 542 Topics in Community Design<br/>         A&amp;A 110 Interdisciplinary Digital Media Studio</p>                    | <p>ARCH 491 Architecture Design Thesis I<br/>         ARCH 492 Architecture Design Thesis II<br/>         ARCH 542 Topics in Community Design<br/>         A&amp;A 110 Interdisciplinary Digital Media Studio</p>     |
| <p>Ling, Moses, PE, RA<br/>Associate Professor</p>  | <p>Expertise in architectural engineering, environmental control systems.</p> <p>Principal, Ling Partnership, Consulting Engineers, State College.</p>  | <p>AE 211 Introduction to Environmental Control Systems<br/>         AE 424 Environmental Control Systems</p>  | <p>AE 211 Introduction to Environmental Control Systems<br/>         AE 424 Environmental Control Systems</p>   |

| Faculty Member  | Summary of Expertise, Recent Research, or Experience   | Courses Taught: Fall 2011 – Spring 2012   | Courses Taught: Fall 2012 – Spring 2013  |
|---|--|---|--|
| <p>Muramoto, Katsuhiko<br/>Associate Professor</p>               | <p>History and theory of architectural representation; design-build architecture; history and theory of 20<sup>th</sup> century Japanese architecture.</p> <p>Co-founder of architectural design studio, Cover, LLC</p> <p>Licensed Architect: Osaka, Japan</p>  | <p>ARCH 317 Theory of Modern Japanese Architecture<br/>         ARCH 491 Architectural Design Thesis I<br/>         ARCH 492 Architectural Design Thesis II<br/>         ARCH 536 Design Inquiry<br/>         ARCH 600 Thesis Research</p>  | <p>ARCH 317 Theory of Modern Japanese Architecture<br/>         ARCH 332 Architectural Design IV<br/>         ARCH 497K Re-thinking Sustainability – Globalization, Culture and Identity<br/>         ARCH 600 Thesis Research</p>   |
| <p>Nazarian, Shadi<br/>Associate Professor</p>                   | <p>Glass Science and Technology; light emitting fibers and polymers that provide alternative readings of surfaces and spaces.</p> <p>“Introversions”: a multimedia, interactive &amp; 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)</p>   | <p>ARCH 232: Architectural Design II</p>  | <p>ARCH 231: Architectural Design I<br/>         ARCH 232: Architectural Design II<br/>         ARCH 497B: Portfolio Making<br/>         ARCH 497C/MATSE 497E</p>  |
| <p>Pihlak, Madis<br/>Associate Professor</p>                   | <p>Design computing; pedestrian friendly site and urban design; digital expression.</p> <p>Project Architect, Gensler Chicago, 1992-present.</p>   | <p>ARCH 431 Urban Design Studio<br/>         LARCH 414 Depth Studio<br/>         Arch 596 Emerging Digital Media<br/>         LARCH 596 Digital Media<br/>         ART 297A IDS Studio (3weeks)<br/>         ARCH 597 Ind Study<br/>         ART 210 Realization Studio<br/>         ART 297A Interdisciplinary Digital Studio (IDS) (3weeks)</p> | <p>LARCH 414 Depth Studio<br/>         LARCH 450 Emerging Digital Media<br/>         ARCH 596 / LARCH 497 Emerging Digital Media</p> <p>LARCH 596 Digital Media<br/>         ART 297B IDS Studio (3weeks)<br/>         LARCH 520 Graduate Studio</p> <p>ART 210 Realization Studio<br/>         ARCH 596 / LARCH 496 / LARCH 497 Emerging Digital Media<br/>         LARCH 597 Digital Media<br/>         ART 297B IDS Studio (3weeks)</p> |
| <p>Parfitt, Kevin M., P.E., F.AEI<br/>Associate Professor</p>  | <p>Building performance and failures; forensic techniques; structural engineering; computer aided design; automated quality control; professional practice.</p> <p>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).</p> <p>Professional Engineer: PA, NY, NJ, MD, VA, OH</p> | <p>AE 210 Architectural Structures I</p>  | <p>AE 210 Architectural Structures I</p>   |

| Faculty Member  | Summary of Expertise, Recent Research, or Experience  | Courses Taught: Fall 2011 – Spring 2012  | Courses Taught: Fall 2012 – Spring 2013  |
|---|---|--|--|
| <p>Poerschke, Ute, PhD,<br/>           LEED AP<br/>           Associate Professor</p>  | <p>Architectural design as a process of integration; theory of functionalism; relationship of architecture and technology; energy simulation as part of the design process.</p> <p>Book to be published 2014: <i>“Functions and Forms. On Architectural Theory of Modernism”</i></p> <p>Licensed Architect, Registered Urban Planner: Bavarian Chamber of Architects</p>                  | <p>ARCH 331 Studio (coordinator)<br/>           ARCH 332 Studio (coordinator)<br/>           ARCH 480 Technical Systems Integration<br/>           ARCH 497C: Environmentally Conscious Design<br/>           ARCH 600: Thesis Research</p>  | <p>ARCH 331 Studio (coordinator)<br/>           ARCH 332 Studio (coordinator)<br/>           ARCH 480 Technical Systems Integration</p>  |
| <p>Rehman, Nida<br/>           Visiting Assistant Professor</p>                       | <p>Urban history and theory; urbanism in South Asia; water and infrastructure.</p> <p>Architect / Project Manager, ORG, Somerville MA, 2009-10; “Lahore’s Two Rivers: Stories of Decay and Reform” (THAAP Publications, 2012)</p>   | <p>Hired in Fall 2012</p>  | <p>ARCH 131s Basic Design Studio I<br/>           ARCH 132 Basic Design Studio II<br/>           ARCH 316 Analysis of Human Settlements: Cities<br/>           ARCH 312 Critical Postcolonial and Contemporary Perspectives in South Asian Architecture<br/>           ARCH 536 Design-Inquiry</p> |
| <p>Shaffer, Marcus<br/>           Assistant Professor</p>                            | <p>Works, theories, and practices that engage <i>the Machine</i> as an architectural extension of our impulse to examine and remake the natural world.</p> <p>“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, with Nathan King)</p> | <p>ARCH 432 Architectural Design VI / SLoPS<br/>           ARCH 431 Architectural Design V / SLoPS<br/>           A&amp;A 491 IdeaLab<br/>           ARCH 497I: Rammed Earth Wall<br/>           ARCH 204 Materials and Building Construction II<br/>           ARCH 203 Materials and Building Construction I</p> | <p>ARCH 492 Architectural Design VIII - Thesis<br/>           ARCH 491 Architectural Design VI - Thesis<br/>           A&amp;A 491 IdeaLab</p>   |
| <p>Staub, Alexandra, PhD<br/>           Associate Professor</p>                      | <p>Soviet urban paradigms and their implications for the formation of community.</p> <p>Several publications in various journals and books.</p>   | <p>ARCH 321 – Architectural Design III<br/>           ARCH 332 – Architectural Design IV<br/>           ARCH 520 – Methods of Inquiry in Architecture and Urban Design<br/>           ARCH 600: Thesis Research</p>  | <p>ARCH 331 – Architectural Design III<br/>           ARCH 332 – Architectural Design IV<br/>           ARCH 520 – Methods of Inquiry in Architecture and Urban Design<br/>           ARCH 600: Thesis Research</p>  |

| Faculty Member   | Summary of Expertise, Recent Research, or Experience  | Courses Taught:<br>Fall 2011 – Spring 2012   | Courses Taught:<br>Fall 2012 – Spring 2013   |
|--|---|--|--|
| <p>Willis, Dan, RA<br/>Professor</p>              | <p>Relationship between architecture and technological change; theories of details and construction methods; theories of drawing and representation.</p> <p>“Architecture and Energy: Performance and Style”, ed.; Grant recipient: Department of Energy EEB Hub Grant, Philadelphia Navy Yard.</p> <p>Licensed Architect: PA</p> | <p>ARCH 596 Graduate Level Independent Study</p>   | <p>ARCH 204 Building Materials and Construction II<br/>ARCH 596 Graduate Level Independent Study</p>   |
| <p>Wing, Scott, AIA<br/>Associate Professor</p>  | <p>Bridging architectural technology and poetic intention from urban scales to the detail; learning by making through design/build; probing the ethical dimensions of design.</p> <p><i>Interdisciplinary Collaborative BIM Studio</i>, Publication in conference proceedings.</p> <p>Licensed Architect: PA</p>                  | <p>ARCH 492: Architecture Design VII – Thesis (BIM/IPD option)<br/>ARCH 600: Thesis Research</p> | <p>ARCH 492: Architecture Design VII – Thesis (BIM/IPD option)<br/>ARCH 131s: Basic Design Studio I<br/>ARCH 132: Basic Design Studio II</p> |

## EEO/AA Policies and Procedures

The following excerpts describe Penn State's policies and procedures relative to Equal Employment Opportunity and Affirmative Action (EEO/AA) for faculty, staff, and students:

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, harassment against any person because of age, ancestry, color, disability or handicap, genetic information, national origin, race, religious creed, sex, sexual orientation, gender identity or veteran status and retaliation due to the reporting of discrimination or harassment. Discrimination, harassment, or retaliation against faculty, staff or students will not be tolerated at The Pennsylvania State University ([AD42](#)).

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 committees 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](#).

## Other Initiatives for Diversity

Consistent with Penn State's emphasis on diversity, which the University website refers to as the [Framework](#), or our "roadmap for achieving our diversity goals," the Department, Stuckeman School, and the College of Arts and Architecture are committed to equality and diversity in all aspects of their operations. The [Framework](#) is a parallel strategic plan that addresses diversity issues outside the University, College, and academic unit level strategic plans. The University policy clearly stresses the importance of colleges and departments developing their own diversity plans: "Although diversity planning will continue to occur in a parallel planning process, units should take advantage of the opportunity to incorporate related elements of their goals and commitments regarding diversity into the larger context of the unit's future vision and strategies."

Among the four goals of the College of Arts and Architecture Strategic Plan, Goal II states: Prepare students to thrive in a global and diverse environment. The strategies identified to accomplish this goal include the need to create a climate that encourages learning from diverse perspectives, using data available through University resources and engaging college/school diversity committees to develop specific goals and measures.

The Stuckeman School Strategic Plan explicitly states that by collaborating with an increasingly diverse range of professionals, communities, and individuals, we aspire to become global citizens participating in the discovery and making of responsible living environments. We are creative and innovative scholars and stewards, with a vision expanding beyond landscapes and buildings.

The Department Strategic Plan not only incorporates the diversity goals and strategies of the University, College, and School plans, but also includes additional ones consistent with the nature and peculiarities of contemporary architectural education. Goal five of the Department Strategic Plan specifically addresses diversity: "Increase educational opportunities that expose students to diverse cultural conditions." The Department is committed to providing students with opportunities to study in a variety of diverse cultural and physical contexts: urban and rural, domestic and international. Diversity begins at home, and the Department is committed to providing an academic environment that reflects the diversity of American culture. Study abroad provides students the opportunity to learn about and respect, through direct experience and immersion, diverse cultures, and understand the fundamental truism that architecture is, and always has been, a critical and inextricable component of society and culture. Study abroad confirms for students the validity of experiencing and understanding precedents and primary sources from historical as well as contemporary perspectives. However, study abroad locations should include not only places of historical significance, or where esteemed examples of contemporary design can be found, but also underdeveloped and developing regions of the globe. The plan identifies the following strategies to accomplish these diversity goals:

- Assure a diverse student body, faculty, and staff.
- Continue recruitment, yield enhancement, and fundraising for need-based scholarships to maintain gains in the enrollment of underrepresented groups (particularly African-American students) in the Architecture student body. Develop target numbers based on specified criteria.
- Recruit faculty and staff from underrepresented groups to diversify faculty and staff populations.
- Use the summer camp for high-school students as a recruiting tool for underrepresented minorities; continue and increase need-based scholarships for the program.
- Aggressively recruit underrepresented minority students through outreach.
- Analyze retention trends and graduation rates of underrepresented minority students in the program and develop a plan to increase retention/graduation if analysis shows this to be an area of concern.
- Mirror the minority population percentages within the Commonwealth of PA and adjoining states.
- Support a student chapter of the National Organization of Minority Architects (NOMA) to create a welcoming environment and contribute to the retention of minority students by facilitating social interactions between students and faculty.
- Support "Freedom by Design" [the AIAS community service program that utilizes the talents of architecture students to radically impact the lives of people in their community through modest design and construction solutions]. Offer credits for participation to encourage more student involvement, for example through a summer design-build course.

### **Human Resource Development Opportunities**

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.

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 2012/13, we supported 15 faculty with funding to travel to conferences at a total of \$26,686.55. 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 fund.

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, to 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** promote design research, theoretical investigations and/or 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 table shows 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/Grant  | Faculty              | Fiscal Year | Budget    |
|--|----------------------|-------------|-----------|
| <b>Collaborative Design Research (Stuckeman School)</b>  |                      |             |           |
| Hybrid of Research and Exhibition  | Baek/Muramoto        | 2009        | \$11,200  |
| Mapping Design Domains and Opportunities   | Willis               | 2009        | \$4,000   |
| Building integrated wind energy: connecting aesthetics and performance                                 | Poerschke            | 2010        | \$9,104   |
| IPD in Academia-Beyond Just Bim  | Wing                 | 2012        | \$5,000   |
| The Weight We Carry-The Hazardous Legacy of our Past and the Rehabilitation of Lead Contaminated Sites | Kalsbeek             | 2012        | \$14,968  |
| CROMA Analysis   | Cardoso Llach        | 2013        | \$34,858  |
| <b>Design Computing (Stuckeman School)</b>   |                      |             |           |
| National Begin Design Studio Conference  | LaCoe                | 2011        | \$16,000  |
| Anatomy of a Green-House: Teach Green with Augmented Reality at the Discovery Space of Central PA      | Muramoto             | 2012        | \$14,589  |
| Stuckeman School Printing  | La Coe               | 2013        | \$6,514   |
| Urban Design Studio: Approaches to Design Thinking using iPads   | Pihlak               | 2013        | \$12,152  |
| Liquid Thresholds  | Nazarian             | 2013        | \$31,344  |
| <b>College Faculty Research Grant</b>  |                      |             |           |
| Architecture Machines  | Marcus Shaffer       | 2008        | \$8,505   |
| Sense-equipped ego: and Empathy: The Communal Spatiality in R. Neutra's Residential Architecture       | Jin Baek             | 2009        | \$7,190   |
| Spatial Guidelines for Community-scale Renewable Energy Solutions                                      | Lisa lulo            | 2009        | \$9,000   |
| The Poetics of Work  | Dan Willis           | 2009        | \$14,000  |
| Constructing Green: The Social Construction of Green Building  | Rebecca Henn         | 2010        | \$6,000   |
| Active Living in Small Town Environments.  | Jawaid Haider        | 2010        | \$19,600  |
| The Pompeii Forum Project  | Jamie Cooper         | 2010        | \$12,500  |
| American Architects, Postwar Rome, and a Liberal Academy   | Denise Costanzo      | 2012        | \$14,720  |
| <b>Other Grants and Fellowships</b>  |                      |             |           |
| Center for Design Research and Innovation  | Rebecca Henn         | 2011        | \$4000    |
| Astorino Fellowship  | Denise Costanzo      | 2010        | \$3000    |
| Incentives and Innovations   | Christine Gorby      | 2010        | \$15,000  |
| Hamer Center   | Alexandra Staub      | 2009        | \$7000    |
| Bowers Program   | Ute Poerschke et. al | 2010        | \$52, 666 |

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 (Angel) are offered annually at no charge. The Department provides substantial support for faculty participation in educational seminars directly related to an instructor's teaching or advising responsibilities.

### **Appointment, Promotion and Tenure Policies**

Penn State University is an equal opportunity employer. The Department advertises nationally in professional magazines, journals, and through recruiting agencies. The Department seeks the most qualified faculty for the available position and in doing so follows criteria set forth by Affirmative Action Guidelines and Policies. The Head and a faculty search committee, comprised of elected and appointed faculty, review applications received, and evaluate the candidate's qualifications in relation to the department's stated needs. Selected candidates are invited to the campus to meet with administrators, faculty, and students. Invited candidates make presentations to the faculty and students, and meet

informally with each group to give all participants in the process an opportunity for evaluation. The department head seeks reactions and comments from faculty and students. The final selection is made by the head and forwarded to the dean for final offer and subsequent appointment.

Promotion and tenure policies are summarized in Penn State [Policy HR23](#). The University may grant tenure following Department and College reviews at the end of six years. Department, College and University committees and administrators review candidates according to guidelines adopted by the University Faculty Senate, the College faculty, and the Department faculty. Reviews occur at the second, fourth, and sixth year and the faculty member is informed of the results of these periodic reviews. Promotion follows a similar review process with the Department Head initiating the recommendation of promotion of individual faculty members. All tenured faculty who have been tenured for at least seven years and have not been reviewed for promotion for five years or more at Penn State, and have not agreed upon a retirement date, are required to undergo a post-tenure review. The review is based on performance in teaching, research and creative accomplishments, and service. All faculty are required to demonstrate a career-long commitment and contributions in these three areas of evaluation.

### **Faculty Resumes**

Resumes for faculty are included in Supplemental Information Section IV.2.

### **Visiting Lecturers**

#### 2013/2014

Roberto Rovira  
Richard Hindle (A.E. Bye)  
Chris Counts  
David Heasty and Stefanie Weigler  
Mary Woods  
Mark Focht  
Ada Tolle  
Brad Cloepfil  
Hu Jie  
Marlon Blackwell  
Zhongjie Lin  
Achim Menges  
Blaine Brownell  
Caroline O'Donnell  
Anne Spirn  
Toru Mitani  
Leonie Sandercock (Bracken)  
Charlie Koolhaas

#### 2012/2013

Thaisa Way  
Alvaro Rojas  
Jonathan King  
Joshua Freese  
Zhu Yufan\*  
Carl Lostritto  
Anna Dyson  
David Lewis  
Zhang Li  
Michael McCune  
Randall Jones

Anuradha Mathur\*  
Will Bruder  
Arancha Munoz Criado  
Frank Escher  
Michael Webb\*  
Mark West\*  
Nikolas Bakirtis

2011/2012

Unchung Na & Sorae Yoo – Nameless Architects / NYC & Seoul, S. Korea  
Andrea Zittel / NYC & Joshua Tree, CA  
Simon Kim / Studio I/K and U Penn Design / Cambridge MA  
Martin Kaltwasser / Köbberling & Kaltwasser / Berlin  
Michelangelo Sabatino / U Houston  
Tim Pearce / Filmmaker / London  
Sharon Haar / U Illinois, Chicago / Author-Educator  
Dick Buchanon / Weatherhead School, Case Western Reserve  
Jon Cagan / Carnegie-Melon  
Peggy Deamer / Yale

2010/2011

Joseph Barnes  
Eric Bricker / Independent Film maker  
Brenda Webster  
Jaques Heim / Choreographer / Dance Theater Diavalo / Los Angeles  
Gianni Pettena  
Emily Pilloton / Project H Design  
Dennis Shelden / MIT – Gehry Technologies  
Adam Yarinsky / Architecture Research Office / NYC  
Ulrich Knaack  
David Leatherbarrow / U Penn Architecture / Author  
Beatriz Colomina / Princeton Architecture / Author  
Harry Mallgrave / U Chicago / Author  
Joan Ockman / U Penn / Author  
Garth Rockcastle / Alumni Award / U Maryland  
Michael Rotundi / ROTO Architecture / LA

2009/2010

Sarah Wigglesworth / Sarah Wigglesworth Architects, UK  
David Serlin / U California, San Diego / Author  
Bill Dowel / Herman Miller  
Vivian Loftness / Carnegie-Mellon  
John Jackson / Buro Happold  
John Folan / Carnegie-Mellon  
Joshua G. Stein / Radical Craft / Los Angeles  
Mark West / C. A. S. T. / U Manitoba  
Peter Lynch & Gustavo Crembril / Studio THEM & City College / NYC  
Alfred Zollinger & Sandra Wheeler / Matter Architecture Practice / NYC  
Kyna Leski & Christopher Bardt / Studio 3-Six-O & RISD Architecture / Providence RI  
Laura Hartman / Fernau + Hartman Architects  
Michael Pride

2008/2009

Laura Cabo / GUND Partnership / Boston

Matthys Levy / Author & Engineer / NYC  
Julia Czerniak / CLEAR  
William Loose  
John Gero  
John Hoke / Nike / Alumni Award  
William Loose / Bohlin, Cywinski, Jackson  
James Carpenter / James Carpenter Design Assoc. / NYC  
Marion Weiss & Michael Manfredi / Manfredi-Weiss Architects / NYC  
Setha Low  
George Descombes

2007/2008

Margie Ruddick / WRT  
Graham Wyatt / Robert A. M. Stern Architects  
Anna Klingman / Klingman Architecture brand Development  
Enrique Norten / TEN Arquitectos / Mexico City & NYC  
Marco Frascari / Carleton U  
Michael Sorkin / Sorkin Studio / NYC  
Grahame Shane / Columbia  
Chris Reed / Stoss Landscape Urbanism

**Guest Critics**

2012/2013

Shayne O'Neil  
Felecia Davis  
Cathy Braasch  
William Meyer  
Ateya Khorakiwaia  
Tony Guido  
Matthew Mindrup  
Paul Emmons  
Todd Woodward  
Snezana Litvinovic  
David Leven  
Debra Fuller  
Dana Cupkova  
Marleen Davis  
Jonathan Junker  
Kyna Leski  
Peter Lynch  
Chris Marcinkoski

2010/2011

Charles Starks  
Gianni Pettena  
Charles Starks  
Michael Ambrose  
Dennis Sheldon  
James Williamson  
Bryan Cannon  
Brenda Webster  
Franco Trubiano  
Rudolph Mathias

Andrew Phillips  
Alberto Perez-Gomez  
Michael Rotondi  
Vassilis Ganiatsas  
Leslie Gill

2009/2010

Robert McClure  
Charles Rosenblum  
Douglas Patt  
Sylvia Feng  
Margaret Deamer  
Michael Pinto  
Jason Smith  
Garth Rockcastle  
Bruce Quigley  
Alexandra Hoffman  
Snezana Litvinovic  
Doug Patt  
Logan Myers  
Debra Fuller  
Christine Mondor  
Jonathan Teicher

2008/2009

Stacie Keppel  
Michael Shively  
Marilia Rodriguez  
Dan Magno  
Ken Roscioli  
Michael Ambrose  
Raymond Ryan  
James Kruhly  
Paul Mankiewicz  
Thomas Leslie  
Brian Healy  
Mary McLeod  
David Leatherbarrow  
Julia Czerniak  
Laura Hartman  
James Radock

**Conferences and Symposia**

2012/2013 – 2013/2014

Dredge Symposium – Landscape Architecture  
Dennis Crompton Exhibition / one-day symposium

2012/2013

“WWW Drawing Symposium”– organized by Mehrdad Hadighi and Janet Abrams, spring 2013.  
“Challenges & Opportunities in Green Infrastructure Symposium” – Eliza Pennypacker, April 9-11  
“New Directions in Campus Urbanism: A Stuckeman School Discussion Symposium” – Ray Gastil, April 11-13, 2013.  
AIAS Conference – organized by Aaron Wertman and AIAS, March 2013

Digital Beehive Workshops– organized by architecture student Kyle Schillaci ,Fall 12/Spring 13.  
“Nature of Spatial Practices Grad Conference” – organized by Aparna Parikh, February 1, 2013.  
“BIM Symposium” –organized by Scott Wing and Robert Holland, April 15, 2013.  
“National Conference on the Beginning Design Student 2012 Conference” – organized by Jodi LaCoe, March 2012.  
“Architecture and Energy Symposium” (collaboration between the architecture faculty from PennDesign and Penn State, and the Energy Efficient Buildings Hub) – organized by Dan Willis, January 2013. This conference occurred in 2012 and 2011, as well.  
“Stuckeman School Faculty Research and Creative Projects” – organized by Danielle Rivera, Spring 2012

#### 2009/2010

“Environmentally Conscious Design – Educating Future Architects” – symposium organized by Committee for Environmental Conscious Design (CECA), Fall 2009.

### **Exhibitions**

#### 2013/2014

Marcus Shaffer Exhibition  
Chris Counts Exhibition  
Juan Ruescas Exhibition  
Dennis Crompton Exhibition  
Darla Lindberg Exhibition  
Anne Spirn Exhibition  
Toru Mitani Exhibition  
Thaisa Way Exhibition  
Caroline O'Donnell Exhibition

#### 2012/2013

Zhu Yufan, "The meaning of Original Position in Landscape Design" – Rouse Gallery, Fall 2012.  
Stuckeman School 50th Anniversary Alumni Exhibition – Rouse Gallery, Spring 2013.  
WWW Drawing – Mike Webb, Mark West, James Wines – Rouse Gallery, Spring 2013.  
Anuradha Mathur, ““Mississippi Floods: Designing a Shifting Landscape,” “Deccan Traverses: the Making of Bangalore’s Terrain,” and “Soak: Mumbai in an Estuary.” – Rouse Gallery, Fall 2012.

#### 2010/2011

Christine Gorby, “Deviant Decoration Symposium” – Rouse Gallery, Spring 2011.  
Hamer Center Community Design Project s– Rouse Gallery, Spring 2011.  
Building-Integrated Wind Energy (BIWE) Exhibit – Rouse Gallery, Fall 2011.

### **Student Admission**

The overwhelming majority of students admitted to the Bachelor of Architecture program are entering freshman students who enroll immediately following their high school graduation. These students are evaluated for admission based on their high school GPA and SAT scores. Demand for the program is extremely high. The average number of freshman applicants per year is 800-900. The average number of freshman offers per year is generally above 200 or 25% of all applicants. Because the students who are offered admission to the Bachelor of Architecture program have impressive academic credentials and have applied for admission to a number of educational institutions, the average yield (i.e. the percentage of freshmen who accept their offer of admission and actually enroll in the program) is around 35%.

## 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, and financial aid, and health services.

A full day parent/student orientation program, FTCAP (Freshmen Testing, Counseling and Placement), is conducted by the University, College, and the Department during each summer to assist with fall registration procedures and to impart basic information on the structure, goals, and objectives of the program. The students receive counseling from the Department Faculty Advisor to help them in course selection while parents are hosted in a general information session where they are invited to ask questions and obtain relevant information about Penn State.

The Educational Opportunity Program (EOP) is a special admission program that demonstrates the University's commitment to equal access in higher education throughout the Commonwealth of Pennsylvania. The program is designed for residents who are recent high school graduates with academic promise, but who are both educationally and financially disadvantaged. The EOP has been in existence since 1969 and has provided access to Penn State at all locations. EOP candidates apply for admission to Penn State in the usual manner and must meet the high school graduation requirement (high school diploma or its equivalent) for admission.

Students who meet EOP academic and financial guidelines are granted a personal interview. Based on results of the interview, a student may be offered admission at University Park campus through the Comprehensive Studies Program (CSP) or admission at another Penn State location. Once accepted, EOP students are admitted as resident degree students and are offered counseling, study skills programs, and tutoring and learning support with emphasis on highly individualized support. While the Undergraduate Admissions office is primarily responsible for the recruitment and admission of EOP students, all the support services offered by the program at University Park campus are administered through the vice provost for Educational Equity. Most programs at other Penn State locations have EOP coordinators who operate their support services and maintain a close liaison with University Park campus.

The Schreyer Honors College allows academically superior students to select from a wide variety of special honors sections of courses. Student progress may be enhanced with special courses, independent study and research, graduate level courses, and honors-option work in their regular courses. All students admitted to the Schreyer Honors College must attain both semester and cumulative grade point averages (GPAs) of at least a 3.40 while maintaining full-time enrollment (a minimum of 12 credits) in the fall and spring semesters to remain in good academic standing.

The Department encourages close interaction between faculty, staff, and students; thus, student advising, formal and informal, is a high priority. In May 2007, an advising coordinator and assistant to the head position was created and filled by Robert Fedorchak, who provided professional academic advising support primarily to all first and second year students and secondarily to others. In 2011 Kirk Dimond assumed the position of Advising Coordinator for the School. Incoming architectural students are greeted in a summer orientation session conducted by Mr. Dimond in collaboration with College personnel who counsel them on registration, the profession, performance expectations, and their upcoming life as a student. Initially, Mr. Dimond serves as their advisor and organizes advising sessions for students and various other programs aimed at promoting academic success.

Design studio faculty members contribute to advising students informally. Various resources are available for guidance such as the Advisor's Manual prepared by the College. The Department web site contains an extensive list of Frequently Asked Advising Questions, a Student Survival Guide, and downloadable advising forms. The Advising Coordinator monitors and updates this important part of our website.

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 recommendations for students seeking graduate education, 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 includes architects and recent graduates as guest speakers, as well as a required field trip to architects' offices. Professor Robert Holland, AIA NCARB, served as the Department IDP Coordinator from Fall Semester 2008 through Spring Semester 2013. Professor Nathaniel Belcher, AIA NCARB, became the School IDP Coordinator in Summer 2013. In addition, beginning in 2012, the Stuckeman School has retained a career advisor on staff. This position has been filled by Kristin Barry, who has met with each student in order to establish a contact and to start career preparation, such as resume and portfolio preparation, at an earlier stage of the students' careers

The Department organizes a spring [Career Day](#) for architecture students. For the last two years, the Career Day activities have been organized by Professor Robert Holland, with assistance from career advisor, Kristin Barry, and were held over three 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.

### **Off-Campus Activities**

Since its establishment in 1992, all fourth year students are required to participate in our Rome program. In 2009, Romolo Martemucci, a tenured full professor in the department and the long-time Director of the Rome program retired from Penn State and established the Pantheon Institute in Rome as its inaugural Director. The Pantheon Institute is officially recognized by the Ministry of Education in Italy (Ministero dell'Istruzione dell'Universita' e Ricerca) as an American institution of higher learning in Rome, Italy. The Pantheon Institute provides and hosts study abroad programs from a variety of colleges and universities, including the architecture department's Rome program. The Rome program offers fifteen semester credits of Design, Urban Studies, Architectural Analysis and Italian Language and Culture.

In addition, the department offers a one-credit field trip elective for students, especially Architectural Engineering students, to visit architecturally significant sites in a major urban area or city. For the past several years the field trip site has been Chicago, Illinois. During the past few years our students have travelled to the following venues:

### **International**

While on their study abroad program in Rome, students travel to many cities in Italy and Europe.

### **Domestic**

#### **Spring 2013**

|          |                                |
|----------|--------------------------------|
| Arch 204 | Doylestown, PA                 |
| Arch 232 | Penn College, Williamsport, PA |
|          | New York City                  |
| Arch 332 | Philadelphia, PA               |
|          | Bloomfield, PA                 |
| Arch 432 | Brooklyn, NY                   |
| Arch 443 | Chicago, IL                    |



Arch 451 Philadelphia, PA  
Arch 497A University Park Campus, various sites  
Arch 497J Philadelphia, PA

Non-course related: Trip to Carnegie Melon for students to attend a conference  
Trip to New York for exhibition of student work

**Fall 2012**

Arch 331 Pittsburgh, PA  
Arch 431 New York  
Arch 443 Chicago, IL  
Arch 451 Washington, DC  
Arch 491 Pittsburgh, PA

**Summer 2012**

Arch 497D Pittsburgh

**Spring 2012**

Arch 232 New York City  
Penn College, Williamsport, PA  
Arch 332 Pittsburgh, PA  
Erie, PA (2 trips)  
New York City (2 trips)  
Arch 432  
(w/ LArch 414)  
Arch 443 Chicago, IL  
Arch 497B University Park Campus, various sites

**Fall 2011**

Arch 331 Philadelphia, PA  
Arch 431 Toronto, Canada  
(w/LArch 414) Windsor, Canada  
New York City  
Arch 443 Chicago  
Arch 451 New York  
Washington, DC

**Spring 2011**

Arch 132 New York City  
Arch 204 Doylestown, PA  
Arch 232 New York City  
Penn College, Williamsport, PA  
Arch 332 Philadelphia, PA  
Arch 432 Toronto, Canada  
(w/ LArch 312) Pittsburgh, PA  
Arch 443 Chicago, IL

**Fall 2010**

Arch 331 Erie, PA  
Arch 443 Chicago  
Arch 451 Washington  
New York City

**Spring 2009**

Arch 132 New York City  
Arch 332 New York City  
Arch 432 Washington, DC  
Arch 443 Chicago, IL

**Fall 2008**

|                |                            |
|----------------|----------------------------|
| Arch 131S      | Pittsburgh, PA             |
| Arch 203       | Fallingwater, Mill Run, PA |
|                | State College area sites   |
| Arch 431       | Toronto, Canada            |
| (w/ LArch 414) |                            |
| Arch 431       | Philadelphia, PA           |
| Arch 443       | Chicago, IL                |
| Arch 451       | Washington, DC             |
|                | New York City              |

The site of the fifth year thesis design project is student selected and frequently involves field trips to communities throughout Pennsylvania, and to urban areas such as Boston, Washington, D.C., and New York City. Some fifth-year projects have chosen international sites and have been located in countries such as Cuba, India, Japan, Mali, Panama, Sierra Leone, Tanzania, and The Netherlands.

**Student Societies**

All students of architecture have ample opportunity to participate in student professional societies and organizations, honors societies, and other campus-wide student activities. Through the local chapters of Alpha Rho Chi, the Architecture Student Interest House, and AIAS, students may participate in campus-wide events such as the charitable "Dance Marathon," which raises funds for cancer research, guest lecturers with an architecture topic, a portfolio workshop, and AIAS Grassroots conference. Students are encouraged to participate in these organizations, and certain latitude is granted in design studio to avoid schedule conflicts with major campus-wide events. More information on [Activities and Organizations Related to Architecture](#) is readily available on the department website.

Penn State's Schreyer Honors College admits a large number of academically superior students every year. The honors program intellectually challenges students to go beyond the norm, and offers special sections of honors courses, seminars, and options. After successfully completing all honors program requirements, Schreyer Honors College participants receive a medal and recognition through a special graduation ceremony. The medal is engraved with the phrases "Scholarly Achievement," "Integrity of Purpose," and "Intellectual Curiosity." The College provides special housing, grants, and awards as well.

Penn State has over 800 recognized student organizations and there are many opportunities for architecture students to find something to connect with. Events provided for student organizations include the Student Organization Success Series, Officer Meetings, Officer Roundtables, Advisor Brown Bags, and the Involvement Fair. Every recognized student organization president receives the President's Listserv email every week, which keeps organizations updated or informed about important upcoming events and announcements.

**Facilitation of Student Research, Scholarship, and Creative Activities**

Penn State Undergraduates who are presenting the results of their research at professional conferences may request financial support to defray the costs of attendance at the conference. The Office of the Dean of the College of Arts and Architecture is able to offer funds to support undergraduate research and creative activities. The purpose of these funds is to provide undergraduate students with the opportunity to engage in research or creative activities related to their field of study and should be planned in close consultation with a faculty mentor in the student's major field of study and supported by the faculty mentor on the Funding Request Form. The Department supports student development through financial support for conference attendance and travel for selected thesis research projects. In 2012/13, 23 students traveled to conferences for presentations and were supported with \$6549 department funding, \$5496 College funding, and \$897 School funding. In the past two years architecture students received funding to

participate in the following national conferences, and the many of them presented their scholarly, research, or creative work at these venues:

American Solar Energy Society Solar 2013 Conference, Baltimore  
Greenbuild and Design Like You Give A Damn conference in San Francisco  
Rob-Arch Conference, Vienna, Austria  
Spaces and Flows Conference 2012, Detroit  
Constructed Environmental Conference 2012, Vancouver, Canada  
CriticalMass 2013 Conference, Charlotte  
AIAS Quad Conference, University Park, Penn State  
AIAS Quad Conference and AIAS Conference (Grassroots), Washington, DC 7/21-24  
NOMA Conference, Detroit  
MNSAH 6th Annual Student Symposium, St. Paul Campus, Minnesota  
6th Intl. Conference, Design Principles & Practices, Los Angeles  
EDRA 43 Conference, Seattle  
Aging Means Business: Design for a New Age, Boston  
Sixth International Conference on Design Principles and Practices, Los Angeles

Architecture students at Penn State have many opportunities to apply for research grants and compete for awards for creative work. In the past, students have been successful in acquiring the University Summer Discovery Grant, which provides funding for travel and supplies to initiate research in the summer that the student intends to pursue the following academic year with a faculty advisor. Students have been successful in winning the Reuben and Gladys Golumbic Scholarship for Design Achievement for the last five years after a lively college-wide competition. Penn State students have also been recognized with an Honorable Mention for their entries in the Stewardson Competition, which is a design competition among the six architecture schools in Pennsylvania, for the three of the last five years. The Department encourages student participation in these research and creative endeavors as they offer different opportunities for acquisition of new abilities and knowledge beyond the traditional classroom.

Opportunities for undergraduate students to participate in faculty-led research and creative projects exist in the program as some faculty members have external, Penn State, College, or Stuckeman School grants in any given semester. The Hamer Center for Community Design has contributed substantially in this regard as one of the goals of the center is to operate a teaching and learning center where students and faculty explore new methodologies and expand project scopes to include an academic pursuit.

### **Support for Student Organizations and Honorary Societies**

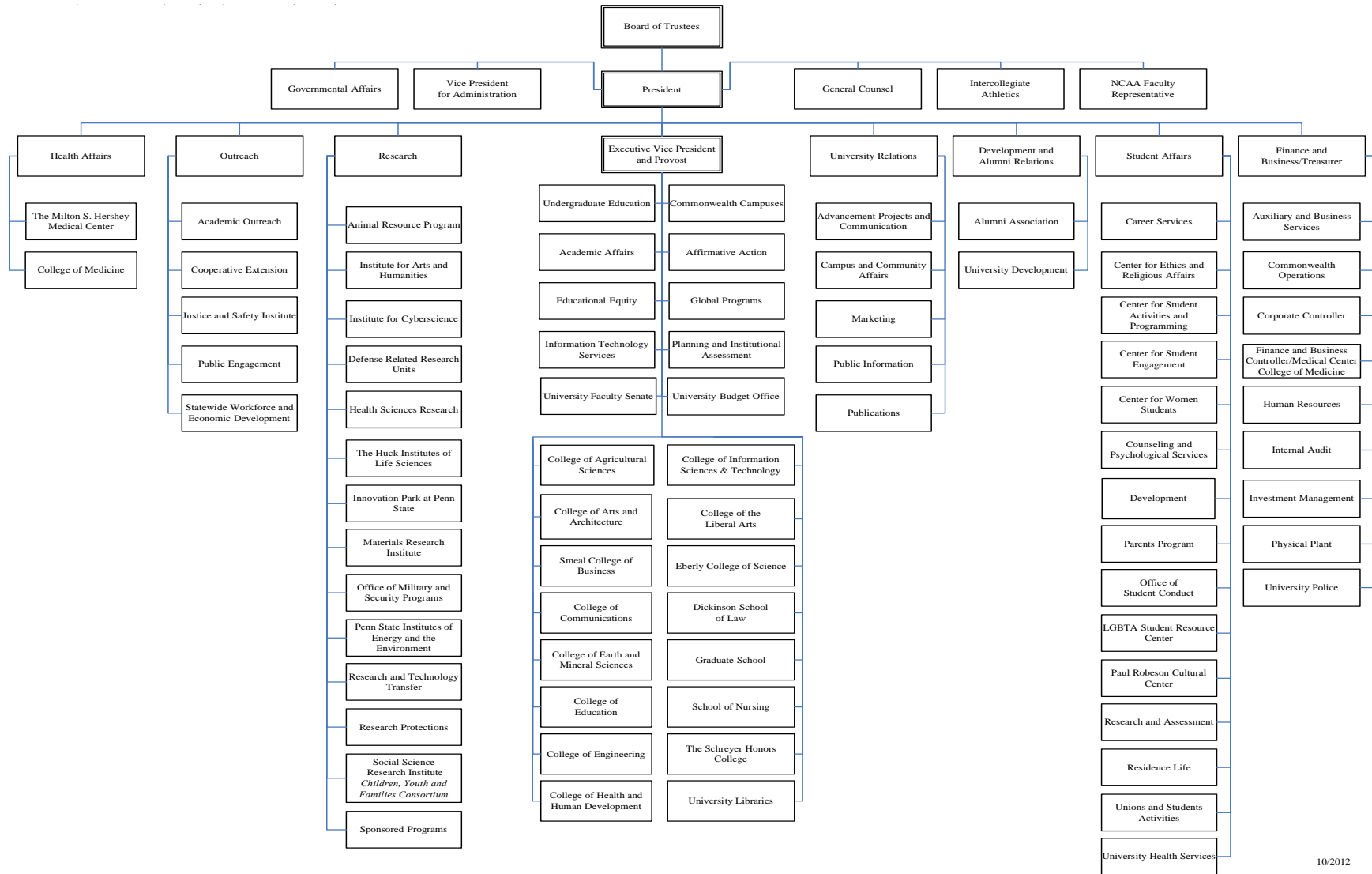
The Department of Architecture provides financial support every academic year to student professional organizations, including the student chapter of the National Organization of Minority Architects (NOMA). In addition, the Department provides additional funding for special events, which includes financial support to allow student leaders to attend conferences and professional meetings. AIAS officers receive funding to attend chapter and national meetings. Earlier this year in March, students received full support to organize a significant AIAS Quad Conference. This conference, run by the Penn State Chapter of the American Institute of Architecture Students, with over 275 students attending 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.

### **1.2.2 Administrative Structure & Governance**

The 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.

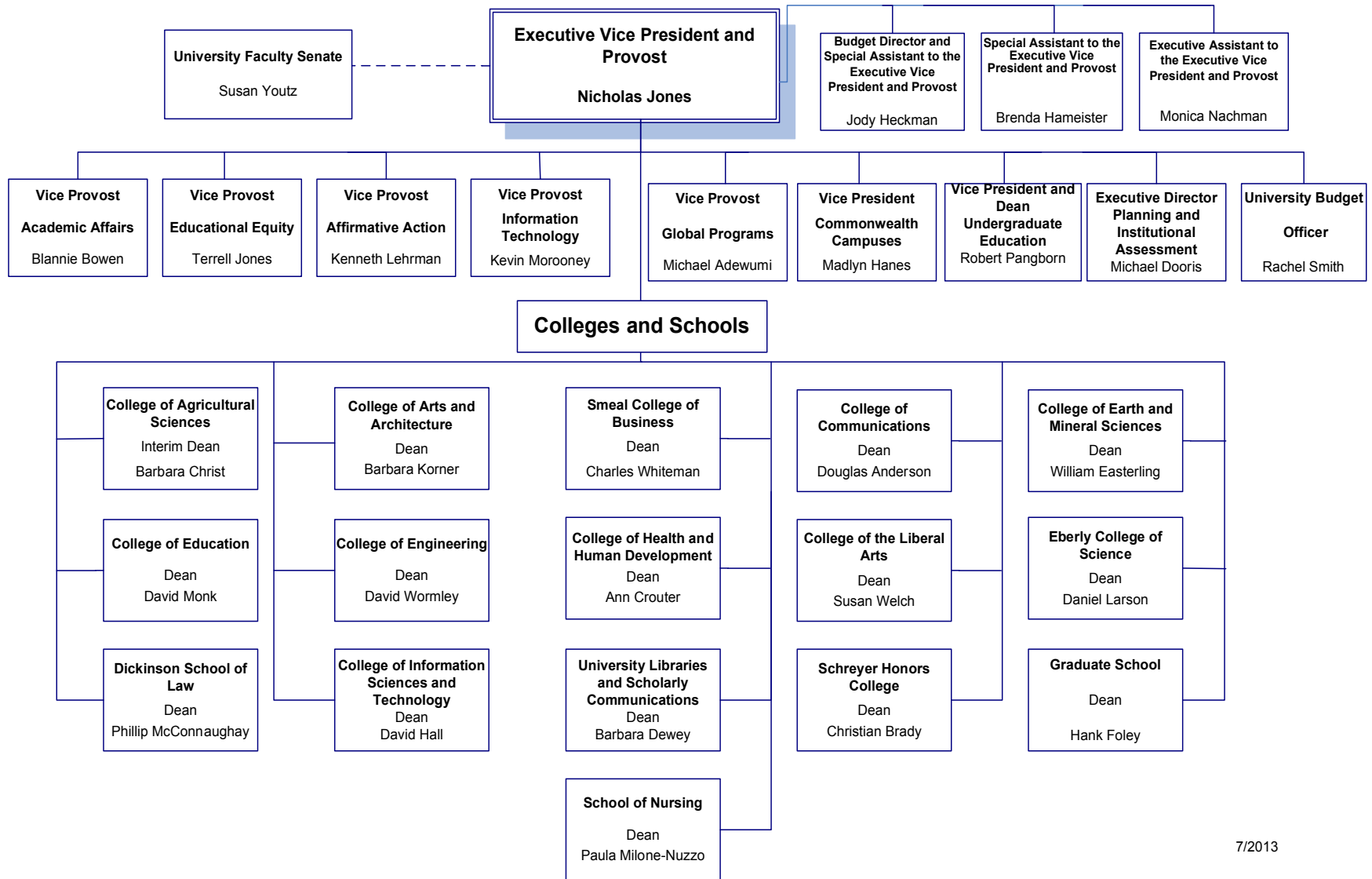
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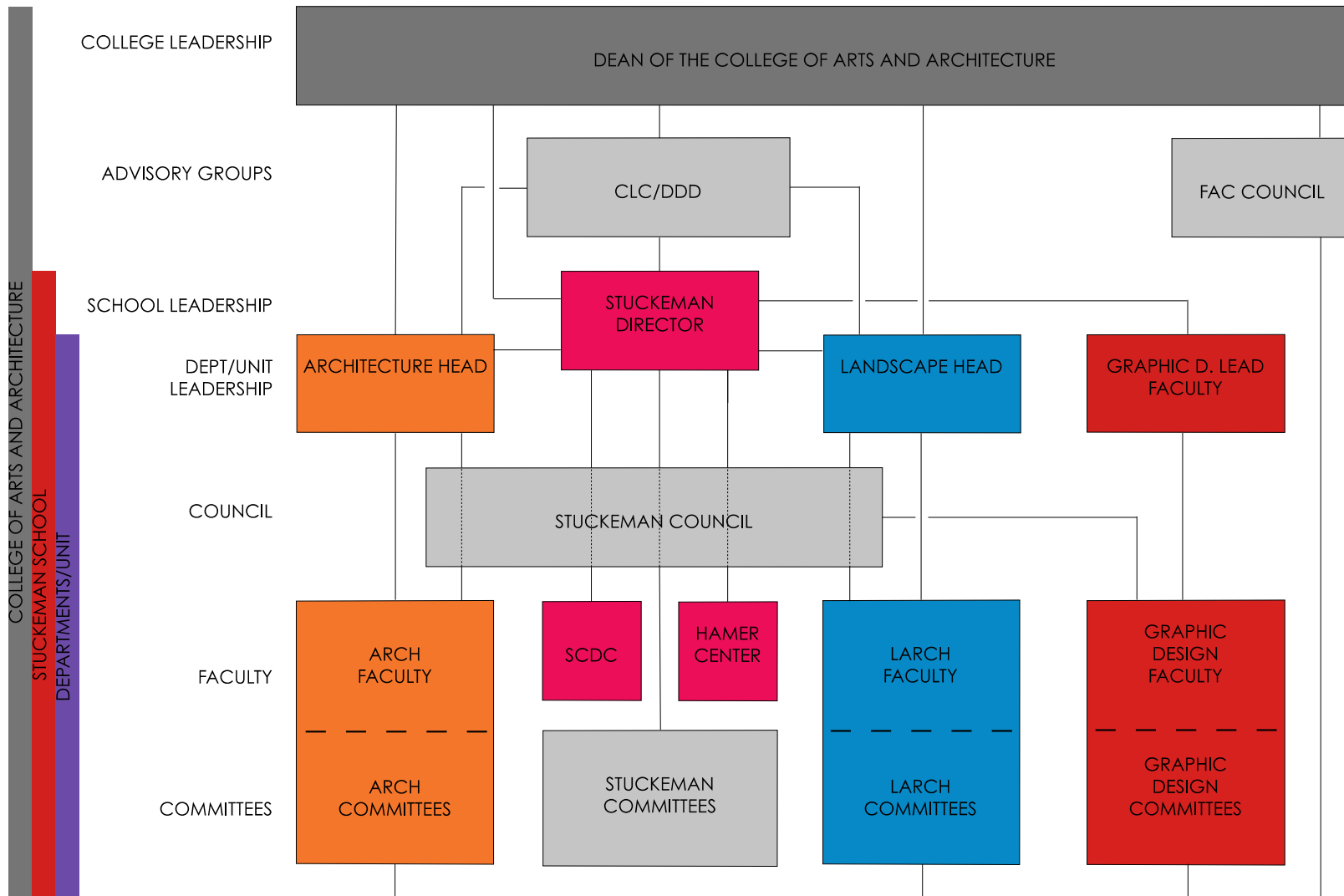
## Executive Vice President and Provost

### EXECUTIVE VICE PRESIDENT AND PROVOST



7/2013

**STUCKEMAN SCHOOL GOVERNANCE AND REPORTING STRUCTURE**



### **Involvement in Governance and Curriculum Development by Faculty, Staff, and Students**

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, student and, whenever needed, staff representatives. The Department also regularly meets staff and elected student representatives to discuss issues, policies, and procedures.

**Faculty responsibilities:** 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), and 30% to research and creative activities, and 10% to service and community outreach. Since the 2004/05 academic year, the Department of Architecture has retained an average of 24.33 FTE faculty. On average this figure includes 20.66 FTE tenure/tenure-track faculty.

**Faculty-student ratio:** To ensure participation in creative, professional, scholarly, and research endeavors, as well as active involvement of faculty in governance of the Department, we make efforts to keep the faculty/student ratios at a manageable level. However, we hope to be able to have more of a “critical-mass” in the upper years of the program, by having ratios closer to 1/11. The three-year average of the faculty-student ratio for design studio at each level is as follows:

|                             |      |
|-----------------------------|------|
| First Year                  | 1/16 |
| Second Year                 | 1/13 |
| Third Year                  | 1/13 |
| Fourth Year—University Park | 1/12 |
| Fourth Year—Rome, Italy     | 1/12 |
| Fifth Year                  | 1/8  |
| Graduate                    | 1/6  |

With the beginning of the new professional masters program (M.Arch) this fall, the Department has taken a multi-pronged approach to the issue of human resources, which would also potentially benefit our accredited undergraduate B.Arch program. We plan to seek additional support from the Dean’s office for graduate assistantships, achieve higher efficiencies via current realignment or redistribution of teaching assignments, and simultaneously continue to request more faculty lines. The Department’s efforts so far have shown encouraging results in all these areas.

In addition, with the Stuckeman Endowment fully vested, the Department is now able to hire seven additional faculty members each year (shared with the Department of Landscape Architecture). Some of these faculty will be teaching required courses, and others will bring an enhanced educational experience through new courses and electives.

**Administrative responsibilities:** 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 that assists the Head.

**Staff responsibilities:** There is a departmental staff assistant with 100% responsibility in the Department of Architecture. 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.

There are three technicians in the design computing lab, one of whom is assigned at 100% of his time, another at 50% of his time to the Department to support the operations of the Stuckeman Center for Design Computing and maintain the computer hardware and software for students, faculty and staff. The third person is available as backup when the other staff are out but is assigned to the Landscape Architecture department.

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 means. Their responsibilities vary depending upon departmental needs.

### **Committee Structure and Assignments**

The following two matrices illustrate the departmental committee structure and various committee assignments for 2012-13 and 2013-14.

2012/13 Service Assignments

Department of Architecture

|             | STATUS        | University                               | College Service |                                      |                    |   | SALA   | Department Service                  |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
|-------------|---------------|--|-----------------|--------------------------------------|--------------------|---|--|-------------------------------------|-----------|-------------------------------------|------------------|--------------------|-------------|-------------------------|-----------------------|----------------|---------------------------------|----------------|----------------------|-----------------|----------------------------|-----------|-------------|-------------------|-----------------------------|------------------------------|-------------------------------|------------|---------------|-----------------|-----------------------|----------------------------------|--------------------|------------------------|-----------------------|--------|--|--|--|--|--|
|             |               | FPAB: Facilities Planning Advisory Board | Faculty Senate  | Faculty Senate Committee on Research | Academic Integrity | Advisory Board, Inst. for the Arts & Humanities (IAH) | College Research Council/ Curricular Affairs | Creative Accomplishments & Research | Diversity | Faculty Council (elected 2 yr term) | Graduate Affairs | Promotion & Tenure | Recruitment | Sabbatical Leave Review | Scholarships & Awards | School Council | Hamer Center Steering Committee | ACSA Counselor | AIAS Faculty Advisor | APG Coordinator | Arch Studies Minor Advisor | AE Liason | Career Fair | Computer Advisory | Curriculum/ UG/Coordinators | Curriculum/Graduate/ MARCH I | Curriculum/Graduate/ MARCH II | Facilities | Foreign Study | IDP Coordinator | Lecture & Exhibitions | Recruitment/Prospective Students | Promotion & Tenure | Shreyer Honors Advisor | Scholarships & Awards | Search |  |  |  |  |  |
| Haider      | Full Prof.    |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Kalisperis  | Full Prof.    |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Lindberg    | Full Prof.    |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Willis      | Full Prof.    |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Wines       | Full Prof.    |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Aeschbacher | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Bandini     | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Gorby       | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Iulo        | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Kalsbeek    | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Muramoto    | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Pihlak      | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Poerschke   | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Staub       | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Wing        | Assoc. Prof.  |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Cardoso     | Assist. Prof. |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Cooper      | Assist. Prof. |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Henn        | Assist. Prof. |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| La Coe      | Assist. Prof. |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Shaffer     | Assist. Prof. |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Costanzo    | Multiyear     |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Holland     | Multiyear     |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Nazarian    | Multiyear     |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Rehman      | Multiyear     |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Aviles      | FT1           |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Heilman     | Staff         |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |
| Sutley      | Staff         |  |                 |                                      |                    |   |  |                                     |           |                                     |                  |                    |             |                         |                       |                |                                 |                |                      |                 |                            |           |             |                   |                             |                              |                               |            |               |                 |                       |                                  |                    |                        |                       |        |  |  |  |  |  |

■ Indicates Committee Chair

2013/14 Service Assignments  
 Department of Architecture

|                    | STATUS        | Architect Screening/Selection | FPAB: Facilities Planning Advisory Board | Faculty Senate | Faculty Senate Committee on Research | Academic Integrity | CAA Curricular Affairs | Creative Accomplishments & Research | Diversity | Faculty Council (elected 2 yr term) | Graduate Affairs | College Promotion & Tenure | Recruitment | Sabbatical Leave Review | Scholarships & Awards | SCDC Executive Committee | School Council | School Director Search Committee | ACSA Counselor | APG Coordinator    | AE Liason | Career Fair | Computer Advisory | UG/Coordinators | Curriculum/Graduate & Undergraduate | Facilities | Foreign Study | IDP Coordinator | Lecture & Exhibitions | Library Committee | MARCH 1 Admission | MARCH 2 Admission | NAAB Visit Prep | Graduate Recruitment/Prospective Students | UG Recruitment/Prospective Students | Promotion & Tenure | Shop Advisory | Shreyer Honors Advisor | Scholarships & Awards | Search |  |  |  |  |  |  |  |  |  |  |
|--------------------|---------------|-------------------------------|--|----------------|--------------------------------------|--------------------|------------------------|-------------------------------------|-----------|-------------------------------------|------------------|----------------------------|-------------|-------------------------|-----------------------|--------------------------|----------------|----------------------------------|----------------|--------------------|-----------|-------------|-------------------|-----------------|-------------------------------------|------------|---------------|-----------------|-----------------------|-------------------|-------------------|-------------------|-----------------|---|-------------------------------------|--------------------|---------------|------------------------|-----------------------|--------|--|--|--|--|--|--|--|--|--|--|
|                    |               | University                    |  |                | College Service                      |                    |                        |                                     |           |                                     |                  | SALA                       |             |                         |                       |                          |                |                                  |                | Department Service |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Belcher</b>     | Full Prof.    |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Haider</b>      | Full Prof.    |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Kalisperis</b>  | Full Prof.    |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Lindberg</b>    | Full Prof.    |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Willis</b>      | Full Prof.    |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Wines</b>       | Full Prof.    |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Aeschbacher</b> | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Cooper</b>      | Assist. Prof. |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Gorby</b>       | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Iulo</b>        | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Kalsbeek</b>    | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Muramoto</b>    | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Pihlak</b>      | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Poerschke</b>   | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Staub</b>       | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Wing</b>        | Assoc. Prof.  |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Cardoso</b>     | Assist. Prof. |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Henn</b>        | Assist. Prof. |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>La Coe</b>      | Assist. Prof. |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Shaffer</b>     | Assist. Prof. |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Costanzo</b>    | Multiyear     |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Nazarian</b>    | Multiyear     |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Rehman</b>      | Multiyear     |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Aviles</b>      | FT1           |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Cox</b>         | FT1           |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Heilman</b>     | Staff         |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |
| <b>Sutley</b>      | Staff         |                               |  |                |                                      |                    |                        |                                     |           |                                     |                  |                            |             |                         |                       |                          |                |                                  |                |                    |           |             |                   |                 |                                     |            |               |                 |                       |                   |                   |                   |                 |   |                                     |                    |               |                        |                       |        |  |  |  |  |  |  |  |  |  |  |

 Indicates Committee Chair

### **Other Degree Programs Offered in the Department of Architecture**

Bachelor of Science in Architecture  
Bachelor of Architecture (accredited)  
Master of Architecture (academic, non-accredited degree)  
Integrated B.Arch and M.Arch (only for academically superior students in the program)  
Master of Architecture (professional program beginning in Fall 2013)

### **I.2.3 Financial Resources**

#### **Departmental Budgets**

The Pennsylvania State University uses a “historical funding model”, which de-couples annual funding from enrollment, FTE’s, and such. The Department has had “flat” funding in the past. However, each year at the College level available “temporary” funds are distributed towards various initiatives by different College units. The Architecture Department continues to rigorously seek these “temporary funds” to support changes and strategic initiatives.

The fixed budget is achieved by adding to the historical budget the across-the-board increases in the salaries of faculty and staff—approximately 3% annually. In addition, as mentioned previously, we have already added three long-term fixed term faculty lines to our budget. The temporary budget numbers are negotiated annually at the College 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 Dean requested that our budget include the Endowment funds, which reduced the Department’s temporary request, but increased the overall budget. The budget information below has been developed from transactions and budget data compiled by the College of Arts and Architecture, the Stuckeman School, and the Architecture Department.

**Budget Summaries**  
**Department of Architecture - Operating Expenditures**

|   |                                   | 2007/08               | 2008/09               | 2009/10               | 2010/11               | 2011/12               | 2012/13               |
|---|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Faculty & Staff Salaries  | Permanent                         | \$1,653,408.00        | \$1,853,487.00        | \$1,800,941.00        | \$1,696,022.00        | \$1,760,038.00        | \$1,946,065.00        |
|   | Temporary                         | \$220,356.00          | \$164,466.00          | \$131,246.00          | \$159,611.00          | \$80,643.00           | \$262,154.00          |
| Employee Benefits   |                                   | \$655,800.00          | \$706,200.00          | \$676,100.00          | \$610,000.00          | \$586,958.00          | \$694,183.00          |
| <b>Subtotal Faculty &amp; Staff Support</b>                                   |                                   | <b>\$2,529,564.00</b> | <b>\$2,724,153.00</b> | <b>\$2,608,287.00</b> | <b>\$2,465,633.00</b> | <b>\$2,427,639.00</b> | <b>\$2,902,402.00</b> |
| Graduate Assistantship Stipends   |                                   | \$84,450.00           | \$78,436.00           | \$68,512.00           | \$60,995.00           | \$60,256.00           | \$112,795.00          |
| Wages   |                                   | \$8,763.00            | \$15,265.00           |                       |                       |                       |                       |
|   | Burt Hill/BH Bldg. Engy Sim Grant |                       | \$6,378.00            |                       |                       |                       |                       |
|   | Student Wages                     |                       |                       | \$3,365.00            | \$7,141.00            | \$12,840.00           | \$10,430.77           |
|   | Model Shop                        |                       |                       | \$179.00              | \$3,373.00            | \$2,269.00            | \$1,100.38            |
| <b>Subtotal Stipends &amp; Wages</b>  |                                   | <b>\$93,213.00</b>    | <b>\$100,079.00</b>   | <b>\$72,056.00</b>    | <b>\$71,509.00</b>    | <b>\$75,365.00</b>    | <b>\$124,326.15</b>   |
| Department Allotment  |                                   |                       |                       |                       |                       |                       |                       |
|   | Permanent                         | \$77,876.00           | \$77,876.00           | \$77,876.00           | \$77,876.00           | \$61,876.00           | \$61,876.00           |
|   | Temporary                         | \$60,330.00           | \$46,725.00           | \$106,835.00          | \$109,109.00          | \$167,614.00          | \$113,093.00          |
| Enhancement Funds   |                                   |                       |                       |                       |                       |                       |                       |
|   | Permanent                         | \$55,000.00           | \$55,000.00           | \$55,000.00           | \$55,000.00           | \$55,000.00           | \$55,000.00           |
|   | Temporary                         | \$31,967.00           | \$5,687.00            | \$0.00                | \$30,859.00           | \$30,859.00           | \$41,613.00           |
| <b>Subtotal Department Support</b>  |                                   | <b>\$225,173.00</b>   | <b>\$185,288.00</b>   | <b>\$239,711.00</b>   | <b>\$272,844.00</b>   | <b>\$315,349.00</b>   | <b>\$271,582.00</b>   |
| <b>Total Institutional Support</b>  |                                   | <b>\$2,847,950.00</b> | <b>\$3,009,520.00</b> | <b>\$2,920,054.00</b> | <b>\$2,809,986.00</b> | <b>\$2,818,353.00</b> | <b>\$3,298,310.15</b> |
| Annual Gifts  |                                   | \$38,703.00           | \$14,852.00           | \$9,190.00            | \$8,090.00            | \$8,905.00            | \$8,120.00            |
| Awards & Scholarships to students   |                                   | \$32,609.00           | \$50,940.00           | \$39,986.00           | \$42,035.00           | \$43,929.00           | \$42,788.00           |
| Architecture Program Support  |                                   |                       |                       |                       |                       |                       |                       |
|   | Scott program support             | \$2,119.00            | \$6,631.00            | \$2,500.00            | \$0.00                | \$0.00                | \$2,500.00            |
|   | Kossmann endowment (lecturer)     | \$2,500.00            | \$2,500.00            | \$2,500.00            | \$3,000.00            | \$2,500.00            | \$2,500.00            |
| <b>Total Architecture Private Support</b>                                     |                                   | <b>\$75,931.00</b>    | <b>\$74,923.00</b>    | <b>\$54,176.00</b>    | <b>\$53,125.00</b>    | <b>\$55,334.00</b>    | <b>\$55,908.00</b>    |
| Annual Gifts Income   |                                   | \$20,857.00           | \$9,776.00            | \$16,622.00           | \$9,140.00            | \$12,119.00           | \$8,750.00            |
| Permanently Allocated Graduate Assistantship Stipends                         |                                   | \$82,248.00           | \$85,127.00           | \$85,127.00           | \$88,106.00           | \$88,987.00           | \$91,657.00           |
|   |                                   | 2007/08               | 2008/09               | 2009/10               | 2010/11               | 2011/12               | 2012/13               |
| <b>School of Architecture &amp; Landscape Architecture - Endowment Income</b> |                                   |                       |                       |                       |                       |                       |                       |
| See Tables Below  |                                   |                       |                       |                       |                       |                       | \$510,333.00          |

**2012/13 Incoming Funds from Stuckeman Endowments**

|   |                      |
|---|----------------------|
| Graphics manager/event coordinator                            | \$ 15,000.00         |
| Special projects manager                                      | \$ 15,000.00         |
| Lectures/exhibitions  | \$ 25,000.00         |
| Studio reviews  | \$ 16,000.00         |
| New faculty startup   | \$ 13,333.00         |
| Stuckeman Practitioner Instructor Program Endowment in Design | \$ 34,000.00         |
| Stuckeman Career Development Professional in Design           | \$ 20,000.00         |
| Professorship in Advance Design Studies                       | \$ 50,000.00         |
| Stuckeman department head enhancement fund                    | \$ 30,000.00         |
| Stuckeman department head support                             | \$ 10,000.00         |
| Stuckeman writer/editor                                       | \$ 30,000.00         |
| Stuckeman career counselor                                    | \$ 20,000.00         |
| Stuckeman digital coordinator                                 | \$ 40,000.00         |
| Stuckeman operations manager                                  | \$ 30,000.00         |
| Stuckeman technology support                                  | \$ 62,000.00         |
| Stuckeman part-time shop assistant                            | \$ 24,000.00         |
| Stuckeman faculty grants                                      | \$ 30,000.00         |
| Website development   | \$ 8,000.00          |
| Stuckeman advisory council                                    | \$ 8,000.00          |
| Stuckeman journal   | \$ 25,000.00         |
| Stuckeman support for slideroom                               | \$ 5,000.00          |
| <b>Total</b>  | <b>\$ 510,333.00</b> |

**2013 - 2014 Incoming Funds from Stuckeman Endowments**

|   |                     |
|---|---------------------|
| Graphics manager/event coordinator                            | \$15,000.00         |
| Special projects manager                                      | \$15,000.00         |
| Lectures/exhibitions  | \$25,000.00         |
| Studio reviews  | \$10,000.00         |
| New faculty startup   |                     |
| Stuckeman Practitioner Instructor Program Endowment in Design | \$34,000.00         |
| Stuckeman Career Development Professional in Design           | \$20,000.00         |
| Professorship in Advance Design Studies                       | \$50,000.00         |
| Stuckeman department head enhancement fund                    | \$30,000.00         |
| Stuckeman department head support                             | \$10,000.00         |
| Stuckeman writer/editor                                       | \$25,000.00         |
| Stuckeman career counselor                                    | \$20,000.00         |
| Stuckeman digital coordinator                                 | \$45,000.00         |
| Stuckeman operations manager                                  | \$36,000.00         |
| Stuckeman technology support                                  | \$50,000.00         |
| Stuckeman part-time shop assistant                            | \$25,000.00         |
| Stuckeman Center for Design Computing Director                | \$40,000.00         |
| Stuckeman Administrative Manager                              | \$71,000.00         |
| Stuckeman faculty grants                                      | \$50,000.00         |
| Website development   | \$8,000.00          |
| Stuckeman advisory council                                    | \$8,000.00          |
| Stuckeman journal   | \$25,000.00         |
| Stuckeman support for slideroom                               | \$5,000.00          |
| <b>Total</b>  | <b>\$617,000.00</b> |

**Mandated Budget Reductions 2008-2012**

The Pennsylvania State University mandated 3% reduction of all permanent budgets in 2010, 2% to be returned centrally, and 1% to be retained at the College level for possible additional mid-year cuts. The Department responded to this request through staff savings resulting from the Arch/Larch merger. Through the merging of the administrative responsibilities of the two independent departments into a single Stuckeman School, the position of a retiring staff was not filled, and the salary savings constituted 2/3 of the 3% return. Another staff replacement satisfied the remaining return. In 2012/13 the 1% held at the College was utilized to satisfy the next across-the-board reduction. We have not had to address other reductions in our budget.

**Comparison of Spending Per Student with Other Schools/Departments at Penn State**

The following table shows data on annual expenditures and total capital investment per undergraduate student compared to the expenditures and investments by two other accredited professional degree programs—Architectural Engineering and Landscape Architecture—at Penn State.

**Professional\* Penn State Programs Comparison (2012-13)**

|                                       | Architectural Engineering | Architecture | Landscape Architecture |
|---------------------------------------|---------------------------|--------------|------------------------|
| General Budget (\$) **                | 2,779,866                 | 2,724,507    | 2,456,111              |
| Permanent Faculty Salaries (\$)       | 1,684,962                 | 1,628,168    | 1,509,649              |
| Number of Standing Faculty            | 16                        | 20           | 19                     |
| Number of Professional Students       | 347                       | 275          | 189                    |
| Student/faculty ratio                 | 22                        | 14           | 10                     |
| Permanent Faculty Salary/Student (\$) | 4,856                     | 5,921        | 9,907                  |
| General Budget/Student (\$)           | 8,011                     | 7,988        | 12,995                 |

\* All three are 5-year accredited professional programs

\*\*Includes faculty/staff salaries, annual allotment, temporary allocations (adjunct faculty), fringe and carry forwards

**New Professional M.Arch Program**

With the commencement of the professional M.Arch in the fall semester of 2013, total student enrollment will increase gradually in the next few years. The Department has experienced fluctuations in the size of its student body in the past. For example, a few years ago, approximately 80 freshmen were admitted for two years in a row instead of the usual 60. This created a bubble of an additional 40 students that are currently going through the program. As a part of its normal operations, the Department is well equipped to deal with these fluctuations. The additional 30-45 students in the Department from the professional M.Arch program, in terms of its general effect on the department budget, may be seen as another fluctuation. A recent assessment indicates the general operating costs related to the additional students are negligible, and can easily be absorbed in the current budget. Of course, many current and ongoing activities, such as lecture series, career fair, and reviews will occur anyway—with or without the additional students.

The cost associated with the M.Arch professional program, such as faculty lines have already been filled. Request for Additional Grant-in Aid (GIA) for new assistantships has partially been addressed. What remains are minor expenses, and the Department annual budget negotiations have enough flexibility in them to cover these costs.

Although the University follows a historical budgeting model, the College has been very receptive to initiatives from its constituent units. Since the submission of the application, we completed the budget cycle for the 2012-13 academic year, and have now had preliminary agreements for 2013-14. In both years, we have been able to continue four long term non-tenure track faculty lines bringing our full-time faculty numbers to 26 from a previous average of 23.

In addition, the generous Stuckeman Endowment, housed at the School of Architecture and Landscape Architecture, has brought seven professorships to be shared by the two departments annually. The funds for the endowment have been completely vested and during the coming academic year we have been able to bring to campus four stellar faculty to teach our architecture students with funds additional to our budget allotment. Furthermore, the Stuckeman Endowment supports a much-expanded lecture series, computing, faculty start-up grants, collaborative work, and much more.

Based on a recent departmental assessment of “increased faculty assignment” for the professional M.Arch program, a total of five additional course assignments is needed. Given that four of those are studios, and all studios are taught concurrently, the total translates into two full-time faculty (our full-time faculty teach four courses each year, two studios, two lecture/seminars). This increase has already been achieved by the additional three faculty appointments in the last two years and does not include the Stuckeman Professorships. The Department’s overall budgetary situation, including the additional 30-45 professional M.Arch students, is better than 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 would invariably enhance research and creative activity for both the students and faculty, as well as providing a cohort of advanced graduate students with diverse backgrounds with whom the undergraduate students would be able to interact and work.

**Forecasts—Five-Year Projections of Revenue and Costs**

|                  | 2011/12            | 2012/13            | 2013/14            | 2014/15            | 2015/16            | 2016/17            |
|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Fixed Budget     | \$1,965,901        | \$2,024,878        | \$2,085,624        | \$2,148,192        | \$2,212,637        | \$2,279,016        |
| Temporary Budget | \$138,965          | \$168,965          | \$198,965          | \$228,965          | \$228,965          | \$228,965          |
| <b>Total</b>     | <b>\$2,104,866</b> | <b>\$2,193,843</b> | <b>\$2,284,589</b> | <b>\$2,377,157</b> | <b>\$2,441,602</b> | <b>\$2,507,981</b> |

**1.2.4 Physical Resources**

The Stuckeman School Building was dedicated Sunday, September 18, 2005. The building, named for late donors H. Campbell “Cal” Stuckeman (’37 B.S. Architecture) and his wife, Eleanor, who contributed the \$10 million lead gift, was designed by Overland Partners Architects of San Antonio, Texas, in conjunction with WTW Architects of Pittsburgh. LaQuatra Bonci Landscape Architects, also of Pittsburgh, designed the landscaping. It is the first Penn State building designed to meet the national criteria for certification as environmentally friendly, sustainable architecture adhering to 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 five-level building, adjacent to both the Palmer Museum of Art and the Arts Building on the University Park campus, has an exterior made of recycled copper, brick and energy-conserving glazed windows with exterior sun-control louvers, which minimize glare inside. Interior sustainable features include lighting controls with automatic daylight and occupancy sensors and an HVAC system that provides natural ventilation in appropriate weather conditions. Integrated landscape and parking design filters storm water run-off to minimize pollutants. Nearly 80 percent of construction waste has been recycled.



The new 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. "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 SALA, from collaborative training between the disciplines to enhancement of environmental stewardship" said Richard DeYoung, senior principal of WTW Architects.

#### **"Environmentally Friendly" and Other Building Facts**

- 87% of the materials used were harvested within a 500-mile radius around State College
- 30 tons of copper was 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.
- 79% of the construction waste was recycled, resulting in 605 tons of recycled materials.
- The steel is composed of 94% recycled steel products—mainly cars—from Ohio Steel Company.
- 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.
- The bluestone used in the building and surrounding walls/seating is native to Pennsylvania.
- First floor rest rooms 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.
- The windows in the studios automatically open and close with changes in temperature and humidity, reducing the need for heating and cooling mechanically.
- The studios feature motion-sensor lights.
- The studios on the upper floors of the building's east side afford a 180-degree view from Bald Eagle ridge to Mount Nittany.
- The building provides high-speed connections to Penn State's computer backbone and telephone, cable television, and satellite receiving capabilities.
- There are multimedia systems in classrooms, centers, and labs as well as ports throughout the building for Internet connections.
- The building has security provisions and is accessible 24 hours for student and faculty access.

**Southern Facades**  
Perspective

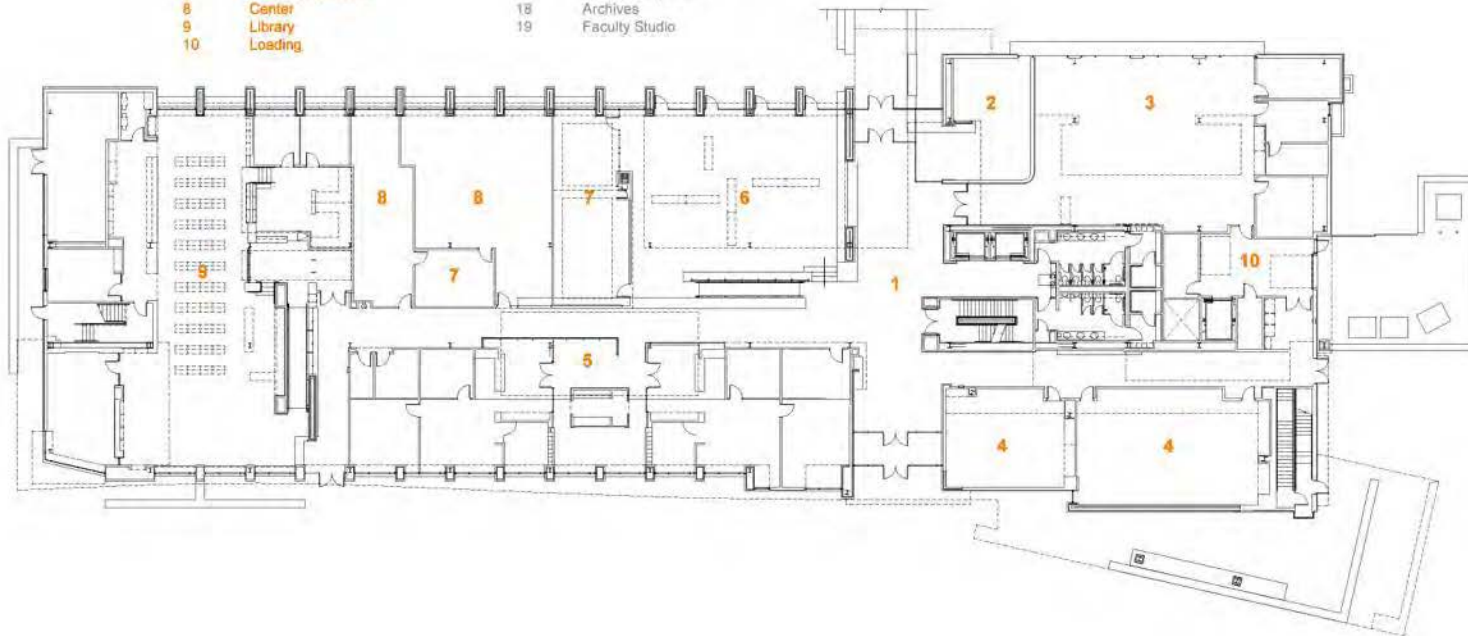
The Pennsylvania State University  
School of Architecture & Landscape Architecture



**Ground Level**  
Floor Plan

The Pennsylvania State University  
School of Architecture & Landscape Architecture

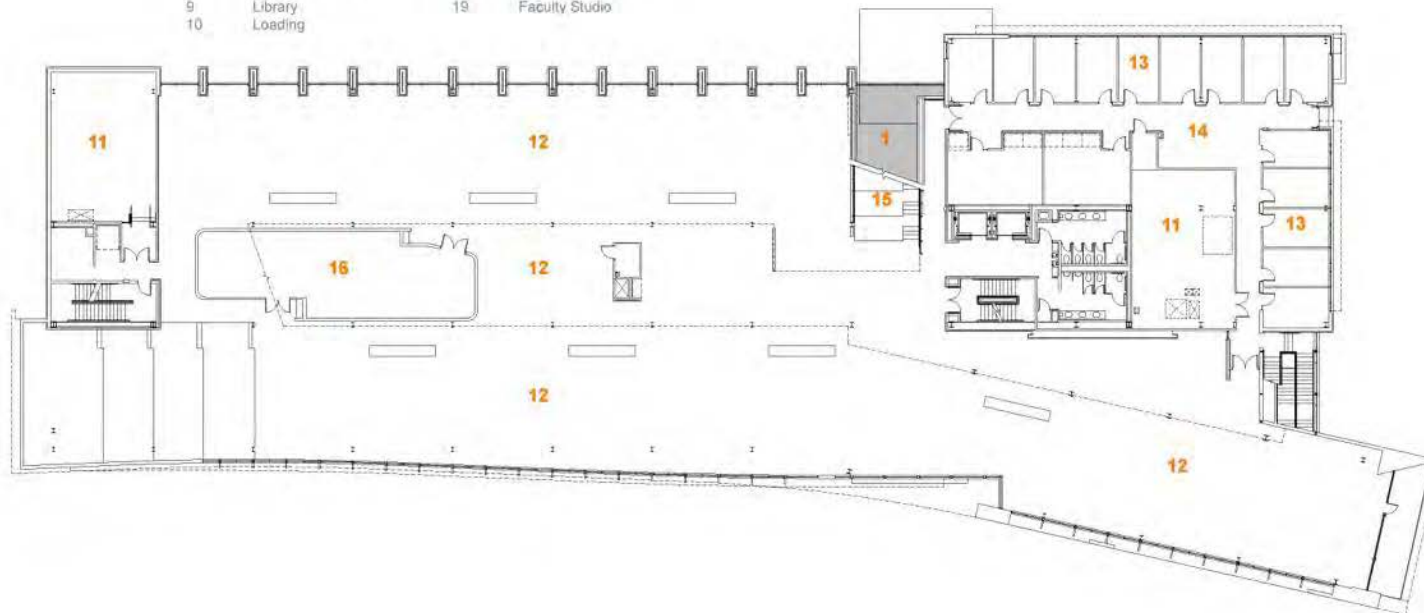
- |    |                     |    |                      |
|----|---------------------|----|----------------------|
| 1  | Lobby               | 11 | Mechanical           |
| 2  | Gallery             | 12 | Studios              |
| 3  | Computer Laboratory | 13 | Faculty Offices      |
| 4  | Computer 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             |    |                      |



**Level Two**  
Floor Plan

The Pennsylvania State University  
School of Architecture & Landscape Architecture

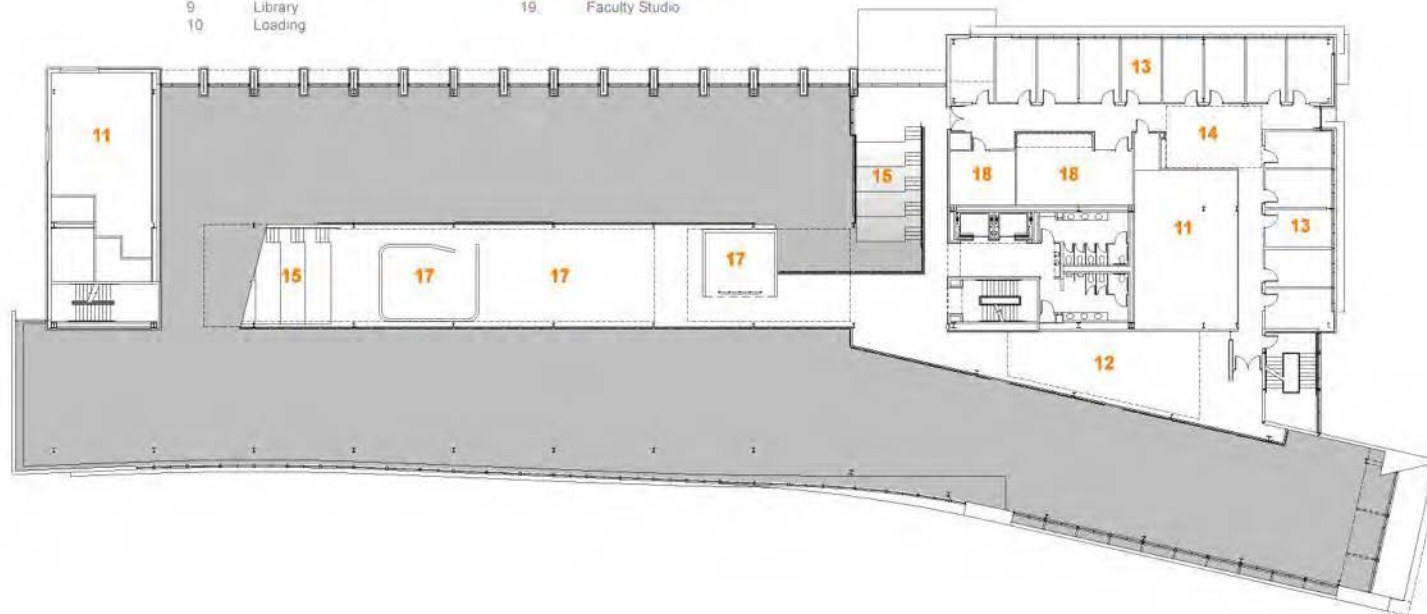
- |    |                     |    |                      |
|----|---------------------|----|----------------------|
| 1  | Lobby               | 11 | Mechanical           |
| 2  | Gallery             | 12 | Studios              |
| 3  | Computer Laboratory | 13 | Faculty Offices      |
| 4  | Computer 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             |    |                      |



**Level Three**  
Floor Plan

The Pennsylvania State University  
School of Architecture & Landscape Architecture

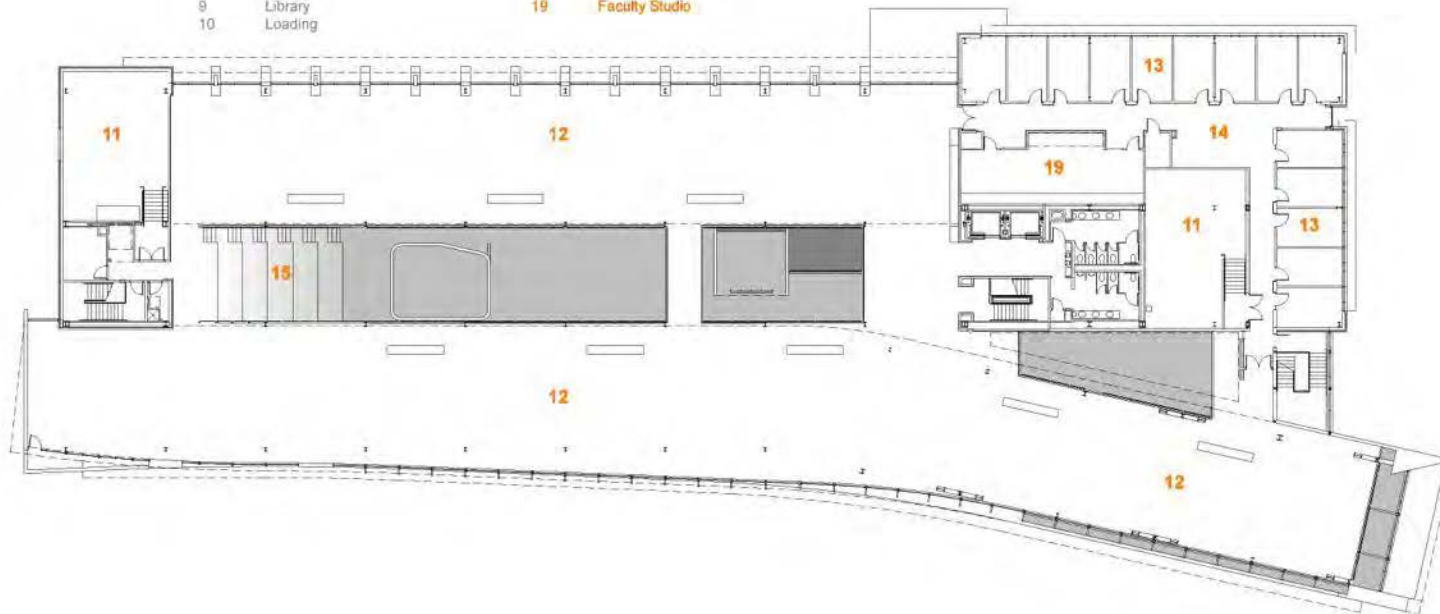
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|----|---------------------|----|----------------------|
| 1  | Lobby               | 11 | Mechanical           |
| 2  | Gallery             | 12 | Studios              |
| 3  | Computer Laboratory | 13 | Faculty Offices      |
| 4  | Computer Classrooms | 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             |    |                      |



**Level Four**  
Floor Plan

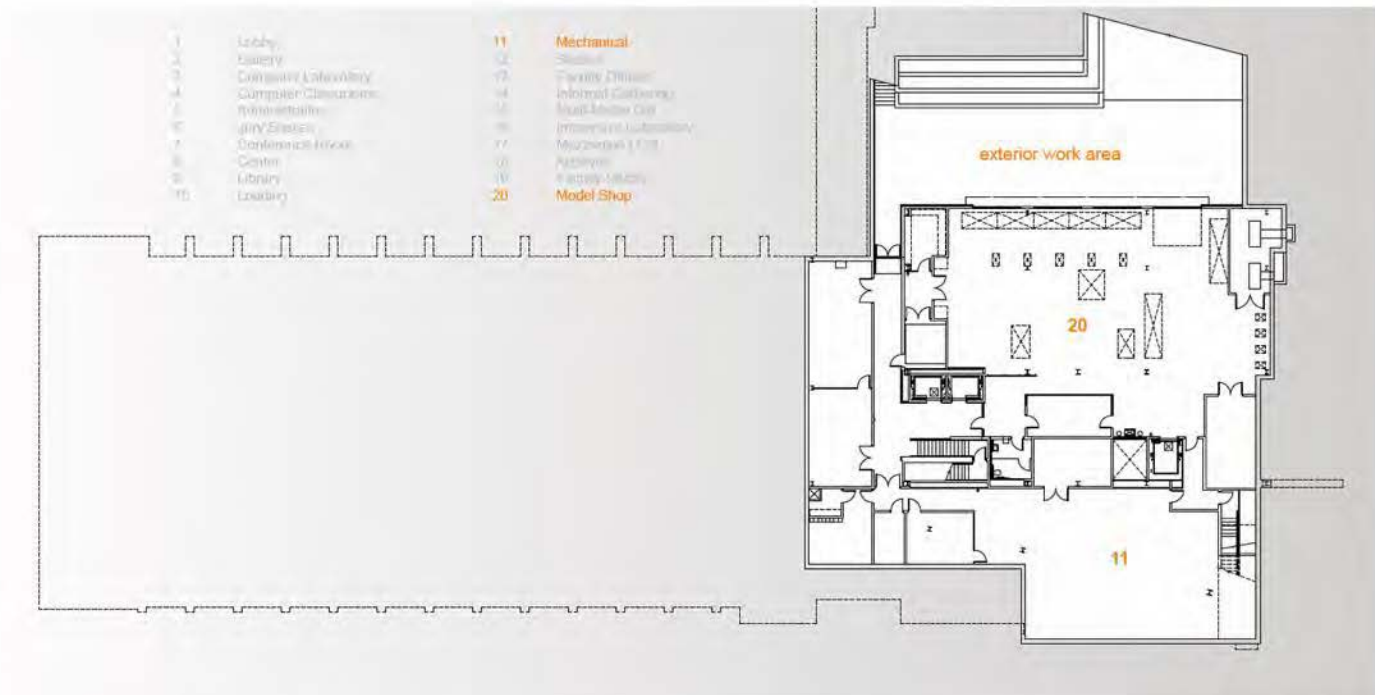
The Pennsylvania State University  
School of Architecture & Landscape Architecture

- |    |                     |    |                      |
|----|---------------------|----|----------------------|
| 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             |    |                      |



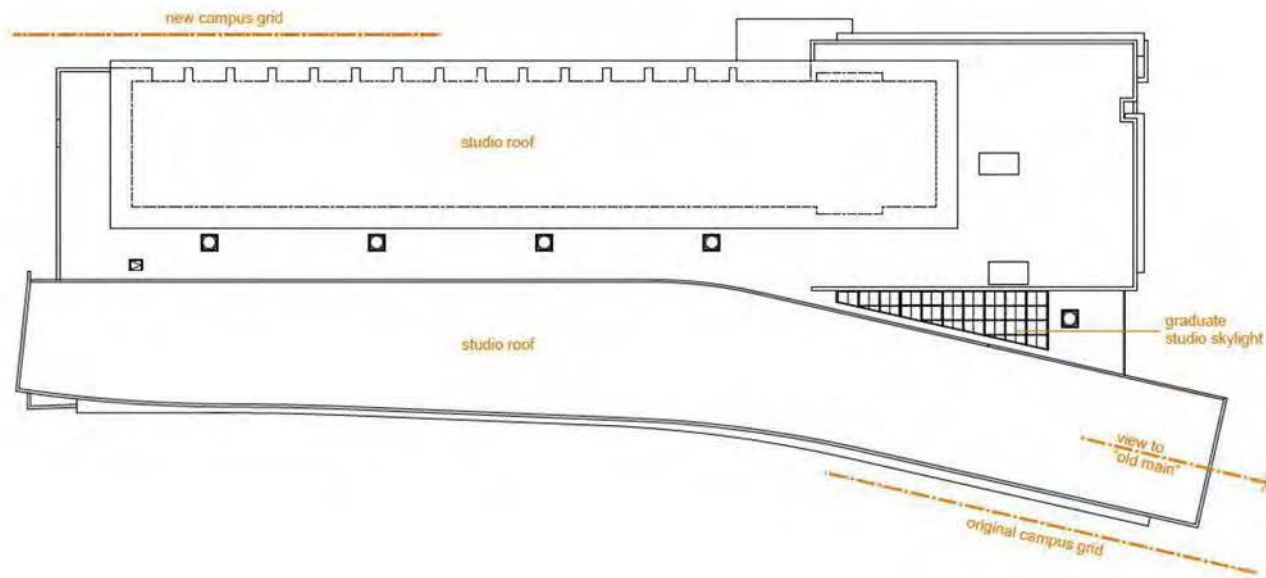
**Basement**  
Floor Plan

The Pennsylvania State University  
School of Architecture & Landscape Architecture



Roof  
Plan

The Pennsylvania State University  
School of Architecture & Landscape Architecture

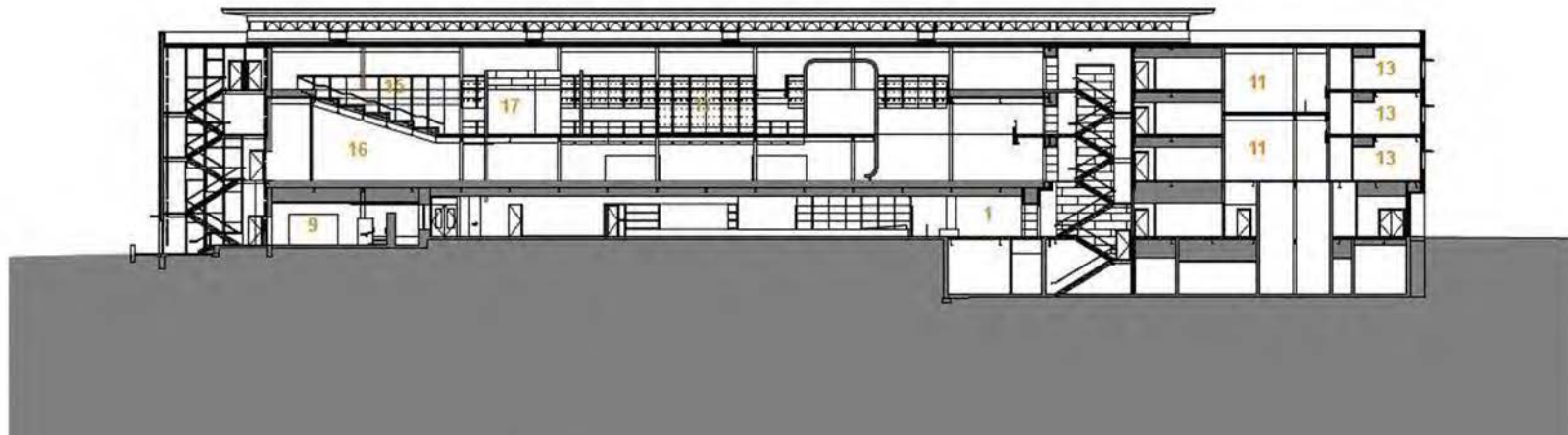




**Lobby | Mezzanine | Crit | Immersive Laboratory**  
Longitudinal Section

The Pennsylvania State University  
School of Architecture & Landscape Architecture

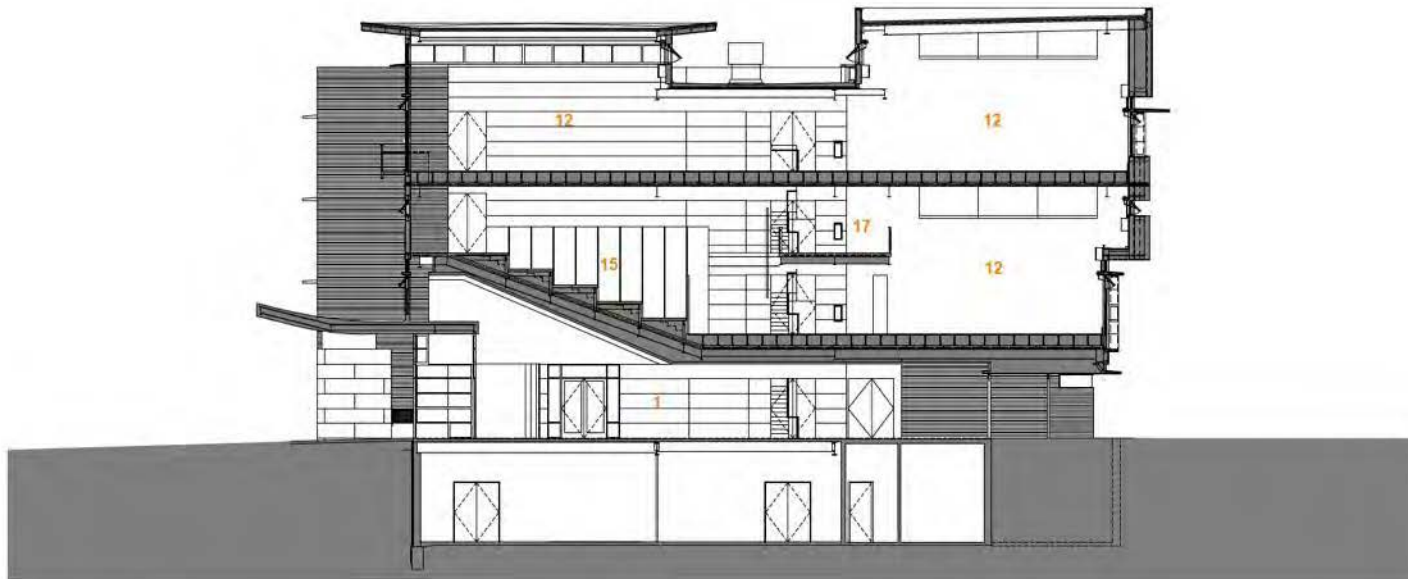
- |    |                     |    |                      |
|----|---------------------|----|----------------------|
| 1  | Lobby               | 11 | Mechanical           |
| 2  | Gallery             | 12 | Studios              |
| 3  | Computer Laboratory | 13 | Faculty Offices      |
| 4  | Computer 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 work stations organized by academic year. Individual work stations 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 utilizes University wide facilities for its large lecture classes. The SALA 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 SALA. 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, and 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 one of the full time staff members. 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 tools and power tools, as well as woodworking theory. After passing the exam and the projects, students have access to all facilities in the shop and are encouraged to use it as much as possible.

**Technology Laboratories:** The Department of Architectural Engineering plays a major role in the instructional programs of students majoring in Architecture. 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, referred to as the "wedge" for informal student discussions and gatherings occupies 1,130 sq. ft. and is located on the mezzanine.

**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 SALA. All full-time faculty have their own offices and a few visiting faculty are currently sharing space.

The administrative offices of the Department (1,277 sq. ft.), located on the first floor in the center of the building, are adjacent to the Landscape Architecture office with a common kitchen area in between. 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 of SALA.

## Computing Facilities and Resources

**Proposed Changes:** A “Digital Fabrication Master Plan” is underway. The intent of this plan is to place existing and anticipated digital fabrication equipment in its optimal location in the building. One location is a basement fabrication lab with a concentration in digital technologies. This “DigiFab Lab” will allow students and faculty in the Department of Architecture and in the College of Arts and Architecture first hand experience in using cutting-edge tools as part of their creative process. This is a substantial endeavor as it requires the installation of network ports, room ventilation, card access, and installation of an adequate and versatile electric service. The new electric service will facilitate the use of a 6-axis CNC robotic arm. With adequate utilities currently in place we are able to expand our array of equipment and capabilities to explore options, including metal machining, waterjet cutting, welding, and vacuum forming.

**The Initiative:** Students entering the second year design studio are required to purchase a laptop computer. This allows the Department to concentrate its resources on high-end technologies rather than large general computer labs. These technologies include advanced design visualization, fabrication, and large-format printing, among others. Centralized systems are also maintained for computational intensive tasks such as video production, generative modeling, rendering, and animation. The Laptop Initiative specifies that all students purchase equipment that meets the recommended performances. This provides a uniform curricular experience for the students and allows the faculty to plan instruction that takes advantage of a consistent technology.

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.

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 Initiative provides keyserved software to any student enrolled in the Architecture program without additional costs to the student. Software currently being served are:

- Adobe Creative Suite 6
  - Acrobat Pro
  - Illustrator
  - InDesign
  - Photoshop
- AutoDesSys form•Z 7 and bonsai3D 2.5
- McNeel Rhino 4 and Flamingo 2
- Autodesk Maya 2014

Previous to this year, the Initiative provided a more extensive list of software to students. However, vendors such as Autodesk are increasingly providing education versions of their software to students free of charge – reducing our need to provide the software.

Additionally, the 4<sup>th</sup> and 5<sup>th</sup> year design studios are equipped with a “computer pod” area, provided with desktop computers (4<sup>th</sup> Year: 7 iMacs - 2.8GHz (dual boot); 5<sup>th</sup> Year: 5 iMacs - 2.8GHz (dual boot), 6 iMacs - 3.1GHz (dual boot)). However, since the implementation of the laptop-computer requirement, we have been incrementally reducing the number of computers at the “pods.”

**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 SFB, the SCDC provides students with high-end hardware. There are 25 Mac Pros (6 with 24" Cinema displays, 6 with 27" Cinema displays, 3 with 30" Cinema displays, 12 with dual displays, and 1 of with a 42" Plasma screen for presentation and video collaboration), 2 iMac (with 27" displays), and 2 Dell XPS workstations (with dual displays). All workstations are equipped with memory and video cards optimized for computational intensive tasks such as video editing and rendering.

**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.

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. Digifab tools include a ZCorp ZPrinter 310Plus 3D Printer, Dimension Stratasys BST 3D Printer, Precix 9100 CNC Router, Techno LC3024 CNC Router, 2 Universal Laser Systems X-660 Laser Cutters, 2 Universal Laser Systems VLS660 Laser Cutters, Konica Minolta Vivid910 3D Digitizer, and Freeform Phantom Haptic Feedback Digital Clay Carver – each equipped with the appropriate computer workstation. They are available for our students with technical instructions and assistance from our staff members. Due to the hazardous nature of the laser cutters, students must complete a training session and an online certification before they are given access.

Because of the increase in digital fabrication technologies, infrastructural updates have been made. For example, the addition of two new laser cutters in 2012 required an upgraded ventilation system in the north end of the building. The "Digital Fabrication Master Plan" is being developed to accommodate other recent acquisitions.

**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 (33 Windows and 21 Mac), 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.

### 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

**Studio Computer Pods:**

- (12) iMac – 2.8GHz Intel i5 – 4GB RAM
- (6) iMac – 3.1GHz Intel i5 – 4GB RAM
- (1) 11x17 Scanner

**Stuckeman Center for Design Computing Lab:**

- (7) Mac Pro – 2.66GHz Quad-Core Intel Zeon – 8GB RAM
- (6) Mac Pro – 3.2GHz Quad-Core Intel Zeon – 16GB RAM
- (2) Mac Pro – 2 x 2.66GHz Quad-Core Intel Zeon – 8GB RAM
- (5) Mac Pro – 2 x 2.66GHz Quad-Core Intel Zeon – 16GB RAM
- (1) Mac Pro – 2 x 2.66 GHz Quad-Core Intel Zeon – 32GB RAM
- (2) iMac – 3.4GHz Intel i7 – 16GB RAM
- (1) iMac – 2.4GHz Intel Core 2 Duo – 2GB RAM – (scanning station)
- (1) Dell Optiplex GX620 – Pentium D 3.0GHz – 2GB RAM (scanning station)
- (1) Mac Pro – 2.8GHz – Quad-Core Intel Zeon – 6GB RAM
- (2) Mac Pro – 2.8GHz – Quad-Core Intel Zeon – 8GB RAM
- (3) Dell XPS – 3.0 GHz Quad-Core Intel – 6GB RAM
- (1) Dell Precision – Intel Core2 – 4GB RAM (dedicated to 3d scanner, Win XP)
- (1) Mac Pro – 2 x 3.0 GHz Quad-Core Intel Zeon – 5GB Ram
- (1) 11x17 Scanner
- (1) 42" Wide-Format Scanner

**Printing Resources:**

- (4) B&W HP Laser Printers
- (3) Color HP Laser Printers
- (4) 42" HP 3200 Plotters
- (3) 42" HP 6500 Plotters

**Public labs maintained by ITS in building:**

- (21) 27" iMac – 2.9GHz i7 – 8GB RAM
- (33) Dell Optiplex 790 – 3.1GHz i5 – 8GB RAM with Wacom Cintiq 12WX pen displays
- (1) 11x17 Scanner

**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 3 year life cycle

**Software available to Students and Faculty**

- Adobe Creative Suite 6 Design Standard
- Adobe Creative Suite 6 Design & Web Premium
- Adobe Creative Suite 6 Production Premium

Adobe Photoshop Lightroom 4  
Act-3D B.V. Lumion PRO Educational  
Apple Final Cut Pro X  
Apple iLife '11 Suite  
Apple iWork '09 Suite  
Apple QuickTime 7 Pro  
Artlantis Studio  
Autodesk 360 Glue  
Autodesk 3ds Max 2014  
Autodesk AutoCAD 2014  
Autodesk AutoCAD Architecture 2014  
Autodesk AutoCAD Civil 3D 2014  
Autodesk AutoCAD Map 2014  
Autodesk AutoCAD Structural Detailing 2014  
Autodesk Backburner  
Autodesk Composite 2014  
Autodesk Ecotect Analysis 2011  
Autodesk Inventor 2014  
Autodesk Inventor Fusion 2014  
Autodesk MatchMover  
Autodesk Maya 2014  
    V-Ray for Maya  
Autodesk Mudbox  
Autodesk Project Vasari 2  
Autodesk Revit 2014  
Autodesk Revit Infrastructure Design 2014  
Autodesk Robot Structural Analysis Professional 2014  
Autodesk Showcase  
Autodesk Simulation Mudflow Advisor  
Autodesk Sync  
AutoDesSys bonzai3d 3  
AutoDesSys form•Z 7  
Blender 2.68  
Camtasia Studio 8  
CorelDRAW x6  
Eagle Point Siteworks and LandCADD for Revit  
Ecogرافx, Inc. Land F/X  
Esri ArcGIS Desktop 10.2 Advanced  
Esri ArcGIS Desktop 10.2 Standard  
Esri CityEngine  
    3D Analyst  
    Spatial Analyst  
FileMaker Pro 12  
Geomagic Studio  
Greenspace Live gModeller  
Integrated Environmental Solutions IES VE  
Luxology MODO 701  
McNeel Rhinoceros 5  
    Bongo  
    Flamingo  
    Penguin  
    Rhino Terrain  
    V-Ray for Rhino

MEC Soft RhinoCAM 2012  
MEC Soft VisualMill 2012  
Microsoft Office  
Microsoft Movie Maker  
National Renewable Energy Laboratory OpenStudio  
Nemetschek VectorWorks Designer  
QSR International NVivo 10  
Trimble Sketchup Pro 2013  
Troy Nolan Peters Solar Shoebox 7  
UCLA Energy Design Tools Climate Consultant 5.2  
Unity 3D PRO (educational)  
US Department of Energy EnergyPlus 7.1

### **Digital Fabrication Equipment**

ZCorp ZPrinter 310Plus 3D Printer  
8"x10"x10" build volume  
ZPrint Software  
Dimension Stratasys BST 3D Printer  
8"x8"x10" build volume  
Catalyst Software  
Precix 9100 CNC Router  
3 axis operation  
4'x8'x10" capacity  
vacuum hold down  
Control System  
Techno LC3024 CNC Router  
3 axis operation  
30"x24"x5" capacity  
Techno Control System  
2 Universal Laser Systems X-660 Laser Cutters  
40 Watt Lasers  
18"x32" Sheet Capacity  
2 Universal Laser Systems VLS660 Laser Cutters  
60 Watt Lasers  
18"x32" Sheet Capacity  
Konica Minolta Vivid910 3D Digitizer  
PET (Polygon Editing Tool) and Geomagic Software  
Freeform Phantom Haptic Feedback Digital Clay Carver  
Freeform Modeling 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.2.5 Information Resources

Summary: The University Libraries provides for the information resources of 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 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 and uncertain economies will likely be faced, 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 University Libraries at Penn State. 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, 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 construction 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.

The Penn State University Libraries are ranked highly by the Associations of Research Libraries—10th among its 123 members, who essentially comprise the largest academic libraries in North America.<sup>1</sup> 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. Other 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-19-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. The Maps Library also contains many useful cartographic materials. The Earth and Mineral Sciences Library has supporting collections for building materials and green design. The News and Microfilms Library contains approximately 10,500 items related to architectural history.

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<sup>1</sup> Association of Research Libraries (ARL) Library Investment Index Rankings, 2010–2011.

Considering some quantities of the print-and-paper collections may help to understand the physical distribution of the collections. The ALA Library currently houses about 19,030 titles of paper books and journals (or 27,850 volumes). Roughly 12,000 of these titles (or 17,850 volumes) are in the NA classification (which essentially comprises “Architecture” narrowly defined.) In the nearby Pattee/Paterno Library complex, another 8,590 titles (or 14,190 volumes) are classed NA. These are primarily items related to architectural history before 1850. In the University Libraries remote storage facility, another 2,790 titles (or 4,080) are classed in NA. At other Penn State campuses, another 3,200 titles (or 5,000 volumes) are available in that NA category.

**Paper Library Holdings for Architecture**

|   | Classified in NA         |               | NA Plus Related Topics<br>(i.e. total in ALA Library) |               |
|---|--------------------------|---------------|---|---------------|
|   | Titles                   | Volumes       | Titles  | Volumes       |
| Architecture and Landscape Architecture Library       | 12,000                   | 17,850        | <b>19,030</b>   | <b>27,850</b> |
| Pattee/Paterno Library (mostly architectural history) | 8,590                    | 14,190        |   |               |
| Remote Storage Facilities                             | 2,790                    | 4,080         |   |               |
| Other Penn State Campuses                             | 3,200                    | 5,000         |   |               |
| System-Wide Total                                     | approx.<br><b>26,000</b> | <b>41,120</b> |   |               |

With one click any of these items may be obtained within three days. Most digital library resources are not classified by subjects and impossible to quantify. Rough quantities may be estimated using individual files as the unit of measure (usually an article). 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. These are immediately available from any location.

**Collections**

The ALA Library’s collections grow in support of the Department of Architecture’s mission. As a result priority is given to publications that exemplify quality in design, discuss design’s response to social, technological, and cultural change, and publications which 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. The Libraries’ efforts to develop collections for architecture are guided by a written collection development policy. This document lists major topics and formats to be collected and specifies their relative priority. It is developed with input from the Architecture faculty and revised periodically. The most recent revision was in July 2013 and is posted publicly at: [http://www.libraries.psu.edu/psul/colldev/architecture\\_and\\_landscape.html](http://www.libraries.psu.edu/psul/colldev/architecture_and_landscape.html)

**Collections: Books**

The collection of books is more-than-adequate to support the undergraduate program in architecture. Each year an extensive range of design, technical, professional, and history publications are purchased, primarily those in English but with occasional purchases of publications in major European languages.

Selections are also made in support of the Department of Landscape Architecture, architecture courses in the Department of Art History, and other closely related programs. Requests from faculty and students for new publications are commonplace and rarely refused. The University Libraries have recently begun a program of Demand Driven Access, which helps to target the collections to user needs. Tens of thousands of records for electronic books have been added to the library catalog and purchase of these titles is triggered by actual use by patrons. This new self-service includes thousands of architecture titles.

### **Collections: Journals**

As with nearly all academic libraries, the collection of journal subscriptions is more problematic. Monopolistic practices by some commercial journal publishers have stimulated three decades of cost increases far beyond increases in other markets (many years with averages of 10%-20%). Although these cost increases are most notable in science and technology fields, the design literature has also been affected. The University Libraries have undertaken cost-cutting journal cancellations in most of the last six years. However, four tactics have been employed to prevent journal cancellations in architecture and, contrarily, to increase the number of architecture subscriptions. 1) Between 2001 and 2003 the ALA Library was able to add a significant number of new paper subscriptions (24 titles) by shifting funds from books to journals. (Architecture and Landscape Architecture faculty were polled to help develop the list of added titles). 2) The Arts and Architecture Librarian is authorized to distribute allocations between several art and architecture disciplines and works with Arts and Humanities librarians on broader disciplinary funds. This flexibility has been used to direct journal cancellations to areas where less damage would result. 3) The University Libraries have increasingly subscribed to large e-journal "packages" and also added direct access to thousands of free e-journals and these programs have expanded the list of architecture e-journals available (to more than 240). 4) In one case, the ALA Library has cooperatively funded an expensive subscription with the Departments of Architecture and Landscape Architecture.

The Association of Architecture School Librarians have for many years selected a "Core List of Periodical Titles for a First-Degree Program in Architecture." The most recent edition was in 2009.<sup>2</sup> Penn State holds a current subscription to 49 of the 54 titles on the Core List, as well as 23 of the 40 titles on the Supplementary List. These holdings are improved from 6 years ago when the Penn State's holdings were compared to the 2002 edition of the "Core List of Periodicals...". At that time Penn State subscribed to 40 of the 47 Core journals and 12 of the 24 Supplementary titles."

### **Collections: Video**

The ALA Library houses a specialized collection of more than 300 videos and interactive media on design subjects which circulate either for classroom presentation or individual viewing. An older, but larger, collection of videos with many architectural titles is housed off campus in Media Technology Support Services and is sometimes used by members of the Architecture Department. Related video collections are held throughout the library system and all accessible to Architecture Faculty and students. The Libraries have begun licensing video for streaming and working with the University's Information Technology Services on streaming services. Streaming content for architecture is only just emerging, but Penn State is well positioned for this new format.

### **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.

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<sup>2</sup> Association of Architecture School Librarians, "The AASL Core List of Periodicals,"  
<http://www.architecturelibrarians.org/Default.aspx?pageId=1364618>

**Worldwide Building and Landscape Pictures:** This Penn-State-only database has grown to 26,800 images of major monuments in the history of architecture and landscape design. (At the time of our last self-study, this database contained 19,000 images.) Most of these are licensed from professional photographers, but approximately 4,000 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:** As of January, 2013, this new public database documents the architecture of our region with photographs and extensive cataloging (often linked to online exhibits). It has begun with more than 1,000 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.

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

**Art History Department Visual Resources Collection:** A Penn-State-only collection of 66,500 images of the history of art and architecture. (This collection contained 5,000 images at the time of our last self-study.)

**The O'Connor/Yeager Collection: Pennsylvania Prints from the Palmer Museum of Art:** 268 topographical views of 19th- and early 20th-century Pennsylvania towns (accessible worldwide)

The Libraries manage common software for the above collections that may be searched simultaneously.

## Services

The University Libraries offers a full array of library and information services. All of these are available either via the Internet, by phone, at the ALA Library, by appointment in the classroom, or, in only a few cases, exclusively at the main Pattee/Paterno Library complex. These services are too numerous to list here, but most may be browsed at these three URLs:

Services for Faculty: <http://www.libraries.psu.edu/psul/infosvcs/faculty.html>

Services for Students: <http://www.libraries.psu.edu/psul/infosvcs/undergrad.html>

Services at the ALA Library: <http://www.libraries.psu.edu/psul/architecture.html>

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. The publications of guest speakers are routinely 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 or to help with design critiques. Recently, the ALA Library served as the client for two freshman design-build projects. Library staff have often assisted faculty with development, outreach, or research endeavors. Last year a focus-group dinner was held with representatives of the four student organizations in the Stuckeman School in order to obtain student input on ALA Library planning. This

meeting had many positive outcomes and will be repeated on a regular basis. Library users are often polled about specific choices for video purchases, new library furnishings, etc.

### **Services: The Library as Place**

In keeping with a general trend in academic libraries, and with the Department of Architecture's mission to encourage collaboration and cross-fertilization, 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 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, and soon iPads)
- Additional lighting (recessed and task lighting)
- 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.

Improvements in the University Libraries' delivery services have made the ALA Library and increasingly busy pick-up point for books and the course reserves service is used for architecture-oriented courses in Art History and sometimes other departments. These services attract people from other buildings in the Arts Quadrant (including the nearby Arts & Architecture House dormitory) and help to make the first floor of the Stuckeman Building a successful center of campus traffic.

### **Services: Web Outreach**

The [ALA Library web pages](#) contain the predictable information about the library, but also have been enhanced in recent years, particularly in areas that promote outreach to the extended community.

- Pages that support the strong Stuckeman School study abroad programs, including the Pantheon Institute studio in Rome.
- Online exhibitions of the work of some of the designers (most former faculty members) important to the architecture of our region.
- An ongoing project to survey the acceptance policies of design journals (refereed, blind refereed, invitation only, etc.) intended to assist faculty (here and elsewhere) in selecting appropriate venues for publication.
- A new online list of recently received books.
- A live chat window.
- News items on Library and Stuckeman School events.

### **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. The ALA Library staff sees research skills as an important aspect of the life-long learning required of today's design professionals and the staff strives for a systematic approach to these presentations that consists of these components:

- An assignment for all 1<sup>st</sup>-year students that is designed to introduce them to library research and accompanied by a presentation orienting them to both the ALA Library and Internet resources.
- Presentations for intermediate (often 3<sup>rd</sup>-year) assignments that engage students in a more extensive research experience.
- Encouragement of one-on-one consultations with those students involved in research-intensive approaches to 4<sup>th</sup> or 5<sup>th</sup>-year projects.
- A session to introduce all new graduate students to library and Internet research.
- A one-on-one session with each graduate student with focus on their specific research project.

While each of these components have existed at various times, delivery varies with changes in teaching assignments.

### **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—closed only 10 hours each Saturday and Sunday morning. 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
- 29 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
- 20 years experience in the ALA Library
- Winner of the University Libraries Diversity Award and currently a participant in the Penn State Emerging Leaders program

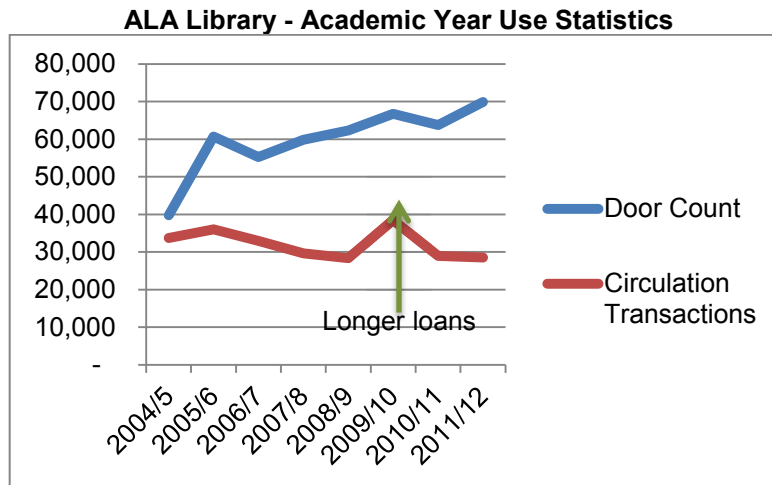
Henry Pisciotta, Arts and Architecture Librarian (Associate Librarian)

- BFA, , MA Library Science, MA Art History, coursework toward PhD Art History
- 31 years experience in architecture libraries, 13 at Penn State Information Resources and Services Support Specialist 2
- Position currently open, to be filled Fall, 2013

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). Staffing levels at the Architecture and Landscape Architecture Library have been set to compensate for this schedule, and staff members have both the skills and authority to handle most immediate needs.

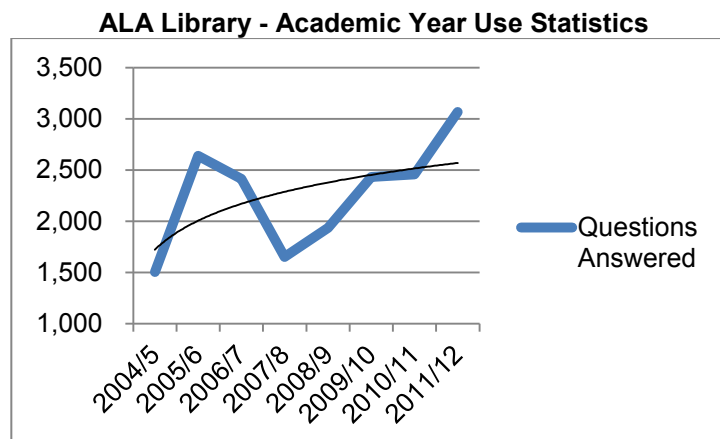
### **Assessment**

It is difficult to assess the quality of library collections and services. Our primary indicator is use—particularly in terms of trends over time.



A consistently rising trend in the library door count suggests both a need for, and some success in, emphasizing the library-as-place.

At first, the trend for paper book circulation transactions may appear to be flat or slightly declining. To some degree this is true, as an indicator that the many new digital library resources are displacing some needs for books. But the trend is also artificially depressed by a change in the loan period for books. In November 2010, the basic loan period for undergraduate students was changed from 4 weeks to one semester. This reduced the number of renewals (one of the forms of circulation transactions.) Because of this change, a trend line more similar to the one for door count, should be imagined for circulation transactions.

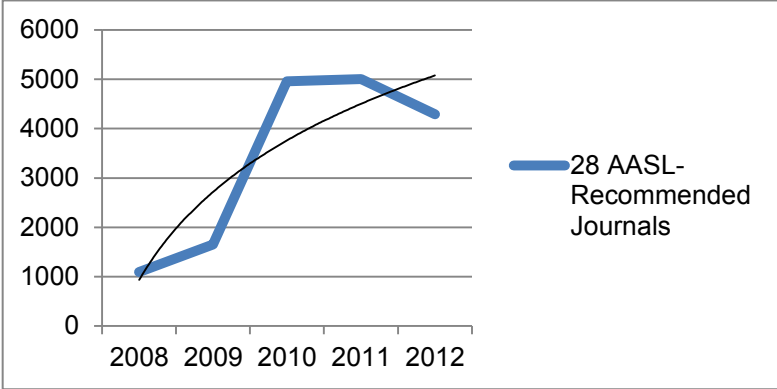


Questions addressed to the ALA Library in any form (in-person, telephone, email, or chat) trended upward both in relation to the increased door count and because of an increase in counts for email and chat inquiries.

Unfortunately, there are no effective means at present for monitoring traffic on the digital library resources for architecture. This is due to a general state of confusion as libraries work to obtain compatible statistics from the publishers and distributors of electronic information and also due to a dearth of data that can be categorized by academic disciplines. However, it has been possible to gather detailed information about the use of a meaningful sample of architectural e-journals. Standardized data are available for the e-journal versions of 28 of the 94 journals in the Association of Architecture School Librarians' "Core List of Periodical Titles for a First-Degree Program in Architecture." This data records the number of times a full

article is viewed as HTML or downloaded as a PDF. Use of this sampling of key journals has quadrupled in the past four years.

**Penn State Uses of Recommended Architecture E-Journals**  
 (Number of article views or downloads per calendar year)



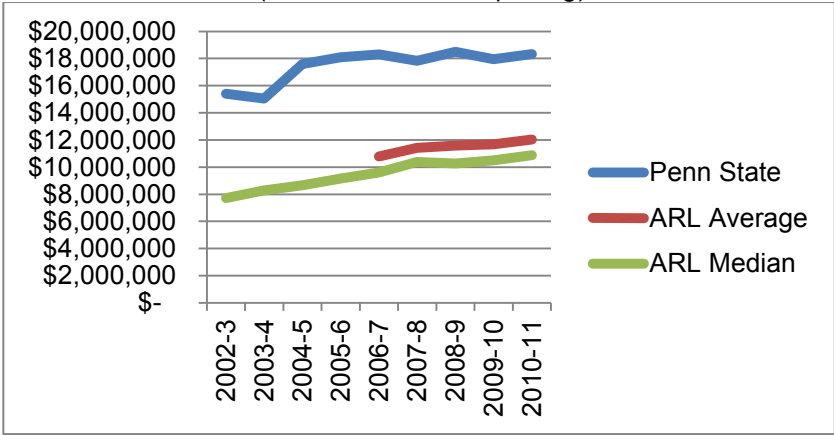
(trend line is logarithmic)

A method of tracking visits to the ALA Library web pages was developed in May 2012. Those page views have also trended upward, but meaningful analysis will not be possible until two years of data are acquired.

**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 analysis 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 materials expenditures. Penn State regularly spends well above the norms for that group of more than 100 of the largest academic libraries in North America.

**Library Materials Expenditures**  
 by Academic Members of the Association of Research Libraries  
 (113-115 libraries reporting)



Library materials expenditures at Penn State are well balanced between state funds and endowment income, ensuring more stability than experienced at many peer institutions.



The funding for library collections for architecture is best described in these three ways:

1. A portion of the funding is allocated to the Arts and Architecture Librarian and may be used to select materials in architecture, art history, graphic design, landscape architecture, and visual arts. These funds have been essentially fixed since 2004. During that time some slight decreases in state funding were offset by a new endowment. Purchasing power has decreased a bit since 2004 because of increases in prices and in the number of titles published.
2. Architectural library materials are also purchased through funds earmarked for a cooperative group of arts and humanities librarians. These group funds are spent as special needs arise (unusually expensive books, interdisciplinary sets, etc.) The Arts and Architecture Librarian is a permanent member of this group and these funds have frequently benefited the Department of Architecture. They have also been allocated at about the same amounts since 2004.
3. Another group of collections funds are controlled by the University Libraries administration in consultation with a Collections Services Advisory Group. At present the Arts and Architecture Librarian is a member of that committee. The amount of these expenditures that benefits the Department of Architecture is not possible to track and varies from year to year. The increases in library materials expenditures charted above have been necessarily dedicated to this form of centralized decision-making related to large and multi-disciplinary purchases. This is necessary because of the shift to digital resources -- e-journals and e-books cost more than their paper counterparts and, because of its size, Penn State is charged higher licensing fees than 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. This year (2013-14) the ALA Library will enjoy the extra benefit of University Libraries funding for graduate assistant to help document local architecture.

### **Challenges**

**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. This has been true for 4 years. At present, it is not difficult to select appropriate items for storage, but that might not continue indefinitely. It may be necessary to consider additional compact moveable shelving in the ALA Library. 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 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.

**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.

**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.

**Part One (I): Section 3 - Institutional and Program Characteristics**

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

**I.3.1 Statistical Reports**

**Department Student Characteristics: Student Demographics**

| <i>Department</i>                         | <i>2012</i>       |                     |                    | <i>2007</i>       |                     |                    |
|---|-------------------|---------------------|--------------------|-------------------|---------------------|--------------------|
|   | <b>Male Total</b> | <b>Female Total</b> | <b>Grand Total</b> | <b>Male Total</b> | <b>Female Total</b> | <b>Grand Total</b> |
| American Indian or Alaska Native          |                   |                     |                    |                   |                     |                    |
| Asian                                     | 2                 | 6                   | 8                  | 7                 | 10                  | 17                 |
| Native Hawaiian or other Pacific Islander | 1                 |                     | 1                  |                   | 4                   | 4                  |
| Black or African American                 | 7                 | 8                   | 15                 | 1                 |                     | 1                  |
| Hispanic/Latino                           | 25                | 12                  | 37                 | 6                 | 8                   | 14                 |
| White                                     | 81                | 99                  | 180                | 117               | 99                  | 216                |
| Two or more races                         | 2                 | 4                   | 6                  |                   |                     |                    |
| Nonresident alien                         | 4                 | 4                   | 8                  | 2                 | 5                   | 7                  |
| Race and ethnicity unknown                | 1                 | 1                   | 2                  |                   |                     |                    |
| <b>TOTAL</b>                              | <b>123</b>        | <b>134</b>          | <b>257</b>         | <b>133</b>        | <b>126</b>          | <b>259</b>         |

**University Student Characteristics: Student Demographics**

| <i>University</i>                         | <i>2012</i>       |                     |                    | <i>2007</i>       |                     |                    |
|---|-------------------|---------------------|--------------------|-------------------|---------------------|--------------------|
|   | <b>Male Total</b> | <b>Female Total</b> | <b>Grand Total</b> | <b>Male Total</b> | <b>Female Total</b> | <b>Grand Total</b> |
| American Indian or Alaska Native          | 43                | 34                  | 77                 | 34                | 35                  | 223                |
| Asian                                     | 2,000             | 1,378               | 3,378              | 1813              | 1346                | 9,915              |
| Native Hawaiian or other Pacific Islander | 26                | 19                  | 45                 | 0                 | 0                   | 90                 |
| Black or African American                 | 1,755             | 2,392               | 4,147              | 1489              | 2013                | 11,796             |
| Hispanic/Latino                           | 1,741             | 1,847               | 3,588              | 1064              | 1023                | 9,263              |
| White                                     | 25,951            | 20,379              | 46,330             | 28371             | 21891               | 142,922            |
| Two or more races                         | 675               | 708                 | 1,383              | 0                 | 0                   | 2,766              |
| Nonresident alien                         | 2,119             | 1,551               | 3,670              | 659               | 384                 | 8,383              |
| Race and ethnicity unknown                | 527               | 458                 | 985                | 0                 | 0                   | 1970               |
| <b>TOTAL</b>                              | <b>34,837</b>     | <b>28,766</b>       | <b>63,603</b>      | <b>33430</b>      | <b>26692</b>        | <b>187,328</b>     |

**Qualifications of Students Admitted to the Architecture Department**

|             |                | <b>Applications</b> | <b>Offers</b> | <b>Accepts</b> |
|-------------|----------------|---------------------|---------------|----------------|
| <b>2012</b> | Number         | 637                 | 238           | 57             |
|             | Avg. SAT score |                     | 1862          | 1709           |
|             | Avg. GPA       |                     | 3.74          | 3.62           |
| <b>2007</b> | Number         | 774                 | 276           | 60             |
|             | Avg. SAT score |                     | 1245          | 1184           |
|             | Avg. GPA       |                     | 3.74          | 3.69           |

**Qualifications of Students Admitted**

|                              | <b>2012</b> | <b>2009*</b> |
|------------------------------|-------------|--------------|
| SAT:                         |             |              |
| <i>Critical Reading</i>      |             |              |
| 25th percentile SAT score    | 530         | 530          |
| 75th percentile SAT score    | 630         | 630          |
| <i>Mathematics</i>           |             |              |
| 25th percentile SAT score    | 560         | 570          |
| 75th percentile SAT score    | 670         | 670          |
| <i>Writing</i>               |             |              |
| 25th percentile SAT score    | 530         |              |
| 75th percentile SAT score    | 640         |              |
| ACT:                         |             |              |
| 25th percentile ACT score    | 24          | 26           |
| 75th percentile ACT score    | 31          | 30           |
| Graduate Record Examination: |             |              |
| Verbal (200-800)             | 528         | 519          |
| Quantitative (200-800)       | 700         | 707          |
| Analytical (0.0-6.0)         | 4.1         | 4            |

\* Note: Figures for 2007-08 are not available for comparison

**Time to Graduation**

|   | <b>2012</b> | <b>2007</b> |
|---|-------------|-------------|
| Normal Time to Completion: (number of quarters or semesters in which students are expected to complete all requirements for the NAAB-accredited degree) | 10          | 10          |
| Percentage of students who completed in normal time   | 97.4        | 91.4        |
| Percentage of students who completed in 150% of normal time.  | 62.3        | 47.9        |

**Department Faculty Characteristics: Faculty Demographics**

| Ethnicity                                 | 2012       |              |             | 2007       |              |             |
|---|------------|--------------|-------------|------------|--------------|-------------|
|   | Male Total | Female Total | Grand Total | Male Total | Female Total | Grand Total |
| American Indian or Alaska Native          |            |              |             |            |              |             |
| Asian                                     | 2          |              | 2           | 2          |              | 2           |
| Native Hawaiian or other Pacific Islander |            |              |             |            |              |             |
| Black or African American                 | 1          |              | 1           |            |              |             |
| Hispanic/Latino                           | 1          |              | 1           |            |              |             |
| White                                     | 13         | 8            | 21          | 15         | 8            | 23          |
| Two or more races                         |            |              |             |            |              |             |
| Nonresident alien                         | 2          | 1            | 3           |            |              |             |
| Race and ethnicity unknown                | 1          | 1            | 2           |            |              |             |
| Total                                     | 20         | 10           | 30          | 17         | 8            | 25          |

**University Faculty Characteristics: Faculty Demographics**

| Ethnicity                                 | 2012       |              |             | 2007       |              |             |
|---|------------|--------------|-------------|------------|--------------|-------------|
|   | Male Total | Female Total | Grand Total | Male Total | Female Total | Grand Total |
| American Indian or Alaska Native          | 9          | 4            | 13          | 6          | 3            | 35          |
| Asian                                     | 225        | 105          | 330         | 312        | 130          | 1102        |
| Native Hawaiian or other Pacific Islander | 0          | 0            | 0           | 0          | 0            | 0*          |
| Black or African American                 | 83         | 59           | 142         | 91         | 68           | 443         |
| Hispanic/Latino                           | 58         | 69           | 127         | 53         | 60           | 367         |
| White                                     | 2135       | 1442         | 3577        | 2379       | 1367         | 10900       |
| Two or more races                         | 10         | 7            | 17          | 0          | 0            | 0*          |
| Nonresident alien                         | 188        | 109          | 297         | 0          | 0            | 0*          |
| Race and ethnicity unknown                | 137        | 78           | 215         | 7          | 6            | 443         |
| Total                                     | 2845       | 1873         | 4718        | 2848       | 1634         | 13918       |

\* The International, Native Hawaiian or Pacific Islander, and Race/Ethnicity Unknown categories were not reported on the Official EIS tables until 2010

**Department of Architecture Faculty Promoted and/or Tenured**

2012/2013

James Cooper Promoted to Associate Professor with Tenure  
 Mehrdad Hadighi Received immediate Tenure [as Full Professor]

2011/2012

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 Promoted to Associate Professor with Tenure

**Faculty Receiving Promotions**

|  | 2007-08   | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|--|---|---------|---------|---------|---------|---------|
| <b>Faculty in the accredited program</b> |   |         |         |         |         |         |
| Assistant to Associate Professor         | 1   |         |         |         | 2       | 1       |
| Associate to Full Professor              |   |         |         |         | 1       |         |
| <b>Faculty in the institution</b>        |   |         |         |         |         |         |
| Assistant to Associate Professor         | 86  | 92      | 75      | 77      | 86      | 63      |
| Associate to Full Professor              | <i>Promotion info is not in the warehouse past the date tenure is granted</i> |         |         |         |         |         |

**Faculty Receiving Tenure**

|  | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|--|---------|---------|---------|---------|---------|---------|
| <b>Faculty in the accredited program</b> | 1       |         |         |         | 2       | 1       |
| <b>Faculty in the institution</b>        | 136     | 134     | 104     | 101     | 104     | 97      |

**Faculty Maintaining Licenses in U.S. and Foreign Jurisdictions**

| <b>Name</b>          | <b>Jurisdiction</b>      |
|----------------------|--------------------------|
| Nathaniel Belcher    | PA, FL, LA, OH           |
| Daniel Cardoso Llach | Columbia                 |
| Christine Gorby      | A.R.C.U.K, R.I.B.A. (UK) |
| Mehrdad Hadighi      | NY                       |
| Jawaid Haider        | Karachi, Pakistan        |
| Rebecca Henn         | NY, PA                   |
| Robert Holland, R    | CA, FL                   |
| Lisa Iulo            | NJ, NY, PA               |
| Loukas Kalisperis    | Greece                   |
| James Kalsbeek       | OH                       |
| Darla Lindberg       | ND                       |
| Katsuhiko Muramoto   | Osaka, Japan             |
| Ute Poerschke, U     | Bavaria, Germany         |
| Dan Willis           | PA                       |
| Scott Wing           | PA                       |

### I.3.2 Annual Reports

All NAAB [Annual Reports](#) submitted by the Department of Architecture since the last accreditation visit and prior to 2013 are available on the Architecture Department website.

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.

PENNSSTATE



Rachel E. Smith  
University Budget Officer

University Budget Office  
The Pennsylvania State University  
308 Old Main  
University Park, PA 16802

814-865-7642  
Fax: 814-863-8050  
rem4@psu.edu  
www.budget.psu.edu

August 29, 2013

Ms. Andrea S. Rutledge, CAE  
Executive Director  
National Architectural Accrediting Board  
1735 New York Avenue, NW  
Washington, DC 20006

Dear Ms. Rutledge:

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 Enterprise Information System) are consistent with data sources used for reports sent to other national and regional agencies, including the National Center for Education Statistics. Minor inconsistencies may be found between the data reported to the NAAB and to the National Center for Education Statistics based on the timing of data retrieval as well as differences in data definitions.

Sincerely,

A handwritten signature in black ink that reads "Rachel E. Smith". The signature is written in a cursive, flowing style.

Rachel E. Smith  
University Budget Officer

### I.3.3 Faculty Credentials

Faculty members teaching in the Department of Architecture at Penn state have diverse backgrounds, with many who were educated at reputable universities abroad. All standing instructional faculty hold a masters degree or a PhD. The normal teaching load is one studio and one lecture/seminar course per semester or two lecture courses per semester. The architecture faculty members are involved in a wide range of research, scholarship, creative, and outreach work. Many have received significant recognition for contributions in their areas of professional and scholarly expertise. The following list represents only a sampling of awards and honors members of the architecture faculty (and staff) have received in the past few years:

#### 2012-13

James Wines 2013: Recipient of the prestigious *Lifetime Achievement Award* from Smithsonian's Cooper-Hewitt, National Design Museum.

Marcus Shaffer and Peter Aeschbacher: 2013. ACSA Creative Achievement Award.

Mehrdad Hadighi 2013: "Concrete Twist" selected by *domus* online as one of their top ten architectural stories of 2012.

Denise Costanza 2013: Visiting Scholar, American Academy in Rome.

Jawaid Haider 2013: Selected to be one of the fifty "Faces of Penn State" for 2013-14. *Faces of Penn State* showcases personal accomplishments, public contributions, and pioneering research.

Peter Aeschbacher 2013: Selected to be Schreyer Honors College Distinguished Honors Faculty Program member, 2013-2015.

Lorraine Reitz 2013: Arts & Architecture Staff Award for Outstanding Service.

#### 2011-12

Marcus Shaffer 2012: Resident Scholar, Sogang University, Seoul.

Ute Poerschke 2011: Fourth prize in national design competition for a high school (Dahlmann Schule) in Frankfurt, Germany.

Darla Lindberg 2011: Team Leader, ARCHIVE Competition Winner Global Forces + Local Factors: Design Responses to Policy Failures ACSA, *I Am A Second Responder* National Competition. Co-author with David Mosemann, Adam Longenbach, Danielle Rivera, Zachary Jones and Jing Li. Funded by National Institutes of Health/Fogarty International Center grant.

Jamie Cooper 2011: Arts and Architecture Faculty Award for Outstanding Teaching.

James Wines 2011: "Premio di Architettura ANCE," presented to an international architect by Associazione Nazionale Costruttori Edili (National Association of Builders in Italy).

#### 2010-11

Ute Poerschke 2010: Honorable mention in urban planning competition for the reorganization of the Neufinsing city center, Germany, Second prize in national design competition for a senior center in Gundelsheim, Germany, and second prize for an elementary school in Frankfurt-Riedberg, Germany (all designs published in *Wettbewerbe aktuell*).

Rebecca Henn 2010: Rackham Dissertation Fellowship, Rackham Graduate School, University of Michigan.



2009-10

Darla Lindberg 2010: Outstanding Teaching Award, College of Arts and Architecture, Penn State.

Dan Willis 2010: Dr. James Robinson Equal Opportunity Award, Penn State.

2008-09

Jawaid Haider 2009: Fulbright Expert Reviewer for architecture and planning proposals to the Fulbright Senior Scholars Program.

Peter Aeschbacher 2009: Named the University's inaugural Scholar in Residence for Public Scholarship in Penn State Learning, a unit of the University's Office of Undergraduate Education.

Jodi La Coe 2008: ACSA/AIAS New Faculty Teaching Award Recipient.

Peter Aeschbacher 2008: National Education Honor Award from the American Institute of Architects and the Association of Collegiate Schools of Architecture.

Teaching assignments are determined by each faculty member's experience, knowledge, and expertise. For more information on faculty expertise and accomplishments please refer to Matrix for Faculty Credentials in Section 1.2.1 and Faculty Resume in Supplemental Information Section 4.2.

**Part One (I): Section 4 - Policy Review**

The following documents will be placed in the on-site team room for the visiting team's review:

- Department Studio Culture Policy
- Self-Assessment Policies and Objectives
- Personnel Policies including:
  - Position descriptions for all faculty and staff
  - Rank, Tenure, & Promotion
  - Reappointment
  - EEO/AA
  - Diversity (including special hiring initiatives)
  - Faculty Development, including but not limited to, research, scholarship, creative activity, or sabbatical.
- Student-to-Faculty ratios for all components of the curriculum (i.e., studio, classroom/lecture, seminar)
- Square feet per student for space designated for studio-based learning
- Square feet per faculty member for space designated for support of all faculty activities and responsibilities
- Admissions Requirements
- Advising Policies; including policies for evaluation of students admitted from preparatory or pre-professional programs where SPC are expected to have been met in educational experiences in non- accredited programs
- Policies on use and integration of digital media in architecture curriculum
- Policies on academic integrity for students (e.g., cheating and plagiarism)
- Policies on library and information resources collection development
- A description of the information literacy program and how it is integrated with the curriculum

## **PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM**

### **Part Two (II): Section 1 -Student Performance Criteria**

The curriculum of the accredited B.Arch program endeavors to prepare students for the architectural profession by balancing coursework requiring focused technical accomplishment with a general education in the arts and humanities. The curriculum is designed to enable our students to make a short-term transition to thoughtful architectural practice and to support long-term development in the continually broadening profession of architecture. The ten semester design studio experience is central to our program, and forms the locus of the integration of practical and theoretical curricular content. The objectives of professional architectural education at Penn State are to:

- Develop students' core understanding of architectural design through the integration of architectural theory and history with technical competence in the building sciences.
- Enable students to build upon their core design knowledge through self-directed research and design focused elective coursework, and future graduate studies.
- Challenge students to become ethical and creative professionals in the practice of architecture and related design fields.
- Introduce students to international urbanism and global architectural practice by providing study abroad opportunities.
- Help students acquire critical thinking and problem-solving skills that will endure as the role of the architect changes rapidly in the future.

The ten semester studio sequence is complemented by the introduction of coursework in drawing, design computing, architectural history and theory, urbanism, construction materials and assemblies, structures, and mechanical systems. Social and cultural issues and "meaning" are introduced as factors within the design process. In addition, sustainability is addressed throughout the curriculum. In addition to these overall curricular goals and strategies, we pay special attention to satisfy the Student Performance Criteria set forth by the NAAB. The following is an account of how each criterion is addressed in the architecture curriculum:

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

|   |                          | NAAB MATRIX                               |    | STUDENT PERFORMANCE CRITERIA FOR FALL AND SPRING SEMESTERS |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|---|--------------------------|---|----|--|----|----|----|----|----|----|-----|-----|----|---|----|----|----|----|----|----|----|-----|-----|-------------------------|----|----|----|----|----|----|----|----|----|--|--|--|--|
|   |                          |   |    | A  | A  | A  | A  | A  | A  | A  | U   | U   | U  | U   | A  | A  | A  | A  | A  | U  | U  | U   | U   | U                       | U  | U  | U  | U  | U  |    |    |    |    |  |  |  |  |
|   |                          | A indicates primary evidence              |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   |                          | A indicates curricular intention          |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   |                          | * honors or honors option courses         |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   |                          | indicates 'Cause for Concern' in VTR 2008 |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   |                          | indicates Comprehensive Design criteria   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   |                          | CREDITS/COURSE                            |    | Critical Thinking and Representation                       |    |    |    |    |    |    |     |     |    | Integrated Building Practices, Technical Skills and Knowledge |    |    |    |    |    |    |    |     |     | Leadership and Practice |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   |                          | A1  | A2 | A3   | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | B1 | B2  | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12                     | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 |  |  |  |  |
| <b>FIRST YEAR: Introduction to Design</b>                   |                          |   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| FALL  | ARCH 131s                | Basic Design Studio I                     | 4  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 121                 | Visual Communications I                   | 2  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARTH 201                 | Ancient to Medieval Architecture          | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [ENGL 015 or 030]                         | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Quantification]                          | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| SPRING  | ARCH 132                 | Basic Design Studio II                    | 4  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 122                 | Visual Communications II                  | 2  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARTH 202                 | Renaissance to Modern Architecture        | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | AE 210                   | Intro. Arch. Structural Systems           | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Soc/Behavioral Science]                  | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| * GEN ED  | [Humanities]             | 3   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| <b>SECOND YEAR: Building Design in Context</b>              |                          |   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| FALL  | ARCH 231                 | Architectural Design I                    | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * ARCH 210               | Contemporary Architecture + Theory I      | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 203                 | Materials + Bldg Const I                  | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | AE 421                   | Arch Structural Systems I                 | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [CAS 100 A/B/C]                           | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| SPRING  | ARCH 232                 | Architectural Design II                   | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 204                 | Materials + Bldg Const II                 | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | AE 422                   | Arch Structural Systems II                | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Quantification]                          | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Natural Science]                         | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| <b>THIRD YEAR: Building Systems in Architectural Design</b> |                          |   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| FALL  | ARCH 331                 | Architectural Design III                  | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * ARCH 311w              | Advanced Architectural Theory             | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | AE 211                   | Intro. Env. Control Systems               | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [ENGL 202A,B,C, or D]                     | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Natural Science]                         | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| SPRING  | ARCH 332                 | Architectural Design IV                   | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | AE 424                   | Env Control Systems I                     | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * COURSE                 | [ELECTIVE]                                | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * COURSE                 | [Arch 312, 317 ART H 123, 320, 330]*      | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| GEN ED  | [Health & Phys Activity] | 1.5                                       |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| <b>FOURTH YEAR: Synthesis/Rome: Study Abroad</b>            |                          |   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| ROME  | ARCH 431A/2              | Architectural Design V/VI                 | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 499B                | Architectural Analysis                    | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 499C                | Urban Studies Topics                      | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * COURSE                 | [ELECTIVE]                                | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| UPARK   | ARCH 431/2               | Architectural Design V/VI                 | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 480                 | Technical Systems Integration             | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Soc/Behavioral Science]                  | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | [Natural Science]                         | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| * GEN ED  | [Humanities]             | 3   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| * GEN ED  | [Health & Phys Activity] | 1.5                                       |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| <b>FIFTH YEAR: Options/Design Thesis</b>                    |                          |   |    |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| FALL  | ARCH 491                 | Architectural Design VII                  | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * ARCH 451               | Arch Pro Practice                         | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * COURSE                 | [ELECTIVE]                                | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * COURSE                 | [ELECTIVE]                                | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
| SPRING  | ARCH 492                 | Architectural Design VIII                 | 6  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | ARCH 480                 | Technical Systems Integration             | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * COURSE                 | [ELECTIVE]                                | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |
|   | * GEN ED                 | (Natural Science)                         | 3  |  |    |    |    |    |    |    |     |     |    |   |    |    |    |    |    |    |    |     |     |                         |    |    |    |    |    |    |    |    |    |  |  |  |  |

ARCH 480 WAS OFFERED CONCURRENTLY WITH ARCH 492 UNTIL 2012 AND WILL NOW BE OFFERED CONCURRENTLY WITH ARCH 431/32

## Student Performance Criteria and the B.Arch. Curriculum

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

REALM A: Critical Thinking and Representation

REALM B: Integrated Building Practices, Technical Skills and Knowledge

REALM C: Leadership and Practice

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

**A.1 – Communication Skills** (“Ability to read, write, speak and listen effectively”): Students are required to take a series of general education courses that cover reading, writing, listening and speaking effectively (ENGL 015, CAS 100 and ENGL 202). The concepts covered in these courses is reinforced by the format of design critique employed throughout the studio sequence. The critique 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 the jury. In addition to the studio courses, primary courses in which this criterion is fulfilled are ARCH 311w and ARCH 492. ARCH 311w is a writing intensive architectural theory seminar that requires the students to use reading, writing, and speaking skills in direct relation to architectural content. The “w” suffix denotes that this course satisfies a university “writing intensive” course. ARCH 492 or Architectural Design VIII – Thesis 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 criteria in various ways, including thesis books that enunciate an architectural proposition or position, document the research, site, program, precedents, 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 210, 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 contemporary architecture. Next, ARCH 311w presents students with historic and contemporary theorists and encourages them to develop their own critical approach to conceptualizing architecture. Finally, in ARCH 492, 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 – Visual Communication Skills** (“Ability to use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process”): 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 121-22: Visual Communications. In ARCH 121-22, students develop orthographic drafting, sketching, perspective, collage, photography, and model making. ARCH 231-32 studios in second year provide the students with computer design and representation skills incorporated into the studio work. In subsequent studios, digital design and fabrication is presented and employed. The scale and scope continues to increase until, finally, the students graphically present a year long design thesis project succinctly to an outside jury.

**A.4 – Technical Documentation** (“Ability to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems,

and components appropriate for a building design”): Materials and Building Construction I and II (ARCH 203-04) courses introduce construction documents drawing, especially wall section studies in drawing and modeling. In ARCH 480, or Technical Systems Integration, which is offered in conjunction and close coordination with Design Thesis (ARCH 491-92) and comprehensive design, emphasizes technical documentation and specifications in relation to the proposed design thesis project. Drawings and models aim toward a comprehensive understanding of an assembly of a building.

**A.5 – Investigative Skills** (“Ability to gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes”): In the theory sequence (ARCH 210 and ARCH 311w) 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 491-92, 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.6 – Fundamental Design Skills** (“Ability to effectively use basic architectural and environmental principles in design”): First year students begin to explore basic architectural and environmental principles in design with small scale interventions to acquire skills leading to a design-build project in the spring semester (ARCH 131s, ARCH 132). The second-year studio (ARCH 231-32) introduces students to the complexity of the architectural whole with emphasis on building in context exploring program, site, circulation, accessibility, facade design, materiality, and sustainability. Students demonstrate the ability to develop a building based on consistent architectural vocabulary. Faculty also encourage coordination with building materials and construction courses offered at the second-year level. Projects have real-world sites and explore the fundamentals of the aforementioned concepts.

**A.7 – Use of Precedents** (“Ability to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding 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 121, first year students are assigned historic precedents to analyze and represent. In third year, ARCH 331, students produce their first research and design booklet including relevant architectural precedents. In ARCH 431-32, students are required to create a pre-design booklet documenting their research and precedent analysis. This type of research culminates in the thesis project and is represented in the thesis book (ARCH 491-92). Primary evidence for the Use of Precedents criterion can be found in ARCH 121 and ARCH 431.

**A.8 – Ordering Systems Skills** (“Understanding of 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 in ARCH 121: Visual Communications through introductory exercises in drawing, model making, and analysis of architectural precedent. In the fourth year Architectural Analysis (ARCH 499B), ordering systems are understood on many levels including the formal implications of existing patterns and form generating attitudes towards those contexts including: cultural, physical, economic, personal, political, and organizational.

**A.9 – Historical Traditions and Global Culture** (“Understanding of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of

indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors”): The primary evidence for Historical Traditions and Global Culture can be found in ARTH 201, Ancient to Medieval Architecture, which is essentially a survey of Prehistoric, Ancient Near Eastern Egyptian, Greek, Roman, Early Christian, Byzantine, Islamic, Early Medieval, Romanesque, and Gothic architecture. Primary evidence for this criterion can also be found in ARCH 499C, Cartography (study of Rome’s physical/historical/socio-cultural contexts and morphology); ARCH 312, Critical Postcolonial and Contemporary Perspectives in South Asian Architecture (the course addresses postcolonial and contemporary architectural perspectives in South Asia in the context of cultural globalization); and ARCH 317, Theory of Modern Japanese Architecture (transformative cross-cultural interactions in the development of modern Japanese architecture). The vast majority of the students in the Architecture Department either take ARCH 312 or ARCH 317 to fulfill this requirement in the program.

**A.10 – Cultural Diversity** (“Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects”): Art History courses (ARTH 201 and 202) position the study of architecture within diverse cultures and time periods including contexts of religion, politics, philosophy, culture and society. ARCH 312, Critical Postcolonial and Contemporary Perspectives in South Asian Architecture (the course addresses postcolonial and contemporary architectural perspectives in South Asia in the context of cultural globalization); and ARCH 317, Theory of Modern Japanese Architecture (transformative cross-cultural interactions in the development of modern Japanese architecture). Students in the Architecture Department either take ARCH 312 or ARCH 317 to fulfill this requirement in the program.

**A.11 – Applied Research** (“Understanding the role of applied research in determining function, form, and systems and their impact on human conditions and behavior”): The Technical Systems Integration course (ARCH 480) engages each student in various aspects of environmental design in conjunction with their design thesis research and Comprehensive Design project. Since Comprehensive Design has now moved to fourth year, the Technical Systems Integration course is now offered in conjunction with the fourth-year design studio (ARCH 432). This course helps the students to understand the technical environment as an immanent part of a design and to experience technical design as part of the design project. Architectural Design VIII (ARCH 492) or Design Thesis, as the capstone course, requires students to produce a thesis book documenting a year of thesis research and design.

**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”): The primary evidence is found in fifth-year Design Thesis (ARCH 491-92), 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 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 – Accessibility** (“Ability to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities”): Every studio requires that the designs produced comply with ADA requirements. In particular, the second year studio (ARCH 232) provides basic information on incorporating accessibility in the design process. In third year studios (ARCH 331-32), students are required to

complete accessibility diagrams for their projects. Working in tandem, ARCH 491, 492 and 451, students prepare accessibility diagrams for their thesis projects. Students also identify twelve local conditions of non-compliance, conduct field investigations and propose compliant solutions in ARCH 451.

**B.3 – Sustainability** (“Ability to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency”): The foundation for sustainable thinking is laid in first year studio (ARCH 131) with projects that require the reuse of salvaged materials. In ARCH 203 and 204, students are introduced to life cycle costing, embodied energy, recycled content in materials with readings and lectures on passive design strategies including solar, ventilation, evaporative cooling and wall design strategies for maximum thermal performance. Primary evidence is found in the third-year design studio (ARCH 332) and ARCH 480, Technical Systems Integration, where students gain knowledge of passive and active techniques for sustainable architecture.

**B.4 – Site Design** (“Ability to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design”): Beginning with the design-build project in first year studio (ARCH 132), 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 231-32 presents a series of site conditions to introduce a variety of contextual and topographical relationships. In third year studio (ARCH 331-32), students must represent the manipulation of contour lines. In the fifth year, choosing an appropriate and compelling site to support a desired program is an integral part of the thesis project (ARCH 491-92). Primary evidence for this criterion is found in ARCH 232 and ARCH 331.

**B.5 – Life Safety** (“Ability to apply the basic principles of life-safety systems with an emphasis on egress”): Students are introduced to Life-Safety in materials considerations, sprinkler systems, and egress codes and conditions in ARCH 203 and 204 and AE 211 and 424. In the third- and fourth-year studios (ARCH 332, 431-32), students are required to include considerations for egress code requirements. In 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 thesis project designs. Primary evidence for this criterion is found in AE 424 and ARCH 332.

**B.6 – Comprehensive Design** (“Ability to produce a comprehensive architectural project that demonstrates each student’s capacity to make design decisions across scales while integrating the following SPC: A.2. Design Thinking Skills / A.4. Technical Documentation / A.5. Investigative Skills / A.8. Ordering Systems / A.9. Historical Traditions and Global Culture / B.2. Accessibility/ B.3. Sustain-ability / B.4. Site Design / B.5. Life Safety / B.8. Environmental Systems / B.9. Structural Systems”): The capstone project of the Bachelor of Architecture curriculum is the thesis project in ARCH 491 and 492. Working in conjunction with Technical System Integration (ARCH 480), the thesis project includes all aspects of comprehensive design listed above. Evidence of this criterion will be found in the presentation drawings, the accompanying thesis book and the exercises performed for ARCH 480, which is offered concurrently with the comprehensive design studio. ARCH 480 introduces the principles of sustainability that are subsequently incorporated in each design proposal or project. Beginning in the fall semester of 2012, the fourth-year design studio or ARCH 432 focuses on comprehensive design. During this transition period, ARCH 480 was offered concurrently with both ARCH 432 and 492. Therefore, for this accreditation cycle, primary evidence required for Comprehensive Design is found in ARCH 332, 432, 480, and 492.

**B.7 – Financial Considerations** (“Understanding of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and

construction estimating with an emphasis on life-cycle cost accounting”): During the first year studio design-build projects students are required to remain within a set (usually very restricted) budget. After weeks of design pricing and reconfiguration based on cost estimates of materials, students then purchase materials and erect the final design (ARCH 132). 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 Architect’s Budgetary Estimate of existing buildings with known costs.

**B.8 – Environmental Systems** (“Understanding the principles of environmental systems’ design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools”): 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 and fire and life safety). These courses are completed in the third year, after which students are expected to take into consideration the interdependence of building form, massing, technical and wall systems (ARCH 331-32). ARCH 480 also integrates environmental control systems into the thesis studio projects (ARCH 491-92) and now the fourth-year studio (ARCH 431-32).

**B.9 – Structural Systems** (“Understanding of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems”): Students are required to take three structures courses: AE 210, AE 421 and AE 422. The first is a general and conceptual introduction to structures. The other two focus on structures related to materials and systems of materials. AE 421 deals with wood and steel, while AE 422 focuses on masonry and reinforced concrete. The structures sequence begins in the first year and is complete by the end of second year. Therefore, students are able to begin to incorporate appropriate structural systems in the third year studio design project and thereafter. The purpose of the Technical Systems Integration course, ARCH 480, is to address and clarify structural and other systems in Comprehensive Design Projects.

**B.10 – Building Envelope Systems** (“Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources”): Materials and Building Construction I and II (ARCH 203-04) introduce materials and assemblies, while the AE 211 and 424 sequence examines the building envelope calculations and considerations for optimal envelope performance. In the third year studio and thereafter students are able to incorporate this knowledge into their design work. Again, ARCH 480 works in conjunction with Comprehensive Design to effectively help students design the systems appropriate to each project.

**B.11 – Building Service Systems** (“Understanding of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems”): Building Service systems are covered in AE 211 and 424. Third year studio (ARCH 331) develops an understanding of vertical transportation. All systems are presented to students and integrated into Comprehensive Design studio through ARCH 480 or the Technical Systems Integration course.

**B.12 – Building Materials and Assemblies** (“Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse”): Primary evidence for this criterion is found in two foundation courses, Materials and Building Construction I & II, or ARCH 203-04, 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 203-04. Students are able to incorporate knowledge of Building Materials and Assemblies into their design projects in subsequent studios, especially through ARCH 480 in fourth year.

**C.1 – Collaboration** (“Ability to work in collaboration with others and in multidisciplinary teams to successfully complete design projects”): Students work in teams at various points throughout the curriculum. The first year design-build project (ARCH 132) requires students to work in teams to accomplish the design and construction of a small scale project. There are several collaborative projects in ARCH 203-04 that include sketching, documentation, and masonry exercises. Students in ARCH 431 and 432 work collaboratively to accomplish an exhaustive pre-design research phase of a comprehensive design project. ARCH 451 or Architectural Professional Practice requires students to engage in group work to prepare and present research papers.

**C.2. – Human Behavior** (“Understanding of the relationship between human behavior, the natural environment and the design of the built environment”): Architectural design studios from first through fifth year inherently explore the relationship between architecture and human behavior in every project. Fifth year studio projects (ARCH 491 and 492) invariably delve into the relationship between architecture and a specific demographic or user. More specifically, ARCH 210 introduces some of the ways in which theoretical writings have framed architecture’s complex and changing relationship to human needs. ARTH 201 and 202 further compliment the introductory theory courses with contextual material on religious, political, philosophical, cultural, economical, gender, social, and technological information. Once again, the Rome courses (ARCH 431/32A, 499B and C) focus on a specific context for human behavior in depth. ARCH 311W presents contemporary architectural and planning theoretical texts that have shaped how architectural discourse and design is influenced and adjusted according to the individual’s and society’s relationship to the physical environment. Primary evidence for Human Behavior can be found in ARCH 210, 311w, and 499C (Urban Studies Topics offered in Rome).

**C.3. – Client Role in Architecture** (“Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains”): The third-year studio Architecture Design III (ARCH 331) investigates 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 and architect 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 clients. 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.

**C.4 – Project Management** (“Understanding of the methods for competing for commissions, selecting consultants and assembling teams, 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.

**C.5 – Practice Management** (“Understanding of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice”): 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.

**C.6 – Leadership** (“Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities”): In the third-year studios, ARCH 331-32, students address design and urban issues and meet with city officials and community leaders. This experience gives students a chance to see the processes behind the building projects. In ARCH 451, lecture modules explore the changing roles, relationships, and responsibilities of clients, the building trades, contractors, construction managers, designers, technical consultants, interior designers, and architects. Emphasis is placed on the need for the architect to play a leadership role not only in the design and construction process, but also in shaping communities and preserving the environment. Additionally, student teams present research papers to the class on: Sustainability and Architecture and The Architects’ Role in Politics and Community Affairs.

**C.7 – Legal Responsibilities** (“Understanding of the architect’s responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws”): The architect’s legal responsibilities are discussed in relation to course materials in ARCH 203-204 and AE 421-422 and 424. In fourth year studio, the relationship, including the legal relationship, between the architect, consultants, client, and city are also elucidated. 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.

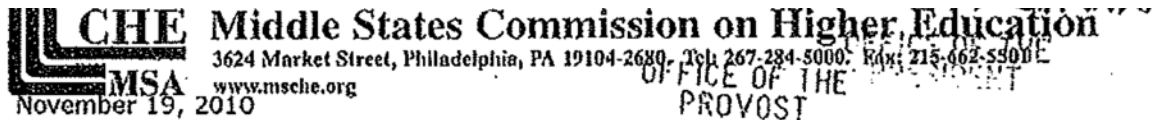
**C.8 – Ethics and Professional Judgment** (“Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice”): Ethics in architecture is discussed in ARCH 311w to provide a general historical 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.

**C.9 – Community and Social Responsibility** (“Understanding of the architect’s responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors”): The Professional Practice course requires to demonstrate understanding of the architect’s civic responsibilities through course work that includes presentations, readings, discussions and case studies. Primary evidence for this criterion is found in the third year studio, Architectural Design III (ARCH 331), which emphasizes community and civic engagement and students hold community meetings where they are required to connect with the community. The students are encouraged to ask questions related to community dynamics, and social and behavioral aspects of the users, among other relevant topics.

**Part Two (II): Section 2 - Curricular Framework**  
**II.2.1 Regional 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 reaffirmed on November 15, 2012. The next monitoring report is due November 1, 2013, the self-study evaluation 2014-15, and the next Periodic Review Report is due 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 page.



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Dr. Graham B. Spanier  
President  
The Pennsylvania State University  
201 Old Main Building  
University Park  
University Park, PA 16802

Dear Dr. Spanier:

At its session on November 18, 2010, the Middle States Commission on Higher Education acted:

To accept the Periodic Review Report and to reaffirm accreditation. To request a progress report due by April 1, 2012 documenting evidence of further progress in: (1) the establishment of learning goals at the program level in all programs; and (2) the use of appropriate assessment of the attainment of learning goals at the program level, including use of direct measures of the assessment of student learning and evidence that assessment results are used to improve teaching and learning (Standard 14). The next evaluation visit is scheduled for 2014-2015.

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](http://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.

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. Luis G. Pedraja, Vice President.

Sincerely,

Michael F. Middaugh, Ed.D.  
Chair

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.

## II.2.2 Professional Degree and Curriculum

### NAAB-Accredited Degree Offered

The Department of Architecture at The Pennsylvania State University offers the following NAAB-Accredited first professional degree program:

**Bachelor of Architecture:** 5-year Undergraduate Architecture Program (162 credit hours)

### Outline of B.Arch Curriculum

The Architecture Department at Penn State University offers an accredited five-year professional Bachelor of Architecture degree program. In addition, the Department offers a four-year pre-professional Bachelor of Science degree program and a post-professional Master of Architecture degree program. An integrated program leading to both the Bachelor of Architecture and Master of Architecture degrees is available to a limited number of academically superior students.

The architecture curriculum is composed of General Education coursework, which ensures that all students acquire a broad, liberal educational background; coursework in architecture and related disciplines, which ensures that students develop the skills and knowledge fundamental to the profession; and supporting coursework, which gives students an opportunity to enhance their educational experiences by selecting courses which best meet their individual educational needs.

The architecture program at Penn State is characterized by the centrality of the design studio and the critical role design plays in shaping the built environment. The overall curriculum embodies intellectual and operational abilities that would enable students to assume future leadership positions in an increasingly changing, culturally diverse, and globalizing world with a rapidly growing knowledge base. The first year studio is essentially an **introduction to architectural design** with an emphasis on conceptual development, the design process, and the quality of design products and presentations. Ideas about making, craft, materials, construction, and detailing, as well as environmental responsibility, are an integral part of the studio. Courses in visual communications, structures, architectural history, writing, and social sciences complement and enhance the first year curriculum. The culminating design-build project in first year fosters the spirit of group work and collaboration in design studio.

The second-year studio underscores the importance of **building in context** via the design of small to medium scale architectural interventions introducing students to issues of composition, precedents, program, materials, appreciation of site, conceptual design, and to an awareness of the different technical systems at play in buildings. The curriculum bridges the architectural design principles taught in the first year and the ability to put together a building, which is the focus of the third-year studio. The studio projects are coordinated with materials and construction and structures courses offered in the second year that afford an understanding of how technical systems can inform architectural design. The first theory course in second-year introduces architectural and urban theory by presenting and exploring key concepts through major texts from the Western tradition.

Through a semester-long project the third-year studio introduces comprehensive design by developing a deeper understanding of **building systems in architectural design** via complex, multi-functional buildings that allow students to consider all major aspects of the design and building process. Context is considered to be a design modifier and determinant—not only physical context, but also the historical, cultural, political, economic and morphological contexts are judiciously examined. Due attention is given to issues of community and social responsibility, as well as the architect's role in the stewardship and sustainability of the overall environment. The studio focuses on the design synthesis of a multitude of aspects, including architectural

precedents, thorough site analysis, and the integration of structural, environmental, and material systems. Support courses at the third-year level include advanced architectural theory, environmental control systems, and electives.

Reinforcing the emphasis placed on the comprehensive nature of design in the third-year, the fourth-year studio accentuates **synthesis** in architecture—stressing the integration of abstract and material elements of design into a coherent schema. The projects are required to demonstrate an understanding of the comprehensive nature of the design-decision-making process. The technical systems integration course is closely coordinated with the studio project to afford incorporation of building systems and comprehensive design criteria. The collaborative nature of architectural design is emphasized, as students cooperate and collaborate in research and design. All fourth year students are required to participate in the Rome program and spend one semester abroad. The fourth-year design studio in Rome explores urban planning and architectural design in an urban context. The Rome program offers a comparative study of architectural elements and building types through on-site drawing, recording, measurement, sketching and decomposition activity, and a presentation of the history of Rome through the medium of maps and walking tours of the city.

The fifth-year **options/design thesis** studio fosters the spirit of in-depth design inquiry and research by utilizing a thesis to link architectural theory and building in a meaningful manner. The students work on a self-initiated design project for the entire year (two semesters). In the second semester, the thesis continues to be the framing principle and the emphasis steadily shifts toward building design development or a “thoroughly considered building design project.” Offered concurrently with the fall semester design thesis studio, the professional practice course explores changing roles of architects through history and provides a detailed examination of current architectural practice and relationship to clients, builders and society. The students are also free to choose elective courses to delve into areas critical to their thesis investigation or personal interest. The option to design thesis presently available to fifth-year students in the second semester is the Interdisciplinary Collaborative Building Information Modeling (BIM) Studio, an initiative of the Stuckeman School for Architecture and Landscape Architecture and the Department of Architectural Engineering. Because the fifth-year will not focus on comprehensive design in the future, which has been moved to fourth year, students will no longer take the technical systems integration course. This change will allow them to take another course related to their thesis or design research. Currently in a state of transition, the fifth-year **options/design thesis** studio will eventually allow more flexibility and options to students in the future.

The five-year professional degree program requires a minimum of 162 credits. The minimum number of credits per semester for Penn State students to maintain full-time status is 12. Strictly speaking, this is the “minimum number of semester credit hours.” Students with advance placement credits or students who take courses in the summer could take fewer credits per semester than recommended, but still graduate within five years. The tables below shows the recommended course sequence that will lead to graduation in five years (10 semesters), in addition to general credit information about the studio, theory, and technology sequences in addition to general education requirements.

#### Minimum Credits per Semester

|                                  |      |
|----------------------------------|------|
| Semester 1—Fall                  | 15   |
| Semester 2—Spring                | 18   |
| Semester 3—Fall                  | 18   |
| Semester 4—Spring                | 18   |
| Semester 5—Fall                  | 18   |
| Semester 6—Spring                | 16.5 |
| Semester 7—If at University Park | 16.5 |

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|  |         |
|--|---------|
| Semester 8—If on Education Abroad                | 15      |
| Semester 9—Fall                                  | 15      |
| Semester 10—Spring                               | 12      |
| <br>Bachelor of Architecture degree credit total | <br>162 |

**Professional Content Categories**

|  |              |
|--|--------------|
| Studio sequence  |              |
| ARCH 131S: Basic Design Studio I                         | 4            |
| ARCH 132: Basic Design Studio II                         | 4            |
| ARCH 231: Architectural Design I                         | 6            |
| ARCH 232: Architectural Design II                        | 6            |
| ARCH 331: Architectural Design III                       | 6            |
| ARCH 332: Architectural Design IV                        | 6            |
| ARCH 431 or 432: Architectural Design V                  | 6            |
| Arch 431/32A: Architectural Design VI [Rome]             | 6            |
| ARCH 491: Architectural Design VII                       | 6            |
| ARCH 492: Architectural Design VIII                      | 6            |
| Visual Communications                                    |              |
| ARCH 121: Visual Communications I                        | 2            |
| ARCH 122: Visual Communications II                       | 2            |
| Theory sequence  |              |
| ARCH 210: Contemporary Design and Planning Theory I      | 3            |
| ARCH 311W: Architectural and Planning Theories           | 3            |
| ARCH 499B: Architectural Analysis [Rome]                 | 3            |
| ARCH 312: Crit. Postcolonial Pers. In South Asian Arch/  |              |
| ARCH 317: Theory of Mod. Japanese Architecture           | 3            |
| Materials and Construction sequence                      |              |
| ARCH 203: Materials and Building Construction I          | 3            |
| ARCH 204: Materials and Building Construction II         | 3            |
| Professional Practice                                    |              |
| ARCH 451: Architectural Professional Practice            | 3            |
| Structures and Systems                                   |              |
| AE 210: Introduction to Architectural Structural Systems | 3            |
| 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 480: Technical Systems Integration                  | 3            |
| Architectural History                                    |              |
| ARTH 201: Ancient to Medieval Architecture               | 3            |
| ARTH 202: Renaissance to Modern Architecture             | 3            |
| ARCH 499C: Urban Studies Topics [Rome]                   | 3            |
| <br>B.Arch Total Required Courses                        | <br>108 min. |

**Required Courses for General Education**

|  |    |
|--|----|
| Quantification                           | 6  |
| ENGL 15/30: Rhetoric and Composition     | 3  |
| ENGL 202: Effective Writing              | 3  |
| CAS 100 Effective Speech                 | 3  |
| Humanities                               | 6  |
| Natural Sciences                         | 9  |
| Health & Physical Activity               | 3  |
| Social & Behavioral Sciences             | 6  |
| Arts (ART H 201 and ART H 202 required)  | 6  |
| <br>                                     |    |
| General Education Total Required Courses | 45 |

**Off-Campus Program**

The Department of Architecture has an Education Abroad Program in Rome, Italy. Students are housed in Rome for one complete semester during their fourth year of study. The courses listed below are required for the B.Arch program and taken while students are abroad:

|   |   |
|---|---|
| ARCH 431/32A: Architectural Design VI [Rome]  | 6 |
| ARCH 499B: Architectural Analysis [Rome]      | 3 |
| ARCH 499C: Urban Studies Topics [Rome]        | 3 |
| Also available as elective course in Rome is: |   |
| It 297: Italian Language                      | 3 |

The Architecture Department allows as much flexibility as possible in the overall course sequence or academic plan. A suggested academic plan for students who recently entered the program is as follows:



The Pennsylvania State University, Bachelor of Architecture (BARCH) Program  
 Recommended Academic Plan for Program Year 2011 (Effective SU11)

| Semester 1   | Credits  | Semester 2   | Credits  |
|--|----------|--|----------|
| <b>ARCH 131S Basic Design Studio I</b>   | <b>4</b> | <b>ARCH 132 Basic Design Studio II</b>   | <b>4</b> |
| <b>ARCH 121 Visual Communications I</b>  | <b>2</b> | <b>ARCH 122 Visual Communications II</b>   | <b>2</b> |
| <b>ART H 201 (GA;IL) Ancient to Medieval Architecture</b>                          | <b>3</b> | <b>ART H 202 (GA;US;IL) Renaissance to Modern Architecture</b>                         | <b>3</b> |
| Quantification (GQ)  | 3        | <b>A E 210 Introduction to Architectural Structural Systems</b>                        | <b>3</b> |
| ENGL 015 or ENGL 030 (GWS) Rhetoric and Composition or Honors Freshman Composition | 3        | Social and Behavioral Sciences (GS)  | 3        |
|  |          | Humanities (GH)  | 3        |
| Total Credits:   | 15       | Total Credits:   | 18       |
| Semester 3   | Credits  | Semester 4   | Credits  |
| <b>ARCH 231 Architectural Design I</b>   | <b>6</b> | <b>ARCH 232 Architectural Design II</b>  | <b>6</b> |
| <b>ARCH 203 Materials and Building Construction I</b>                              | <b>3</b> | <b>ARCH 204 Materials and Building Construction II</b>                                 | <b>3</b> |
| <b>ARCH 210 Contemporary Design and Planning Theories</b>                          | <b>3</b> | <b>A E 422 Architectural Structural Systems II</b>                                     | <b>3</b> |
| <b>A E 421 Architectural Structural Systems I</b>                                  | <b>3</b> | Quantification (GQ)  | 3        |
| CAS 100A, B, or C (GWS) Effective Speech   | 3        | Natural Sciences (GN)  | 3        |
| Total Credits:   | 18       | Total Credits:   | 18       |
| Semester 5   | Credits  | Semester 6   | Credits  |
| <b>ARCH 331 Architectural Design III</b>   | <b>6</b> | <b>ARCH 332 Architectural Design IV</b>  | <b>6</b> |
| <b>ARCH 311W Architectural and Planning Theories</b>                               | <b>3</b> | <b>Non-Western Traditions in Architecture (Selected from Approved Department List)</b> | <b>3</b> |
| <b>A E 211 Introduction to Environmental Control Systems</b>                       | <b>3</b> | <b>A E 424 Environmental Control Systems I</b>   | <b>3</b> |
| English 202A, B, C, or D (GWS) Effective Writing                                   | 3        | <b>Supporting Course</b>   | <b>3</b> |
| Natural Sciences (GN)  | 3        | Health and Physical Activity (GHA)   | 1.5      |
| Total Credits:   | 18       | Total Credits:   | 16.5     |
| Semester 7 – Assuming UP Enrollment  | Credits  | Semester 8 – Assuming Rome Enrollment  | Credits  |
| <b>ARCH 431 Architectural Design V</b>   | <b>6</b> | <b>ARCH 432A Architectural Design VI</b>   | <b>6</b> |
| Humanities (GH)  | 3        | <b>ARCH 499B Architectural Analysis</b>  | <b>3</b> |
| Natural Sciences (GN)  | 3        | <b>ARCH 499C Urban Studies Topics</b>  | <b>3</b> |
| Social and Behavioral Sciences (GS)  | 3        | <b>Supporting Course</b>   | <b>3</b> |
| Health and Physical Activity (GHA)   | 1.5      |  |          |
| Total Credits:   | 16.5     | Total Credits:   | 15       |
| Semester 9   | Credits  | Semester 10  | Credits  |
| <b>ARCH 491 Architectural Design VII</b>   | <b>6</b> | <b>ARCH 492 Architectural Design VIII</b>  | <b>6</b> |
| <b>ARCH 451 Architectural Professional Practice</b>                                | <b>3</b> | <b>ARCH 480 Technical Systems Integration</b>  | <b>3</b> |
| <b>Supporting Course</b>   | <b>3</b> | <b>Supporting Course</b>   | <b>3</b> |
| <b>Supporting Course</b>   | <b>3</b> |  |          |
| Total Credits:   | 15       | Total Credits:   | 12       |

- **Bold type** indicates the courses that require a quality grade of C or better.

- ***Bold italics*** indicates the courses that require a quality grade of C or better and which satisfy both Major and General Education Requirements

#### General Education Requirements

- GWS (General Writing/Speaking), GQ, (General Quantification), GHA (General Health & Physical Activity), GN (General Natural Sciences), GA (General Arts), GH (General Humanities), and GS (General Social and Behavioral Sciences) are the codes used to identify courses that satisfy the University's General Education requirements

#### Cultures Requirements.

- US and IL are the codes used to identify courses that satisfy the University's United States and International Cultures requirements

#### Other Requirements

- S is a code used to identify courses that satisfy the University's First-Year Seminar requirement.
- W is the code used to identify courses that satisfy the University's Writing Across the Curriculum requirement.

### **Scheduling patterns for courses not taught each semester**

With the exception of ARCH 311W, ARCH 499B, and ARCH 499C, which are taught both fall and spring semesters, all of the prescribed ARCH, A E, and ART H courses required in the B.Arch program are offered only once each year. In the fourth year of the program, all students are required to spend one semester in Rome, Italy. Students may choose to go to Rome in either the fall or the spring semester. The design studio sequence during the fourth year will consist of ARCH 431 (UP) and ARCH 432A (Rome); or ARCH 431A (Rome) and ARCH 432 (UP).

### **Program Notes**

The Bachelor of Architecture (BARCH) program, which is a direct admission major, is offered only at the University Park campus.

A ten-semester sequence of design studio coursework is the central component of the program and it is this sequence that determines the length of time required to complete all requirements in the program. Because each design studio course is offered only once each year, a minimum of five academic years will be required to complete this sequence.

A portfolio review is required for change of major consideration. Please refer to the Department's web site for additional information.

### **Academic Advising Notes**

Students are advised to note all prerequisites and concurrent course requirements as noted in the Registrar's Schedule of Courses. The link to prerequisites can be found on the Architecture Program web page.

In order to take A E 210 (Introduction to Architectural Structural Systems), students must be proficient in MATH 22 (College Algebra II and Analytic Geometry) and MATH 26 (Plane Trigonometry). Satisfactory performance on the mathematics proficiency examination or completion of appropriate mathematics coursework will be necessary in order for students to be able to schedule A E 210 in semester 2 of the recommended academic plan.

Students must select 3 credits of Non-Western traditions in architecture coursework from the following approved list of courses: ARCH 312, ARCH 317, ART H 120, ART H 320, ART H 330, or ART H 340. Other courses meeting the NAAB requirement for Historical Traditions and Global Culture may be approved by petition. Although this requirement appears in semester 6 of the recommended academic plan, students may schedule this course when it is most convenient for them to do so.

ARCH 311W may be taken in either semester 5 or semester 6. Because this is a writing-intensive course, the Department cannot accommodate all third-year B.Arch students in only one semester.

CAS 100 (Communication Arts and Sciences: Effective Speech) is a particularly useful course for all architecture students and may be scheduled earlier than the sophomore year.

Although the recommended academic plan lists specific semesters for the General Education coursework, in most instances, students have the flexibility to schedule these courses when it is most convenient for them to do so. For example, students who wish to take MATH 140 (Calculus with Analytic Geometry I) and MATH 141 (Calculus with Analytic Geometry II) in order to satisfy the General Education quantification (GQ) requirement may choose to take these courses during the first two semesters of the architecture program.

Students must select 15 credits of supporting courses in consultation with their academic adviser. This category of coursework gives students the freedom to explore a range of interests, develop concentrations, or pursue minors. Students may schedule these courses when it is most appropriate for them to do so. Students may wish to begin taking supporting courses earlier in their academic career in order to pursue a concentration or a minor that involves a sequence of coursework. For example, some students may choose to take Italian language courses prior to the semester they will spend in Rome. For students who do not acquire any background in Italian before going to Rome, an introductory Italian language and culture course is available in Rome.

### **Minors and Concentrations**

Due to the size and diversity of the Pennsylvania State University, many opportunities for minors and concentrations exist and may be pursued by students wishing to enhance their academic experience. In recent years, some of the minors earned by students in the Bachelor of Architecture program would include Architectural History, Art History, Business and the Liberal Arts, International Studies, Italian, Philosophy, Psychology, and Spanish.

A minor is defined by the University as an academic program of at least 18 credits that supplements a major. A minor program may consist of course work in a single area or from several disciplines, with at least 6 but ordinarily not more than half of the credits at the 400-course level. Total requirements are to be specified and generally limited to 18 to 21 credits. Entrance to some minors may require the completion of a number of prerequisites, including courses, portfolios, auditions, or other forms of documentation that are not included in the total requirements for the minor. All courses for the minor require a grade of C or higher.

In addition to developing concentrations of coursework that do not focus on architectural content, students have pursued interests related to architecture such as lighting or acoustics by taking coursework offered by the Department of Architectural Engineering or interests in site related topics or environmental planning issues by taking coursework offered by the Department of Landscape Architecture.

### **Off-Campus Programs for Students Enrolled in the Architecture Programs**

The Architecture Department's Rome study abroad program "Sede di Roma" formerly taught by Penn State faculty since 1992 has evolved into a third-party provider. In 2009, Professor Romolo Martemucci, a faculty member in the department and the long-time Director of the Rome program retired from Penn State and established the [Pantheon Institute](#) in Rome as its inaugural Director. The Pantheon Institute is officially recognized by the Ministry of Education in Italy as an American institution of higher learning in Rome. The Pantheon Institute provides and hosts study abroad programs from a variety of colleges and universities, including the architecture department's Rome program. The Department has academic control of the Rome program and Professor Martemucci's directorship ensures continuity in our academic offerings.

While the faculty remain the same, the Pantheon Institute is able to offer additional housing and curricular options to our students by leveraging the inclusion of multiple schools. After three years of operation as a third-party entity, a recent assessment indicates that the studio and housing facilities have improved and our students have greater course options. The Department will continue to monitor program changes to ensure the historical excellence of the study abroad program is maintained. Student surveys and feedback continue to report strong support for the program through this transformation.

### II.2.3 Curriculum Review and Development

Curriculum changes are initiated through informal discussions among faculty members or by the Department Head. These informal discussions are subsequently formalized in curriculum proposals as a change to the undergraduate course offerings. Proposals for new programs and minors also originate with the faculty or the Department Head. If consensus is reached among the faculty, the first step in establishing a new program is to submit it to the College. The process is facilitated by the Curriculum Committee. The faculty members of the Curriculum Committee are appointed annually by the Department Head. The following faculty members are currently serving on the department's Undergraduate/Graduate Curriculum Committee:

|                    |                                     |
|--------------------|-------------------------------------|
| Daniel Cardoso     | Assistant Professor of Architecture |
| Christine Gorby    | Associate Professor of Architecture |
| Rebecca Henn       | Assistant Professor of Architecture |
| Katsuhiko Muramoto | Associate Professor of Architecture |
| Alexandra Staub    | Associate Professor of Architecture |

The Curriculum Committee continually conducts regular and rigorous evaluations of the B.Arch curriculum, and proposes revisions to the curriculum when necessary to address changes in architectural practice, educational philosophy, building, design, and teaching technologies, and changes in University policy. Major modifications to the curriculum and all new courses are voted on and forwarded to the full architecture faculty for approval. 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.

The Coordinators and the Curriculum Committees work closely in shaping the program. The Coordinators meet regularly with the other studio faculty in their year level 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 so as to achieve the curriculum objectives defined for that studio year level. The members of the Coordinators Committee are as follows:

|                   |                                     |
|-------------------|-------------------------------------|
| Jawaid Haider     | Professor of Architecture           |
| Darla Lindberg    | Professor of Architecture           |
| Loukas Kalisperis | Professor of Architecture           |
| James Kalsbeek    | Associate Professor of Architecture |
| Alexandra Staub   | Associate Professor of Architecture |

As discussed in the Program Self Assessment section of this APR, consistently rigorous reviews of curriculum in the Department constitute a vitally important part of the self-assessment process. The process not only requires faculty participation and discussion, but also alumni and student input. The alumni survey conducted every five years asks probing questions that focus on overall quality of advising in 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 for the program. Similarly, the faculty is always interested in the students' assessment of the curriculum, effectiveness of the studio sequence, and the range of architecture elective courses. To this end, a

student survey that coincides with the alumni survey is also conducted. The results of these surveys are summarized in section IV.5 of the Supplemental Information section.

Self-assessment plays a critical role in curriculum development and is a key element in any long-range planning endeavor. The Architecture Department has in the past few years conducted an analysis of the program's strengths and weaknesses via faculty, alumni, and student participation. This analysis is shaping and guiding curriculum development and the learning culture of the program. The groundwork for long-term planning has been established and the Curriculum Committee and Design Coordinators Committee will continue to work toward implementation.

The Stuckeman School Strategic plan gives immense importance to architectural education and envisages world engagement that more effectively integrates our students, our service, and our scholarship within the global community. After faculty discussion and planning, this fall the Architecture Department will begin a professional graduate (M.Arch) program. This program will strengthen the accredited undergraduate program and help cultivate new curricular synergies in educational and research endeavors.

### **Part Two (II): Section 3- Evaluation of Preparatory/Pre-professional Education**

Penn State will evaluate, for possible transfer credit, coursework that students have completed at other colleges and universities. The Undergraduate Admissions Office will determine which credits transfer to the University and the academic unit will determine how those credits will be used to fulfill degree requirements in the program of study.

Students who wish to be considered for advanced standing admission to The Pennsylvania State University in the Bachelor of Architecture program are required to submit an application for admission to the Undergraduate Admissions Office by December 31 and a portfolio of creative work to the Department of Architecture. Portfolios are accepted between January 1 and February 15. A Department of Architecture faculty committee is responsible for reviewing the portfolios and making recommendations to the Department Head concerning admission to the program and the appropriate studio level if admission is recommended. The Department Head will select students for admission based on the committee's recommendations, the availability of space within the program, and the determination of the Undergraduate Admissions Office that students have met the institution's academic standards for advanced standing admission.

Students who are offered advanced standing admission to the program will have coursework, which may be used to satisfy the University's General Education requirements, evaluated by the College of Arts and Architecture. The Department of Architecture will evaluate transcripts and descriptions of those courses which may be relevant to the major to determine how students will be able to use that coursework to fulfill degree requirements. The determinations of both the College and Department will be entered on the University's degree audit system and students will be sent copies of their degree audits.

Student progress is evaluated each and every semester by the faculty who are teaching the courses in which the students are enrolled. University policy indicates that students must earn a grade of C or better in every course that has been designated as a C-required course in the major. The Department of Architecture has determined that all courses which are required for the major will be "C-required" courses. Students who do not earn a C or better will be required to repeat the coursework if they wish to continue in the program. Students who do not earn a C or better in design studio coursework must repeat that work and remediate weaknesses before advancing to the next studio level. This process involves at least a full year delay in advancement through the studio sequence.

At the end of the second year, students submit a portfolio of their architectural design work as part of their studio work on which they acquire feedback from the faculty to help the students understand the need and value of putting together an effective architectural portfolio. This is essentially a developmental

review and students receive extensive feedback from faculty about the quality of their work and its representation, and the portfolio grade is incorporated in the students' overall semester grade.

The University's standards for graduation indicate that students must have at least a 2.00 cumulative grade point average and must have earned a C or better in all courses designated as C-required courses in the major. The students' academic records are therefore reviewed every semester to help them meet requirements for the major and remain in good standing in the program.

## **Part Two (II): Section 4 - Public Information**

### **II.4.1 Statement on NAAB-Accredited Degrees**

The required "Statement on NAAB-Accredited Degrees" is included in the "Architecture" section of the Penn State University Bulletin of Undergraduate Degree Programs at <http://bulletins.psu.edu/undergrad/programs/baccalaureate/a/ARCH> on the Department of Architecture website at <http://stuckeman.psu.edu/arch/bachelor-architecture-degree> and also on the Stuckeman School website at <https://stuckeman.psu.edu/arch/naab-statement-0>

### **II.4.2 Access to NAAB Conditions and Procedures**

This information is available on the Department of Architecture website at <http://stuckeman.psu.edu/arch/national-architectural-accrediting-board>

### **II.4.3 Access to Career Development Information**

Links to this information are available on the Department of Architecture website at <https://stuckeman.psu.edu/arch/career-development-information>

### **II.4.4 Public Access to APRs and VTRs**

This information is available on the Department of Architecture website at <http://stuckeman.psu.edu/arch/national-architectural-accrediting-board>

### **II.4.5 ARE Pass Rates**

This information is available via a link on the Department of Architecture website at <http://stuckeman.psu.edu/arch/national-architectural-accrediting-board>

## **PART THREE (III): PROGRESS SINCE LAST SITE VISIT**

### **Part Three (III): Section 1 - Summary of Responses to the Team Findings 2008**

#### **A. Responses to Conditions Not Met**

The visiting team found no conditions “not met” in the 2008 accreditation review.

#### **B. Responses to Causes of Concern**

There were four student performance criteria in the Visiting Team Report dated March 5, 2008 listed as “causes of concern”:

##### **Condition 13.2: Critical Thinking Skills**

This condition, which corresponds to the revised 2009 condition A2, Design Thinking Skills, within REALM A: Critical Thinking and Representation, stated:

*Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well reasoned conclusions, and test them against relevant criteria and standards.*

**2008 Visiting Team Comment:** “The team finds this criterion to be met, though there is room for improvement. A clear studio rigor that reinforces critically inquisitive design work is supplemented by a series of history and theory courses that are most well represented by Arch 311w. This mandatory fourth-year advanced theory course provides a comprehensive overview of seminal texts and demands critical responses of those works verbally and in written form (sic) the students. The team strongly recommends aligning a more integrated theoretical curriculum with both the history and design curriculum.”

**2013 Department Response:** The incorporation of this condition in REALM A: Critical Thinking and Representation in 2009 NAAB Conditions for Accreditation has allowed the program to take a multi-pronged holistic approach to satisfying this criterion. Arch 311w (a writing-intensive theory course), formerly positioned in fourth-year, was moved to third-year. By locating the theory class one year earlier in the curriculum, it is better aligned with the design curriculum content of third-year design courses (Arch 331 and 332). A portion of course content has been adjusted to promote the integration and impact of theoretical positions in affecting design choices. The introductory theory course (Arch 210) was substantially altered in 2010 to provide a more integrated and focused content for architecture majors only. Formerly, the course served B.Arch. majors as well as fulfilling general education requirements for architectural engineering students and other students throughout the university.

Professor Denise Costanzo was hired in multi-year fixed term position in 2009 to teach our theory sequence. Professor Costanzo holds a PhD in Architectural History and combines teaching in theory and design. Where possible, faculty members teaching the theory courses in the required curriculum also are assigned to teach a design studio. These dual teaching assignments facilitate the integration of the theory courses with design curriculum. Hired in 2008, Professor Cooper, PhD in architectural history, has greatly enhanced the Arch 121 Visual Communications course to emphasize the use of architectural precedent (in addition to hand-drawing skills) to support design studio in first year. While the primary curricular objective of this course is to teach drawing representation conventions, the integration of history, theory, drawing, and architecture is useful for students. The requirement to produce a thesis book documenting a year long thesis research and design in Arch 491-92 has been made more rigorous. Each fifth-year 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.

#### **Condition 13.4: Research Skills**

This condition, which corresponds to revised 2009 Condition A5, Investigative Skills within REALM A: Critical Thinking and Representation, defined this performance criterion as follows:

*Ability to gather, assess, record, and apply relevant information in architectural coursework.*

**2008 Visiting Team Comment:** “Minimally met. The history-theory curriculum exposes students to appropriate skills and exercises for research and the writing intensive components are administered admirably. The research components / books are a continual sub-text to many of the design studios throughout the curriculum. While there are exceptional examples of research documentation, many research documents recording design projects tend to rely heavily on simple notated graphic documentation and diagramming even at the thesis studio level. The thesis sequence would benefit with the inclusion of a research methodology module and a developed research component that supports theoretical aspirations.”

**2013 Department Response:** A newly revised course in introductory architectural theory dedicated for B.Arch majors in second-year, Arch 210, is now taken by all students. The course includes a module to facilitate the development of research skills. Similarly, Arch 311w, a writing intensive course for third-year students now provides instruction on research methodology. Within the fifth-year design thesis course (Arch 491-92), research methods presentations and expectations are now streamlined and integrated into the design thesis studio. The majority of resulting work may be better described as data and information documentation, re-formulation, interpretation, and synthesis than research in the scientific sense of generating or discovering new knowledge. This characterization is true of most architectural “research” performed at an undergraduate level.

Three recently hired faculty members have each received their PhD’s in architectural theory, history, or computation. The addition of these new faculty greatly expands our ability to introduce research skills in stand-alone theory and drawing courses as well as reinforce research in studio design courses as each of the new faculty teach in the design studio sequence.

#### **Condition 13.17: Site Conditions**

This condition, which corresponds to revised 2009 Condition B4, Site Design within REALM B: Integrated Building Practices, Technical Skills and Knowledge, stated:

*Ability to respond to natural and built site characteristics in the development of a program and the design of a project.*

**2008 Visiting Team Comment:** “This is minimally met; the team has concern about the integration of site within the observed projects on display. An understanding of site manipulation and its implications on architectural drawings was not strongly evident in work samples. The team would recommend considering collaboration with the Landscape Architecture department.”

**2013 Department Response:** Following the 2008 accreditation review, all studios offered in the architecture program have stressed the importance of site design in architecture. To this end, more collaboration and interaction with Landscape Architecture faculty and students is encouraged. The second year design studio (Arch 231-32) is decisively assigning a site of extreme topographic characteristics to reinforce the issue of sculpting of land, and the interdependence of buildings and their situational contexts. Landscape Architecture faculty are invited to lecture on site conditions and design related to the projects they are assigned in second year, in addition to many specific initiatives to address this concern.



The Hajjar Competition, a mandatory one-week competition for all third-year design students (Arch 331-32) requires the design of a residence. The competition situates the project site on a hillside enabling students to demonstrate competency in contouring earth for structure and hydrology and exhibiting technical drawing accuracy in describing topography.

Collaboration with Landscape Architecture faculty and students was initiated in 2009 during the fourth-year studio sequence in Rome and at University Park locations. In 2012, when fourth-year students were in residence at the University Park location, they worked in teams engaged in urban design projects that included design for the City of Toronto as part of the Don-Lands waterfront development planned by Michael Van Valkenburgh, as well as projects in Washington, Baltimore, and Philadelphia. Students worked in collaborative architecture/landscape architecture teams under the direction of a jointly appointed faculty member. The relocation of Penn State's Landscape Architecture study abroad program from Rome to Bonn starting in spring 2012 resulted in the collaborative studios and competitions to be centered at the University Park campus.

A series of technical drawing exercises was added to Arch 204, the introductory materials and construction course subsequent to the 2008 accreditation review. The exercises introduce students to the conventions of describing landscape and architecture constructions. The sites for the small design projects are located on a hillside necessitating the re-grading of the topography to allow for hydrological flow, structural retaining of earth through site and building walls, and vehicular and pedestrian access. The demonstration of drawing conventions showing topographical reconfiguration is required. The intention of the drawings exercises is to better prepare students to manipulate sites of a larger scale in third-year design studio projects.

The Chair of Design Innovation in the Stuckeman School, Ray Gastil, has been a leader in urban design both in the city planning agencies in New York City and Seattle and as director of the Van Allen Institute. From 2011-13, Professor Gastil taught urban design studios to interdisciplinary teams of architecture and landscape architecture students. In spring 2012 students were engaged in a multi-university design project in New York City organized by Mary Miss, and a research project studying the affect of campuses on urban design.

### **Condition 13.28: Comprehensive Design**

This condition, which now corresponds to revised 2009 Condition B6, Comprehensive Design within REALM B: Integrated Building Practices, Technical Skills and Knowledge, described comprehensive design as follows:

*Ability to produce a comprehensive architectural project based on a building program and site that includes development of programmed spaces demonstrating an understanding of structural and environmental systems, building envelope systems, life-safety provisions, wall sections and building assemblies, and the principles of sustainability.*

**2008 Visiting Team Comment:** "Minimally met. The comprehensive design experience has been developed through two parts of the curriculum, specifically, the third-year design studio experience in a controlled format and the thesis project in the fifth year. While there is a concerted effort to deliver the comprehensive project factors (structural and environmental systems, building envelope systems, life safety provisions, wall sections and building assemblies, and the principles of sustainability) through controlled exercises during the third year there is little evidence that there are similar specific exercises during the fifth year, except through some of the course content. Put another way, the third year concentrates on certain aspects of comprehensive building codes, zoning, site, tax increments, etc. while the various thesis projects, with their diverse interests and goals, failed to collectively illustrate each of the factors outlined as comprehensive criteria. It may prove beneficial to add comprehensive criteria to the fourth year or devise a more explicit process of illustrating the comprehensive project factors during the thesis year."

**2013 Department Response:** After considerable discussion and curricular review in the past two academic years, the program has taken a dual approach in addressing the concerns of the 2008 NAAB team. The switch of comprehensive design to an earlier level was recommended in the 2008 Visiting Team Report as a means of better regulating the type of comprehensive design project students executed and allowing the fifth-year projects greater latitude for design-thesis investigation. After a thorough analysis of the results at the end of the third year in Spring 2012, the faculty decided to add a semester to the comprehensive design sequence. Beginning 2012, the students are in a three-semester comprehensive design sequence, ARCH 331, 332, and 431/432. In each semester, the level of complexity and detail is increased. For the next two years through 2013-14, the three-semester sequence and fifth-year studio classes will be designated as comprehensive design to assure all current students have met this requirement. The long-range plan after the accreditation review of comprehensive design criterion in 2013-14 is that the fifth year thesis will concentrate on research questions and moving forward the three-semester sequence will satisfy the comprehensive design criterion.

The content of Arch 431 has been changed to reflect the NAAB visiting team's recommendation to move comprehensive design into the fourth year. Beginning this year, comprehensive design is taught in a three-semester sequence of increasing complexity, starting in the fall semester of the third year, continuing into the Spring, and culminating in the fourth year studio. The curricular changes in 431 and the close coordination with Arch 480: "Building Systems Integration" directly address comprehensive design. ARCH 480 is re-organized with a series of "synthesis charrette" exercises developed to assure that all students are receiving consistent exposure and opportunity to understand the issues of comprehensive design.

While the comprehensive design criteria has been added to the fourth-year to further strengthen our studio sequence vis-a-vis this performance criterion we are also giving careful attention to the comprehensive design component in fifth year by demonstrating unambiguously the close integration of Arch 480 and Arch 492 in the spring semester. We intend to provide stronger evidence of close integration of building systems and building assemblies that already happens through Arch 480 through various exercises and related assignments as part of ongoing studio work and Design Thesis development. These exercises include structural, environmental, and building envelope systems, life safety and sustainability as an integral part of design development. Fifth-year faculty working in close alignment with Arch 480 (Building Systems Integration) coursework have instituted greater explicit demonstration of comprehensive design factors (taught in the spring semester, the course runs concurrently to the second-half of the thesis studio). We believe the specific exercises currently being executed as part of Arch 480 can be more clearly defined and delineated in the thesis graphic representations and text. Over the past two years thesis projects have demonstrated modest improvements in fulfilling the comprehensive design criterion.

The third-year design studio has also focused greater attention on building systems integration through curricular adjustments stressing environmentally-conscious, performance-based design, and teaching methods prioritizing architectural engineering design input early in the process. Secondly, fifth-year thesis design studio has been augmented with greater technical support from the professional practice and building systems integration courses offered concurrently.

Commencing in spring 2010, the third-year design studio (Arch 332) curriculum emphasizes building systems integration and sustainable building practices. Performance-based sustainability software evaluation tools (Ecotect) and Revit are employed across the studio to heighten awareness and representation of design responses to environmental forces and building systems. At Penn State, engineering faculty outside of our department teach environmental systems, lighting, structures (and other building systems). We have made improvements through greater engagement of the engineering faculty by involving them in design critiques early in the design phases. Architectural faculty with stronger interests in building systems integration are now guiding the third-year studio work and we have hired an adjunct faculty member and local practitioner expressly to support comprehensive design integration goals. The faculty committee CECA (Committee for Environmentally Conscious Architecture) has developed new curricular approaches to meeting some of the student performance criteria (specifically

2009 SPC B3 Sustainability and B8 Environmental Systems) involving Comprehensive Design. In fall 2010, the Department of Architecture hosted a conference on building integrated wind power, a research interest of several faculty members and a technology supported by Penn State as a purchaser of energy. The third-year design studio, Arch 331, utilized the focus of this research in the design of a museum in Erie, PA.

The Professional Practice course (Arch 451) now includes modules on legal restrictions, zoning and building codes targeted for application in each student's individual thesis design during the initial design phases in the fall semester. Professor Bob Holland, a 25-year project manager for the Disney Corporation has been the instructor for this course. His considerable experience in the legal constraints of design has been directly employed in the fifth-year projects.

For the past two years, and continuing this year, five fifth-year B.Arch students have participated in the interdisciplinary BIM/Integrated Project Delivery course to meet the requirements of comprehensive design. Previous to this year, only M.Arch architecture students have been able to take the course. Current space, scheduling and hardware limitations limit participation to a total of 30 students including five architecture students.

The Department recently received the highest award for the 2010 AIA Building Information Modeling Award "Integrating BIM in Academia" and the 2011 NCARB Integration of Education and Practice Honorable Mention award. The awards are in recognition of the high quality and unique interdisciplinary mix of students taught in collaboration with Architectural Engineering and Landscape Architecture. The course combines all four of the primary engineering disciplines with architects and landscape architects. Faculty from across the disciplines lead the class and are assisted by practicing architects and engineers. Ways to increase student participation in the course are being considered. Scheduling conflicts across the six disciplines and inadequate collaborative work spaces are the greatest obstacles.

### **Part Three (III): Section 2 - Summary of Responses to Changes in the NAAB Conditions**

Many changes have occurred in the 2009 Conditions for Accreditation. While many of them are a natural outcome of fine-tuning and streamlining the previous version of the conditions, there are a few that are substantive and have appreciably altered the process of evaluation. This section will delve into some of those kinds of changes.

The **History and Mission** section, which was added to the 2009 Conditions, has been useful in explaining the relationship of the professional B.Arch program to the University at large. This section clarifies the process of transformation in the last few years and overall academic and administrative structure of the Department in relation to the Stuckeman School, College, and the University.

The introduction of the new condition of **Long-Range Planning** in the 2009 NAAB Conditions and the emphasis on the its relationship to **Program Self-Assessment** and the **Five Perspectives** has prompted the Department, and eventually the Stuckeman School, to respond in a comprehensive manner to the various strategic plans and their implications for the accredited B.Arch program. This process will potentially trigger a new strategic planning update with a clearer and insightful sense of direction. Although this planning process is ongoing and happens every year, it can clarify the common objectives of the faculty and assist in providing guidance and direction in the future.

The new grouping of the Student Performance Criteria in the 2009 Conditions into three different realms, namely, REALM A: Critical Thinking and Representation, REALM B: Integrated Building Practices, Technical Skills and Knowledge, and REALM C: Leadership and Practice has been most helpful in providing a holistic understanding of the curriculum. The categorization of the Student Performance Criteria into three distinct realms has been a positive development and has enabled the program to take an even more integrative approach to how the overall curriculum, and not just specific courses, satisfies the student performance criteria.

The new criterion of **Historical Traditions and Global Culture** in the 2009 Conditions for Accreditation replaces the previous “Non-Western Traditions” student performance criterion and is a positive change as it is a more precise term for what is expected. It encourages faculty to integrate Non-Western content into existing history, theory, and criticism courses. While this is a more time consuming and complex approach, it makes the courses more interesting and meaningful for students.

Other changes in 2009 Conditions have implications for course content and curriculum as well. For example, the criteria of **Sustainability** and **Life Safety** have changed and the level of proficiency has been raised from *understanding* to *ability*. The Architecture Department has responded by intensifying studio efforts to integrate new ideas and concepts acquired through lectures, seminars, and symposia. This is particularly applicable to the third studio content and methodology where sustainability is emphasized in all projects. This change has also stimulated a revised and enhanced content for the Technical Systems Integration course that is offered concurrently with the comprehensive design studio.

The 2009 Conditions represent the most substantial changes in the **Comprehensive Design** criterion because it requires the synthesis of eleven student performance criteria in one comprehensive design project. The implications of this change are enormous, and it has encouraged the faculty to reevaluate the content of existing courses and part of the curriculum. Adjustments have to be made regarding expectations, intellectual rigor, and level of project resolution in comprehensive design. One strategy the program is investigating is to conceptualize comprehensive design as a three-semester sequence with increasing level of complexity and detail in each consecutive semester.

**PART FOUR (IV): SUPPLEMENTAL INFORMATION**

**IV.1 Course Descriptions**

One-page course descriptions follow on pages 127 –156.

Penn State University

Department of Architecture

## **ARCH 131s: Basic Design Studio I**

**4 Credits**

Spring 2013

MWF 1:30 – 5:30 SFB 2ndFloor

**Course Description:** An introduction to architectural design, with an emphasis on *conceptual development, the design process* and the quality of *design products and presentations*.

### **Course Goals & Objectives:**

- Introduction to *the design studio as a learning environment*
- Introduction to *the design process*
- Introduction to *methods of design evaluation and assessment (the critique)*
- Introduction to *drawing as a means to architectural design*
- Introduction to *modeling as a means to architectural design*
- Introduction to *the importance of the environment as a context for design* (project 1)
- Introduction to *the use of architectural history as inspiration for design* (project 2)

Designated as our university required “Freshman Seminar,” this course also provides:

- Orientation to *the department, the school, the college and the university community*
- Orientation to *the Model Shop, The Library and available IT support and services*

### **NAAB Student Performance Criteria addressed and supported:**

Primary Evidence of:

#### **A.6. Fundamental Design Skills**

#### **Topical Outline:**

Warm-up Design Exercise (5%), Model Shop Orientation (5%), Library Orientation (5%), Halloween, Costume Parade Project (5%), Design Project 1 (40%), Design Project 2 (40%)

#### **Prerequisites:**

Admission to the Bachelor of Architecture Program

#### **Textbooks/Learning Resources:**

Ching, F. *Design Drawing*

Ramsey, C.G. *Architectural Graphic Standards, Student Edition*

Cooper, Douglas. *Drawing and Perceiving*

#### **Offered:**

Fall only; annually

#### **Faculty assigned:**

James Kalsbeek (coordinator), Peter Aeschbacher, Jodi LaCoe, Nida Rehman, Cathy Braasch

Penn State University

Department of Architecture

## **ARCH 121 Visual Communications**

**2 Credits**

Fall 2012, Fall 2013

T/TH 2:30-5:30

**Course Description:** Instruction/exercises provided in descriptive/projective geometry and related architectural graphics: orthographic, paraline, perspective, sciagraphy, experiential/analytical sketching. Standard conventions, techniques and a variety of media are introduced and more advanced combinations/variations.

### **Course Goals & Objectives:**

- To **represent** what one sees in reality: students will be encouraged to develop their visual acuity- the ability to see with clarity, and accurately record what is seen.
- To **visualize** what is seen with our minds eye: students will be invited to explore and give shape to images of their imagination. Through visual thinking, students will learn to clarify and give form to visual thoughts as a means to propose ideas.
- To **communicate** with others and with ourselves: students will learn to read and understand architectural images produced by others, and develop and nurture the skills necessary to express and present their own ideas in order to effectively communicate, speculate, experiment, test and analyze them.

### **NAAB Student Performance Criteria addressed and supported:**

Primary Evidence of:

**A.3 Visual Communication Skills**

**A.7 Use of Precedents**

**A.8 Ordering Systems Skills**

### **Topical Outline:**

Lectures/demonstrations of drawing/representational techniques (40%) , Studio drawing exercises (45%), On-site drawing exercises (10%), Student Development and re-working of drawings (5%)

### **Prerequisites:**

None

### **Textbooks/Learning Resources:**

1. James Cooper: Excerpts from Drawing and Analyzing Architecture (Routledge, publication date 2014)
2. Francis K. Ching, Design Drawing (Wiley and Sons Inc., 1997)
3. Douglas Cooper, Drawing and Perceiving, (Wiley and Sons Inc., 2007)

### **Offered:**

Fall/Spring annually

### **Faculty assigned:**

James Cooper

Penn State University

Department of Architecture

**ART H 201: Ancient to Medieval Architecture**

**3 Credits**

Fall 2012

MWF 10:10-11:00 105 Forum

**Course Description:** A survey of Prehistoric, Ancient Near Eastern Egyptian, Greek, Roman, Early Christian, Byzantine, Islamic, Early Medieval, Romanesque, and Gothic architecture.

**Course Goals & Objectives:**

- Students will learn the language, concepts and selected exemplars of Western architecture before 1400
- Students will learn to critically think and write about architectural history through essay examinations and a research paper.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

A.1 Communication Skills

A.5 Investigative Skills

**A.9 Historical Traditions and Global Culture**

**A.10 Cultural Diversity**

C.2 Human Behavior

**Topical Outline:**

Prehistoric, Ancient Mesopotamian, Ancient Egyptian, Ancient Greek, Hellenistic (33%); Ancient Rome, Early Christian, Byzantine, Islamic, Early Medieval (33%); Romanesque and Gothic (33%).

**Prerequisites:**

None

**Textbooks/Learning Resources:**

Michael Fazio, Marian Moffett, and Lawrence Wodehouse. *Buildings Across Time: Introduction to World Architecture*.

**Offered:**

Fall only; annually

**Faculty assigned:**

Elizabeth Smith, Elizabeth Walters



Penn State University

Department of Architecture

**ARCH 132: Basic Design Studio II**

**4 Credits**

Spring 2013

MWF 1:30 – 5:30 SFB 2ndFloor

**Course Description:** Part II of the introduction to architectural design studio, with an emphasis on *making, craft, materials, construction, detailing and environmental responsibility.*

**Course Goals & Objectives:**

- Introduction to *craft, materials, structure and detailing*
- Introduction to *ergonomics, the senses and human use*
- Introduction to *design/build and process of designing through making*
- Introduction to *constraints such as site, client, budget, codes, approvals, etc.*
- Introduction to *cooperation, collaboration, and teamwork in design*
- Introduction to *sustainability and environmental responsibility*

**NAAB Student Performance Criteria addressed and supported:**

**Primary** Evidence of:

**A.6 Fundamental Design Skills**

**C.1 Collaboration**

**Topical Outline:**

Warm-up Design Exercise (5%), Design Project 1 (35%), Design Project 2 (60%)

**Prerequisites:**

Arch131s: Basic Design Studio I (students must earn a C or better)

Arch121: Visual Communications I (students must earn a C or better)

**Textbooks/Learning Resources:**

Ching, F. *Building Construction Illustrated*

Ramsey, C.G. *Architectural Graphic Standards, Student Edition*

**Offered:**

Spring only; annually

**Faculty assigned:**

James Kalsbeek (coordinator), Peter Aeschbacher, Jodi LaCoe, Nida Rehman, Cathy Braasch

Penn State University

Department of Architecture

## **ARCH 122: Visual Communications II**

**2 Credits**

Spring 2013

TR 2:30 – 5:30 111 Boucke Building

**Description:** This studio engages students in the design process through layers of manual and digital workflow incorporating basic and advanced digital software and fabrication equipment.

**Goals and Objectives:** After successfully completing ARCH 122, students will be able to:

- Identify and employ appropriate **visual communication skills [A3]** to express material, formal and conceptual content required in presentation drawings;
- Follow the conventions of **technical documentation [A4]** in the production of digital representations for design projects;
- Research and incorporate the **use of [architectural and graphic] precedents [A7]** as examples of effective communication within the language of design;
- Develop facility with **ordering systems skills [A5]** using appropriate vocabulary and graphic conventions in design presentations;
- Develop and understanding of unique characteristics in computer technologies for conception and representation of architectural intentions.

### **NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

#### **A.3 Visual Communication Skills**

A.7 Use of Precedent

#### **A.8 Ordering Systems Skills**

### **Topical Outline:**

Architectural, graphic, verbal, and interactive communications skills (30%), Digital software skills in Adobe Photoshop, Illustrator, InDesign, Revit Architecture, AutoCAD, Rhinoceros, Google Sketchup, Wordpress, and Prezi (40%), Digital fabrication tutorials on the lasercutter and CNC router (15%), Verbal and graphic presentations of student work (15%)

### **Prerequisites:**

ARCH 131s, ARCH 121, concurrent with ARCH 132

### **Textbooks/Learning Resources:**

www.lynda.psu.edu (online software tutorials)

As, Imdat and Daniel Schodek. *Dynamic Digital Representations in Architecture >> Visions in Motion*

Ramsey, Charles George. *Architectural Graphics Standards, Student Edition*

Ching, Francis, *Building Construction Illustrated*

Lupton, Ellen and Jennifer Cole Phillips. *Graphic Design: The New Basics*

Evan Terry Associates. *Pocket Guide to the ADA: Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities*

### **Offered:**

Spring only; annually

### **Faculty assigned:**

Reggie Aviles (FT/adjunct)

Jodi La Coe (FT/TT)

Penn State University

Department of Architecture

**ART H 202: Renaissance to Modern Architecture**

**3 Credits**

Spring 2013

MWF 10:10-11:00 105 Forum

**Description:** A survey of Renaissance, Baroque, Rococo, Romantic, Victorian, Modern, Post-Modern, and Contemporary architecture in Europe and America.

**Goals and Objectives:** While completing ART H 202, students will learn:

- The language, concepts and selected exemplars of Western architecture since 1400;
- To critically think and write about architectural history through essay examinations and a research paper.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

- A.5 Investigative Skills
- A.9 Historical Traditions and Global Culture
- A.10 Cultural Diversity**
- C.2 Human Behavior

**Topical Outline:**

15<sup>th</sup> and 16<sup>th</sup> centuries (33%), 17<sup>th</sup>, 18<sup>th</sup>, and early 19<sup>th</sup> centuries (33%), mid-19<sup>th</sup> century to present (33%)

**Prerequisites:**

None

**Textbooks/Learning Resources:**

Ross King, *Brunelleschi's Dome: How a Renaissance Genius Reinvented Architecture* (2000).

Richard Ingersoll and Spiro Kostof, *World Architecture: A Cross-Cultural History* (2013).

**Offered:**

Spring only; annually

**Faculty assigned:**

Craig Zabel

Penn State University

Department of Architecture

## **AE 210: Architectural Structures I**

**3 Credits**

Spring 2013

T/TH 9:05 – 11:00 117 Henderson Bldg.

**Course Description:** Introductory course in structural analysis and engineering mechanics (primarily statics) with an emphasis on buildings. Qualitative and quantitative study of architectural structural systems.

**Course Goals & Objectives:**

- Historical development of structures to provide students with insights into structural analysis, design checking (stresses) and synthesis.
- Provide students with an understanding of the interpretation and application of structural aspects of building code requirements, particularly in the area of design loads including load application and load tracing.
- Provides students with basic analysis and engineering mechanics skills serving as the necessary prerequisite knowledge for two additional structural design courses that are required for architecture students.

**NAAB Student Performance Criteria addressed and supported:**

**Primary** Evidence of:

**B.9. Structural Systems**

**Topical Outline:**

Determinate Structural Analysis (60%), Loads and Codes (10%) Load tracing & Tributary Area Methods (10%) Engineering Mechanics (20%)

**Prerequisites:**

None (Background in algebra, trig and basic physics is recommended.)

**Textbooks/Learning Resources:**

*Statics and Strength of Materials for Architecture and Building Construction*, 4th Edition, Barry Onouye and Kevin Kane

International Building Code (IBC 2009)

ASCE 7-05 & ASCE 7-10 American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures.

**Offered:**

Spring only; annually

**Faculty assigned:**

M. Kevin Parfitt, P.E. (F/T – Department of Architectural Engineering)

Penn State University

Department of Architecture

## **ARCH 231: Architectural Design I**

**6 Credits**

Fall 2012

MWF 1:25 – 5:30 SFB 2<sup>nd</sup> Floor

**Description:** The second-year design studio curriculum focuses on the design of small to medium scale architectural interventions introducing students to issues of composition, precedents, program, materials, appreciation of context, conceptual design, and to an awareness of the different technical systems at play in buildings.

**Goals and Objectives:** After successfully completing ARCH 231, students will be able to:

- Explore architectural design as a multi-variable process involving precedents, site/context, concepts, program, and structural technical systems;
- Engage computational media as aids in the conceptualization, representation, and fabrication of architecture;
- Develop an understanding of different architectural relationships between structure and envelope;
- Understand the difference between defined and implied architectural spaces;
- Integrate accessibility concerns in the design of buildings;
- Introduce pragmatic and expressive aspects of architectural design;
- Exercise and develop an understanding of visual communication skills as fundamental to the design process.

### **NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

|            |                                     |
|------------|-------------------------------------|
| A.2        | Design Thinking Skills              |
| <b>A.3</b> | <b>Visual Communications Skills</b> |
| <b>A.6</b> | <b>Fundamental Design Skills</b>    |
| A.7        | Use of Precedents                   |
| A.8        | Ordering Systems Skills             |
| <b>B.2</b> | <b>Accessibility</b>                |
| B.3        | Sustainability                      |
| B.4        | Site Design                         |

### **Topical Outline:**

Corbeletti Competition (10%), Design Idea/Creativity (15%), Graphic and Verbal Presentation/Craftsmanship (25%), Process/Productivity/Active Participation (30%), Site Analysis (10%), and Precedence Analysis (10%).

### **Prerequisites:**

A&A 103, A&A 104, ARCH 121, ARCH 122, second year standing in architecture curriculum

### **Textbooks/Learning Resources:**

Vary from one studio instructor to another depending on the nature of design project and emphasis.

### **Offered:**

Fall only, annually

### **Faculty assigned:**

Reggie Aviles, Daniel Cardoso Llach, James Cooper, Loukas Kalisperis, Shadi Nazarian

Penn State University

Department of Architecture

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**ARCH 210: Intro to Arch & Plan Theories**

**3 Credits**

Fall 2012

T R 11:15–12:30 103 Leonhard/SFB North Forum

**Description:** The course introduces architectural and urban theory by presenting and exploring key concepts through major texts from the Western tradition.

**Goals and Objectives:** This course uses reading, discussion, analysis, and application of theoretical ideas so students improve their critical thinking skills and can apply them to architectural designs and debates. It emphasizes clarity of thought and expression in oral, written, and visual formats. After successfully completing ARCH 210, students will be able to:

- Demonstrate familiarity with key architectural authors and fundamental theoretical issues;
- Comprehend, analyze and criticize primary texts on architecture from antiquity to the present;
- Identify the theoretical and ideological dimensions embodied by the built environment;
- Evaluate how architectural works and ideas are shaped by cultural, political, and geographical contexts;
- Communicate clearly and critically about the conceptual dimension of architecture.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

A.5 Investigative Skills

A.9 Historical Traditions and Global Culture

**C.1 Collaboration**

**C.2 Human Behavior**

**Topical Outline:**

Introduction to theory and key writings and issues from Vitruvius through the late 19<sup>th</sup> c. (33%), Modernist theory from late 19<sup>th</sup> c.- mid-1960s (33%), Postmodernism and recent issues in theory (33%)

**Prerequisites:**

None (recommended: ARTH 202)

**Textbooks/Learning Resources:**

Vitruvius, *The Ten Books on Architecture* (ca. 30-22 BCE; Dover Edition)

Le Corbusier, *Towards a New Architecture* (1923; Dover Edition)

A. Krista Sykes, ed. *The Architectural Reader: Essential Writings from Vitruvius to the Present* (2007)

Additional short readings by P. Goldberger, A. Palladio, G. Vasari, M.-A. Laugier, E. Burke, J. Ruskin, G.

Semper, H. Greenough, W. Gropius, G. Bachelard, P. R. Banham, C. Rowe, J. Jacobs, R.

Koolhaas, P. Eisenman, A. Vidler, and D. Scott Brown.

**Offered:**

Fall only; annually

**Faculty assigned:**

Denise Costanzo (F/T, multi-year fixed-term)

Penn State University

Department of Architecture

**ARCH 203: Materials and Building Construction I**

**3 Credits**

Fall 2011

T R 6:30 – 8:30 SFB Jury Space

**Course Description:** This is an introductory level course that focuses on materials and technologies employed in the design and construction of buildings. Materials—and their associated techniques / tools / machineries—are analyzed through historical development and use, cultural significance, and the conventions/exceptions of performance and functionality. The course delivers materials in lecture form, and through hands-on exposure to materials, techniques and tools. It alternates between technical information, and more architectural/design oriented concerns.

**Goals and Objectives:** At the end of this course students will have had exposure to material and techniques/technologies associated with conventional and exceptional use of wood, earth-built technologies, brick, stone, concrete, and steel. Students will be able to articulate and communicate building material and construction choices as design intentions, and recall/employ lessons learned from architectural exemplars. Students are introduced to technical drawings, and are expected to show evidence of materials/building methods in their studio projects. The first semester class covers wood, earth-built technologies, brick, stone, concrete, and steel, while also addressing the following:

- Poetic use / construction
- Expression of place / time through assembly techniques and materials
- Construction and materials tied to scientific and cultural developments
- The social, economic, and environmental impact of building construction
- The relationship between architecture and construction technologies
- Global practices of building construction
- Ethical use of materials / building technologies

**NAAB Student Performance Criteria addressed and supported:**

Primary Evidence of:

**A.4 Technical Documentation**

**B.12 Building Materials and Assemblies**

**Prerequisites:**

Second year standing in B.Arch curriculum; first year standing in Pro M.Arch curriculum

**Textbooks/Learning Resources:**

Allen Edward, and Joseph Iano. *Fundamentals of Building Construction: Materials and Methods*

Deplazes, Andrea, ed. *Constructing Architecture*

Readings: Various provided by the instructor

**Offered:**

Fall only, annually

**Faculty assigned:**

Marcus Shaffer

Penn State University

Department of Architectural Engineering

**AE 421: Architectural Structural Systems I**

**3 Credits**

Fall 2012

T TH 4:15 – 5:30 108 Henderson

**Course Description:** Students will continue to master structural analysis and will learn to apply principles of mechanics to aid in the design of steel and wood members.

**Goals and Objectives:** After successfully completing AE 421, students will be able to:

- Understand the various loads applied to buildings and how structural elements react to them;
- Perform designs for wood floor systems and columns;
- Perform designs for steel joists, beams, and columns.

**Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

**B.5 Life Safety**

**B.9 Structural Systems**

**B.12 Building Materials and Assemblies**

C.9 Ethics and Professional Judgment

**Topical Outline:**

Structural Analysis (40%), Wood Design (30%), Steel Design (30%)

**Prerequisites:**

AE 210

**Textbooks/Learning Resources:**

Ambrose, James and Tripeny, Patrick. Simplified Engineering for Architects and Buildings. Eleventh Edition. Wiley.

**Offered:**

Fall only; annually

**Faculty assigned:**

Tim Ariosto, Ph.D. Candidate, Department of Architectural Engineering (Fall 2012)

Ali M. Memari, Professor, Department of Architectural Engineering and Department of Civil Engineering. (Fall 2011)



Penn State University

Department of Architecture

## **ARCH 232: Architectural Design II**

**6 Credits**

Spring 2013

MWF 1:25 – 5:30 SFB 2<sup>nd</sup> Floor

**Course Description:** The second-year design studio curriculum focuses on the design of small to medium scale architectural interventions introducing students to issues of composition, precedents, program, materials, appreciation of context, conceptual design, and to an awareness of the different technical systems at play in buildings. The curriculum bridges the abstract design principles taught in the first year and the ability to put together a large building, the focus in the third-year.

**Goals and Objectives:** After successfully completing ARCH 232, students will be able to:

- Explore architectural design as a multi-variable process involving precedents, site/context, concepts, program, and structural technical systems;
- Engage computational media as aids in the conceptualization, representation, and fabrication of architecture;
- Develop an understanding of different architectural relationships between structure and envelope;
- Understand the difference between defined and implied architectural spaces;
- Integrate accessibility concerns in the design of buildings;
- Introduce pragmatic and expressive aspects of architectural design;
- Exercise and develop an understanding of visual communication skills as fundamental to the design process;
- Understand how to integrate technology/structure into architecture;
- Develop the ability to explore, reflect and communicate spatial and material qualities and ideas through traditional and digital media and graphics, modeling, and verbal skills.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

- A.2 Design Thinking Skills**
- A.3 Visual Communications Skills
- A.6 Fundamental Design Skills
- A.7 Use of Precedents
- A.8 Ordering Systems Skills
- B.2 Accessibility
- B.3 Sustainability
- B.4 Site Design**
- C.9 Community and Social Responsibility

**Topical Outline:**

Design Idea/Creativity (15%), Graphic and Verbal Presentation/Craftmanship (25%), Process/Productivity/Active Participation (30%), Site Analysis (10%), and Precedence Analysis (10%), Portfolio Design (10%),

**Prerequisites:**

ARCH 203, ARCH 231, AE 421, second year standing in architecture curriculum

**Textbooks/Learning Resources:**

Vary from one studio instructor to another depending on the nature of design project, and emphasis.

**Offered:**

Spring only, annually

**Faculty assigned:**

Reggie Aviles, Daniel Cardoso Llach, James Cooper, Loukas Kalisperis, Shadi Nazarian

Penn State University

Department of Architecture

**ARCH 204: Materials and Building Construction II**

**3 Credits**

Spring 2013

Tues-Thurs SFB Jury Space and Studio

**Course Description:** Arch 204 is an introductory course in building materials and construction focused on masonry (stone, brick, concrete block) and concrete (cast-in-place and precast) structures. The course is the second part of a two-semester sequence, following Arch 203.

**Goals and Objectives:** The learning objectives for the course can be divided into two categories:

- Developing a sense of materials and construction methods as the media for architecture, and then learning to use these media in creative and appropriate ways;
- Developing basic knowledge of the conventions of building materials and construction techniques and the documentation of those techniques through drawings and models.

**NAAB Student Performance Criteria addressed and supported:**

**Primary Evidence of:**

**A.4 Technical Documentation**

**B.12 Building Materials and Assemblies**

**Topical Outline:**

Readings, lectures, quizzes/exams on building materials and methods (40%), Design and drawing assignments, technical documentation instruction (40%), History/theory readings, field trips, lectures and discussions (20%)

**Prerequisites:**

ARCH 203, ARCH 232: concurrent registration strongly encouraged, AE 424: concurrent registration strongly encouraged

**Textbooks/Learning Resources:**

Required

Allen, Edward, *Fundamentals of Building Construction*, John Wiley & Sons, 5<sup>th</sup> edition  
<http://www.wiley.com/WileyCDA/WileyTitle/productCd-047007468X.html>

Recommended

Ching, Francis D. K., *Building Construction Illustrated*

Allen, Edward, *The Architects Studio Companion*

NCMA, *Masonry Designer's Guide*, 6<sup>th</sup> edition

**Offered:**

Spring only; annually

**Faculty assigned:**

Dan Willis

Penn State University

Department of Architecture

**AE 422: Architectural Structural Systems II**

**3 Credits**

Spring 2013

T R 2:30 – 3:45 73 Willard

**Course Description:** Development of framing configurations, and determination of sizes for unreinforced masonry, reinforced masonry, reinforced concrete, and prestressed concrete elements.

**Goals and Objectives:** As the last course that students take in the structures sequence, this course focuses on the development of the ability to lay out framing systems and to determine approximate sizes for structural elements in various materials. Significant emphasis is placed on:

- An understanding of the process of structural design to be applied independently of material;
- The relationship between structural requirements and architectural design, through the development of projects in the students' architectural portfolio;
- The application of empirical rules, such as span/depth ratios, rather than the explicit calculation of stresses as a means of determining the size of structural elements.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

**B.9 Structural Systems**

B.12 Material Systems and Assemblies

**Topical Outline:**

Structural Design (20%), Masonry Design (20%), Reinforced Concrete Design (20%), Prestressed Concrete Design (20%), Empirical Structural Design (10%), Lateral Systems Design (10%).

**Prerequisites:**

AE 421

**Textbooks/Learning Resources:**

Certain course notes are provided on-line: online resources include product catalogs, NCMA TEK notes, and other resources.

**Offered:**

Spring only, annually

**Faculty assigned:**

Thomas Boothby

Penn State University

Department of Architecture

## **ARCH 331: Architectural Design III**

**6 Credits**

Fall 2012

W F 1:25 – 5:30 SFB

**Course Description:** Through a semester-long project, the third-year studio introduces the comprehensive design process. It focuses on design synthesis of a multitude of aspects, including architectural precedents, thorough site analysis, and the integration of structural, environmental and material systems.

**Goals and Objectives:** Third-year projects are complex, multi-functional buildings that allow students to consider all major aspects of the design and building process. Creative synergy between building design, structure, site, user needs and context is stressed. Context is considered to be a design modifier and determinant: not only physical context, but also historical, cultural, social, political, economic and morphological context are considered as such. Throughout the duration of the project, from conceptual to development stages to final proposals, a recursive propose-critique-modify design process is emphasized. After successfully completing ARCH 331, students will be able to:

- Approach architectural intentions through thorough site study, program analysis, research on architectural precedence and client/user group needs;
- Develop an understanding of interconnectedness of building and context to explore the expressive nature of architecture, and an ability to manipulate existing site conditions according to both pragmatic requirements and architectural intentions;
- Employ critical thinking skills and an ability to articulate architectural intentions and develop architectural propositions with a consistent use of architectural language;
- Synthesize formal, spatial, social, functional (including life safety, accessibility and other code aspects), and sustainable, site and contextual concerns, and technical requirements in building envelope systems, building materials and assembly;
- Develop schematic resolution of structural and mechanical systems and identification of primary building materials consistent with design intentions;
- Develop architectural details consistent with pragmatic requirements and architectural intention;
- Advance graphic and modeling capabilities (both analog and digital) and craftsmanship developed in the second-year design studio.

**NAAB Student Performance Criteria addressed and supported:**

**Primary Evidence of:**

**B.2. Accessibility**

**B.4. Site Design**

**C.9. Community and Social Responsibility**

**Topical Outline:** Corbelletti Competition 5%, Project Booklet 5% (group analysis of site and program, building types, precedents, codes (fire safety), LEED, and ADA), Concept Review 10%, Schematic Design Review 15%, Design Development Review 25%, Final Review 40%

**Prerequisites:**

ARCH 232, ARCH 204, AE 422

**Textbooks/Learning Resources:**

Handouts, library

**Offered:**

Fall semester, annually

**Faculty assigned:**

Rebecca Henn, Ute Poerschke (coordinator 2012, 2013), Sandra Staub, Malcolm Woollen

Penn State University

Department of Architecture

**ARCH 311w: Architectural and Planning Theories**

**3 Credits**

Fall 2012

104 Bio Behavioral Building

**Course Description:** This course contextualizes the practice of architecture within our social, political, economic, and physical environments. As a designated writing-intensive course, students will recognize how a design thesis or concept for a building and a main argument in a paper are the same—an act of creation imbued with meaning that the student—as-author wants to express or communicate to a specific audience (or set of audiences). In class, we connect to and discuss the students' developing studio design concepts, underscoring how a theoretical basis can strengthen the creation of buildings that become cultural artifacts. The course requires active participation from the students through crafting presentations, writing assignments, discussion, and the review of each other's writing and design work.

**Learning Objectives:**

1. to stimulate critical thinking regarding the practices of architecture and planning
2. to join a conversation about architecture, guided by the student's passion and interest in the field
3. to make connections between students' emergent architectural knowledge in studio work and the theoretical readings in the course
4. to promote an understanding of architecture as a social act, dependent upon society's understanding of what architects do, in turn understood through physical and verbal architectural expressions.

**NAAB Student Performance Criteria Supported in the Course:**

Primary Evidence of:

- A.1 Communication Skills**
- A.2 Design Thinking Skills**
- A.5 Investigative Skills**
- A.11 Applied Research**
- C.2 Human Behavior**

**Course Requirements:**

Active Participation in Class Discussions = 15%  
Peer Design Review (2) x 5% = 10%  
Presentation & Discussions (1)@15% & (1)@5% = 20%  
Paper = 30% (in stages)  
Reading Notes = 25%

**Prerequisites:**

ENGL 015: Rhetoric and Composition **OR** ENGL 030: Honors Freshman Composition  
ARCH 210: Introduction to Architecture and Planning Theories  
ART H 201: Ancient to Medieval Architecture  
ART H 202: Renaissance to Modern Architecture

**Textbooks/Learning Resources:**

- Bonta, J.P. 1979. *Architecture and its interpretation: A study of expressive systems in architecture*. London: Lund Humphries.
- Fox, W. (ed.), 2000. *Ethics and the Built Environment*. New York: Routledge.
- Jones, P.B., D. Petrescu, and J. Till (eds.) 2005. *Architecture and Participation*. New York: Spon.
- Till, J. 2009. *Architecture Depends*, Cambridge, MA: MIT Press.
- Zieleniec, A. 2007. *Space and Social Theory*. Thousand Oaks, CA: Sage.

**Faculty assigned:** Rebecca L. Henn

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Penn State University

Department of Architectural Engineering

**AE 211: Introduction to Environmental Control 3 credits**

Fall 2012

T TH 1:00 - 2:15 T 2:30-3:45 117 Osmond

**Course Description:** Qualitative and quantitative study of humans in the built environment.

**Course Goals & Objectives:** This course is intended to familiarize architecture students to certain engineering principles relevant to the practice of architecture. Topics of coverage:

- Thermal environment
- Solar Environment
- Climatology
- Natural responses
- Psychrometry
- Heat Transfer and Building Heat Loss
- Energy Estimate
- Energy Conservation
- HVAC Systems
- Fire protection
- Storm Drainage
- Plumbing

**Student Performance Criteria addressed:**

Support/Primary Evidence of:

A.11 Applied Research

B.3 Sustainability

**B.8 Environmental Systems**

**B.10 Building Envelope Systems**

**B.11 Building Service Systems**

**Topical Outline:**

Thermal Environment (25%)

Heat transfer and heat loss (25%)

Fire Protection (25%)

Storm Drainage and Plumbing (25%)

**Prerequisites:**

None

**Textbooks/Learning Resources:**

Stein, Reynolds, Grondzik and Kwok, Mechanical and Electrical Equipment for Buildings (MEEB). 11th Edition, Wiley, New York

**Offered:**

Fall only; annually

**Faculty assigned:**

Moses D. F. Ling, PE, RA Associate professor of Architectural Engineering

Penn State University

Department of Architecture

## **ARCH 332: Architectural Design I**

**6 Credits**

Spring 2013

W F 1:25 – 5:30 SFB

**Course Description:** Continuing the emphasis placed on the comprehensive and synthetic nature of design in Arch 331, Arch 332 focuses on the understanding and applications of architectural design processes, including architectural precedents, thorough site analysis and the integration of structural, environmental and material systems.

**Goals and Objectives:** The intention is to learn the generation of aesthetically meaningful design that is conscious of its conceptual, contextual, social, and technical characteristics. Site design, sustainability, materiality and construction, accessibility and life safety are emphasized in relationship to architectural intentions. After successfully completing ARCH 332, students will be able to:

- Arrive at architectural intentions through thorough site study, program analysis, research on architectural precedence and client/user group needs;
- Employ critical thinking skills and an ability to articulate architectural intentions to develop architectural propositions with a consistent use of architectural language;
- Integrate and synthesize formal, spatial, social, functional (including life safety, accessibility and other code issues), and sustainable, site and contextual concerns, and technical requirements in building envelope systems, building materials and assembly;
- Develop an understanding of interconnectedness of building and context to explore the expressive nature of architecture, and an ability to manipulate existing site conditions according to pragmatic requirements, sustainability considerations and architectural intentions;
- Develop schematic resolutions of structural and mechanical systems and identification of primary building materials consistent with design intentions;
- Develop architectural details consistent with pragmatic requirements and architectural intention;
- Advance graphic and modeling capabilities (both analogue and digital) and craftsmanship developed in prior design studios and to develop the ability to illustrate interdependency of idea and its built reality.

**NAAB Student Performance Criteria addressed and supported:**

**Primary Evidence of:**

- B.2 Accessibility**
- B.3 Sustainability**
- B.4 Site Design**
- B.5 Life Safety**

**Topical Outline:** Hajjar Competition (5%), Project Booklet (5%) (group analysis of site and program, building type studies, precedents, and analysis of code [fire safety], LEED, and ADA), Concept Review (10%), Schematic Design Review (15%), Design Development Review (25%), Final Review (40%)

**Prerequisites:**

ARCH 331, AE 211

**Textbooks/Learning Resources:**

Handouts, library

**Offered:**

Spring semester, annually

**Faculty assigned:**

Reggie Aviles, Rebecca Henn, Katsu Muramoto, Ute Poerschke (coordinator 2012, 2013), Sandra Staub, Malcolm Woollen

Penn State University

Department of Architectural Engineering

**AE 424: Environmental Control Systems I**

**3 Credits**

Spring 2013

T TH 10:10 – 12:05

108 Wartik

**Course Description:** Fundamental principles and applications of environmental systems in buildings.

**Course Goals & Objectives:** Provide architecture students exposure to the following building environment control systems:

- Architectural Acoustics
- Plumbing
- Illumination
- Electrical system

Students will understand the basic design principles of these systems, the impact of these systems on architectural design, and the architects' responsibilities for the outcome of these systems.

**Student Performance Criteria addressed:**

Support/Primary Evidence of:

- A.11 Applied Research
- B.3 Sustainability

**B.5 Life Safety**

**B.8 Environmental Systems**

**B.11 Building Service Systems**

C.6 Legal Responsibilities

**Topical Outline:**

Architectural Acoustics (25%)

Lighting (25%)

Electrical (25%)

Plumbing (25%)

**Prerequisites:**

AE 211 (Introduction to Environmental Control Systems)

**Textbooks/Learning Resources:**

Stein and Reynolds, Mechanical and Electrical Equipment for Buildings (MEEB). 11<sup>th</sup> Edition, Wiley

**Offered:**

Spring only; annually

**Faculty assigned:**

Moses D. F. Ling, PE, RA Associate Professor of Architectural Engineering



Penn State University

Department of Architecture

**ARCH 312: Critical Postcolonial and Contemporary Perspectives in South Asian Architecture** **6 Credits**

Spring 2013

MW 11:15-12:30 202 Donald H. Ford Bldg.

**Course Description:** This course addresses postcolonial and contemporary architectural perspectives in South Asia in the context of cultural globalization today and examines architectural theory as a recurring set of critical questions or issues that have shaped architectural thought and experimentation from the recent past to the present. The course provides a general understanding and analysis of contemporary theoretical perspectives in architecture and planning in South Asia via discussions on theoretical issues subsumed into broad topical themes. The course examines the relationships between changing architectural *forms* and *forms of thinking*, and to place these forms and ideas within the larger historical framework of social and intellectual change in the globally expanding South Asian region during the contemporary era. Students are encouraged to use this framework to discern further spatial and cultural approaches to the critical interpretation of architectural and landscape architectural forms and ideas of the 20<sup>th</sup> century and beyond.

**Goals and Objectives:** To introduce students to the following issues:

- Architectural Ethics, Globalization, Multiculturalism
- South Asian architecture, colonial and post-colonial historical context
- Contemporary architectural discourse and the impact of Modernist/Post Modernist thinking
- South Asian Theoretical Perspectives and the works of South Asian architects

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

- A.1 Communication Skills
- A.5 Investigative Skills
- A.9 Historical Traditions and Global Culture**
- A.10 Cultural Diversity**
- C.2 Human Behavior

**Topical Outline:**

100-word critical response for each class reading (20%), group design and presentation of building analysis poster (15%), film review (20%), final research paper (30%), participation (15%).

**Prerequisites:**

None

**Textbooks/Learning Resources:**

Ashraf, Kazi Khaleed. *An architecture of independence: the making of modern South Asia*. Arch. League of New York, 1998.

Breckenridge, Carol, ed. *Consuming Modernity: Public Culture in a South Asian World*. University of Minnesota Press, 1995.

Bhabha, Homi. *The Location of Culture*. Routledge, 2004.

Additional readings are made available on Angel.

**Offered:**

Spring only, annually

**Faculty assigned:**

Jawaid Haider, Nida Rehman

Penn State University

Department of Architecture

**ARCH 317: Theory of Modern Japanese Architecture**

**3 Credits**

Not Offered 2013-14

**Description:** ARCH 317 outlines a lineage of ideology in Japanese architectural discourse in order to examine reciprocal interactions between Japan and the West in the development of modern Japanese architecture from the Meiji Period (1868-1912), through the Metabolism of the 60's, to the present day. The course will introduce students to crucial moments in the development of Japanese architecture, while making parallel references to the key developments in the West. This course will specifically focus on the resultant reciprocal and transformative cross-cultural interactions in the development of modern Japanese architecture, and the unique process of "Japanization", in which ideas from the West are adapted, refined, and absorbed into Japanese architecture through specific buildings and architects. The key figures to be discussed during the class include Kenzo Tange, Kisho Kurokawa, Arata Izozaki, Fumihiko Maki, Tadao Ando, Shin Takamatsu, Toyo Ito, Kazuyo Sejima and Shigeru Ban. Key Western architects, including Bruno Taut, Walter Gropius, Frank Lloyd Wright, and Le Corbusier, will also be discussed.

**Goals and Objectives:** Students in this course will be expected to become more familiar with Eastern culture; comprehend basic principles behind Japanese architecture and gardens; understand relevant terminology associated with Japanese culture, art, gardens, and architecture; and become more aware of the reciprocal and transformative cross-cultural interactions in architecture.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

- A.1 Communication Skills
- A.5 Investigative Skills
- A.9 Historical Traditions and Global Culture**
- A.10 Cultural Diversity**
- C.2 Human Behavior

**Topical Outline:**

Essay (5%), Three quizzes (30%), Research paper (10%), Final exam (20%)

**Prerequisites:**

None

**Textbooks/Learning Resources:**

Suggested readings

Boyd, Robin, *New Directions in Japanese Architecture* (George Braziller: New York, 1968).  
Stewart, David B., *The Making of a Modern Japanese Architecture, 1868 to the present* (Kodansha International: Tokyo and New York, 1987).

Additional readings made available on Angel.

**Offered:**

Fall only, annually

**Faculty assigned:**

Katsuhiko Muramoto

Penn State University

Department of Architecture

## ARCH 431: Architectural Design V–Synthesis

6 Credits

Fall 2012

MWF 1:25 – 5:30 SFB 4<sup>th</sup> Floor

**Description:** Reinforcing the emphasis placed on the comprehensive nature of design in the ARCH 331-332 studio sequence, ARCH 431 accentuates synthesis in architecture – stressing the integration of abstract and material elements of design into a coherent schema.

**Goals and Objectives:** This studio will emphasize development of students' ability to:

- Assess the implications of patterns and conditions on a subsequent design;
- Relate technical aspects of building design to spatial intention;
- Integrate multiple issues simultaneously to develop a logical ordering system and develop the continuity of this logic across the scales of a building;
- Cooperate and collaborate in research and design;
- Demonstrate an understanding of the comprehensive nature of design-decision-making process.

### NAAB Student Performance Criteria addressed and supported:

Support/Primary Evidence of:

#### B.3 Sustainability

#### B.6 Comprehensive Design

#### C.1 Collaboration

A2 Design Thinking Skills

A4 Technical Documentation

A5 Investigative Skills

A8 Ordering Systems

A9 Historical Traditions and Global Culture

B2 Accessibility

B4 Site Design

B5 Life Safety

B8 Environmental Systems

B9 Structural Systems

B10 Building Envelope Systems

### Topical Outline:

Corbelletti Competition (5%), Project Analysis & Site Documentation (10%), Synthesis in Schematic Design (20%), Synthesis in Architectural Design Development (25%), Comprehensive Project Integration Review (35%), Project Booklet (5%).

### Prerequisites:

Fourth-year standing in the architecture curriculum

### Textbooks/Learning Resources:

Allen, E. & Iano, J., *The Architect's Studio Companion: Rules of Thumb for Preliminary Design*. John Wiley & Sons, (2007 edition available in course reserve; 2012 version can be downloaded in e-book format).

Kwok, Alison and Grondzik, Walter. *The Green Studio Handbook, Environmental Strategies for Schematic Design, 2<sup>nd</sup> edition*. Oxford: Architectural Press, 2011.

Moe, Kiel. *Integrated Design in Contemporary Architecture*: Princeton Architectural Press, 2008.

ICC International Building Code 2009; USGBC LEED Reference Guide, V. 3.0 (on reserve in the library; info at <http://www.usgbc.org/>)

### Offered:

Fall only, annually

### Faculty assigned:

Lisa D. Iulo, Eric Sutherland

Penn State University, Department of Architecture (Pantheon Institute, former Penn State Sede di Roma)

**ARCH 431/32A: Architectural Design VI [Rome] 6 Credits**

Fall 2012, Spring 2013

MWTH 8:30 – 11:30, Rome

**Description:** This studio course focuses attention on the urban design components of architectural design. Using the city of Rome and its unique position in the history of human development. The building sites are actual or expected project sites based on the current planning directives of the city planning offices. Multifaceted programs are selected with institutional, residential, and commercial activity included in the same building/site. The project runs the full semester with all phases of design included. Beginning with site planning and site design issues, the project runs through design concept and design development phases. The last two weeks are often focused on elevation studies and material details. A complete presentation of site, building and details designs is expected at the final presentation.

**Goals and Objectives:** After completing ARCH 431/32A students will be able to:

- Achieve a complete urban architecture project design and presentation.
- Understand the implications for architectural design of the city of Rome and its unique history.
- Apply an interpretation of history to contemporary design problems.
- Apply contemporary needs and requirements for architecture to a traditional city site.
- Learn how to adapt design to a non-American culture and tradition of building.

**NAAB Student Performance Criteria Supported in the Course:**

Support/Primary Evidence of:

- A2 Design Thinking Skills
- A3 Visual Communication Skills
- A5 Investigative Skills
- A6 Fundamental Design Skills
- A9 Historical Traditions and Global Cultures
- A.7 Use of Precedents**
- C2 Human Behavior
- B2 Accessibility
- B4 Site Design

**Topical Outline:**

Attendance and discussion with instructors at all regularly scheduled course-meeting times. Individual research is expected to be conducted in the library following indications of instructors concerning precedents of design, and site legal (zoning) and planning requirements. Production drawings, models, and virtual reality imagery should fully represent the site and architectural design project in all its scales and dimensions.

**Prerequisites:**

Fourth-year standing in the architecture curriculum

**Textbooks/Learning Resources:**

Material presented as in studio readings, or handout publication excerpts.

**Offered:**

Fall and Spring, annually

**Faculty assigned:**

Romolo Martemucci, David Sabatello

Penn State University

Department of Architecture

**ARCH 499B: Architectural Analysis**

**3 Credits**

Fall 2012

W/F 9:00 – 12:00 Via della Gatta 6

**Course Description:** The course is based on the theoretical assumption that in an age in which architecture is at the forefront of the contemporary cultural debate, the knowledge and awareness of the historical heritage of contemporary design is an essential tool to avoid futile stylistic exercises. The course proposes an investigation of the historical roots of the *"Modern Language of Architecture"*. The concept of *"Modern Language of Architecture"* stems from the idea that *Modernity* is an attitude and not merely a historical phase (i.e. The Modern Movement). Therefore *Modern* are all those architectures which have challenged established values and have proposed new and more significant interpretations of their times.

**Goals and Objectives:** The course is theory based and as such the students will be expected to discuss, dissect, analyse and recompose episodes of urban structure and single architectural objects, both conceptually and graphically, in the attempt to grasp the formal, symbolic and functional meaning of each artefact. Although organized according to a standard chronological sequence, this is NOT a history course. Rather, we are going to travel on a virtual *"time machine"* through the various phases of Italian Architecture and analyze them from the point of view of the modern design professional operating in a globalized society. In so doing, we will try to capture all possible elements of *Modernity* and consider them as elements of a richer, more stratified *Design Vocabulary*.

**NAAB Student Performance Criteria addressed and supported:**

Primary evidence:

**A.8 Ordering Systems Skills**

**Prerequisites:**

Fourth-year standing in the B.Arch curriculum

**Textbooks/Learning Resources:**

The course will take maximum advantage of its unique location: *Rome, the paradigm of urbanity*. The course will focus on the study of the innovative aspects of Roman/Italian Architecture and Urban Design from its early beginnings to the more contemporary realizations. The objective is to highlight the universal design elements that are part of an analytical/creative understanding of urban/architectural space.

The course will be articulated in a series of lectures which will present and analyse the fundamental aspects of the most significant periods of Roman/Italian Urban Design and Architecture in an effort to establish elements of continuity with the problems which face the contemporary designer. Lectures will be followed by site visits and field trips, which will allow you to verify on the field the concepts, which have been previously discussed during the lecture. We are, in fact, convinced that architecture is an eminently physical experience and that in order to fully appreciate its complexity you need to experience its tactile, chromatic and spatial characteristics directly and inside its urban setting.

**Offered:**

Fall and Spring, annually

**Faculty Assigned:**

David Sabatello and Romolo Martemucci

Penn State University

Department of Architecture

**ARCH 499C: Cartography**

**3 Credits**

Fall 2012, Spring 2013

MWTH 8:30 – 11:30, Rome

**Course Description:** Study of Rome's physical/historical/socio-cultural contexts and morphology, through formal lectures and related walks, for which the urban routes, city fabric and significant buildings are analyzed, mapped and drawn by students.

**Course Goals & Objectives:**

- Enable students to read historical maps of the city and relate them to physical reality
- Allow students the opportunity to understand the urban and architectural systems/typologies and hierarchy of the city and how they developed over the course of three millennia
- Enable students to understand the inextricable relationship between architecture, urbanism and culture
- Honing of interpretive mapping and drawing skills (representation of related urban, architectural and natural topographical features)
- Students will learn presentation skills to be used throughout their academic careers,

**Student Performance Criterion/a addressed (list number and title):**

Support/**Primary** Evidence of:

A.2 Design Thinking Skills

A.3 Visual Communication Skills

A.8 Ordering Systems Skills

**A.9 Historical Traditions and Global Culture**

A.10 Cultural Diversity

**C.2 Human Behavior**

**Topical Outline:**

Classroom lectures: 50%, On-site lectures/walks: 30%, Student Development and re-working of route map drawings: 20%

**Prerequisites:**

None

**Textbooks/Learning Resources:**

Ceen, Allan: Bound collection of facsimiles of historic maps of the city and related data (unpublished)

Ceen, Allan: "Roma Travestata" (book manuscript, to be submitted for peer-reviewed publication)

Full scale facsimiles of historic maps of Rome

**Offered:**

Fall/Spring annually

**Faculty assigned:**

Allan Ceen

Anne Pulver

Penn State University

Department of Architecture

## ARCH 432: Architectural Design VI-Synthesis

6 Credits

Spring 2013

MWF 1:25 – 5:30 SFB 4<sup>th</sup> Floor

**Course Description:** ARCH 432 accentuates synthesis in architecture – stressing the integration of abstract and material elements of design into a coherent schema.

**Goals & Objectives:** This studio will emphasize development of students' ability to:

- Assess the implications of patterns and conditions on a subsequent design;
- Relate technical aspects of building design to spatial intention;
- Integrate multiple issues simultaneously to develop a logical ordering system and develop the continuity of this logic across the scales of a building;
- Cooperate and collaborate in research and design;
- Demonstrate an understanding of the comprehensive nature of the design-decision-making process.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

**B.3 Sustainability**

**B.6 Comprehensive Design**

**C.1 Collaboration**

A.2 Design Thinking Skills

A.4 Technical Documentation

A.5 Investigative Skills

A.8 Ordering Systems

A.9 Historical Traditions and Global Culture

B.2 Accessibility

B.4 Site Design

B.5 Life Safety

B.8 Environmental Systems

B.9 Structural Systems

B.10 Building Envelope Systems

**Topical Outline:**

Project Analysis & Topic-related research (10%), Site Documentation & Analysis (10%), Synthesis in Schematic Design (20%), Synthesis in Architectural Design Development (25%), Comprehensive Project Integration Review (30%), Final Project Documentation Boards (5%).

**Prerequisites:**

Fourth-year standing in the architecture curriculum

**Textbooks/Learning Resources:**

Allen, E. & Iano, J., *The Architect's Studio Companion: Rules of Thumb for Preliminary Design*. John Wiley & Sons, (2007 edition available in course reserve; 2012 version can be downloaded in e-book format).

Kwok, Alison and Grondzik, Walter. *The Green Studio Handbook, Environmental Strategies for Schematic Design, 2<sup>nd</sup> edition*. Oxford: Architectural Press, 2011.

Moe, Kiel. *Integrated Design in Contemporary Architecture*: Princeton Architectural Press, 2008.

ICC International Building Code 2009; USGBC LEED Reference Guide, V. 3.0 (on reserve in the library; info at <http://www.usgbc.org/>); PlaNYC Green Buildings & Energy Efficiency ([www.nyc.gov/html/gbee/html/about/about.shtml](http://www.nyc.gov/html/gbee/html/about/about.shtml))

**Offered:**

Spring only, annually

**Faculty assigned:**

Lisa D. Iulo, Eric Sutherland

Penn State University

Department of Architecture

## **ARCH 480: Technical Systems Integration**

**3 Credits**

Spring 2013

T R 11:15 – 12:30 118 Thomas Building

**Description:** This course focuses on concepts of integration of technical aspects into a design, and provides a working knowledge of energy efficiency, sustainability, lighting, code (egress), hvac, envelope systems, and acoustics.

**Goals and Objectives:** The goal is that students learn to reflect how a design intention and technical requirements can be correlated to create the uniqueness of a project. Students learn to implement an energy-, a daylighting-, an electrical lighting-, an hvac-, an egress-, and an acoustical concept in their designs. After successfully completing ARCH 480, students will be able to:

- Apply a technical working vocabulary;
- Conduct appropriate and accurate analyses of technical systems in relation to a design idea;
- Understand the technical environment as an immanent part of a design and to experience the technical design as part of the design work;
- Develop knowledge of passive and active techniques for sustainable architecture;
- Document technical systems in drawings.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

**A.4 Technical Documentation**

A.5 Investigative Skills

**B.3 Sustainability**

**B.6 Comprehensive Design**

**B.8 Environmental Systems**

**Topical Outline:**

Climate and Context as a Trigger for Design Ideas (10%), Energy Concept for the Design Project (15%), Fire Safety Concept for the Design Project (15%), Lighting Concept for the Design Project (20%), HVAC Distribution System for the Design Project (15%), Acoustical Concept for the Design Project (15%), Envelope Concept for the Design Project (10%).

**Prerequisites:**

ARCH 491, ARCH 203, ARCH 204, AE4 22, AE 424

**Textbooks/Learning Resources:**

Vary from one studio instructor (or advisor) to another depending on the nature of design thesis and project, and depending on the student's choice of thesis topic, emphasis, and interests in consultation with the advisor.

**Offered:**

5<sup>th</sup> year: annually (Spring semester)

4<sup>th</sup> year: each semester

**Faculty assigned:**

Ute Poerschke (4<sup>th</sup> and 5<sup>th</sup> year B.Arch.)

Eric Sutherland (4<sup>th</sup> year B.Arch.)



Penn State University

Department of Architecture

**ARCH 491: Architectural Design VII-Thesis I**

**6 Credits**

Fall 2012

T R 1:25 – 5:30 SFB 4<sup>th</sup> Floor

**Course Description:** The course fosters the spirit of in-depth design inquiry and research by utilizing a thesis to link architectural theory and building in a meaningful manner.

**Goals and Objectives:** As the design thesis develops, it should demonstrate the following:

- Architectural relevance of the theoretical inquiry or research through an in-depth study of the culture, context, site, program, precedents, and tectonics.
- The fall semester research culminates in *schematic design* and embodies the seed of an architectural thesis.
- Every building design is comprehensive in its considerations, demonstrating professional competence while aspiring to architectural excellence.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

- A.2 Design Thinking Skills
- A.4 Technical Documentation
- A.5 Investigative Skills**
- A.8 Ordering Systems
- A.9 Historical Traditions and Global Culture
- A.11 Applied Research**
- B.1 Pre-Design**
- B.2 Accessibility
- B.3 Sustainability
- B.4 Site Design
- B.5 Life Safety
- B.6 Comprehensive Design
- B.8 Environmental Systems
- B.9 Structural Systems

**Topical Outline:**

Thesis Proposal and Presentation (10%); Thesis Book: thesis statement, architectural research and identification of design issues, site selection and analysis, and program development (30%); and Schematic Design (60%).

**Prerequisites:**

ARCH 432 or ARCH 432A, fifth-year standing in the architecture curriculum

**Textbooks/Learning Resources:**

Vary from one studio instructor (or advisor) to another depending on the nature of design thesis and project, and depending on the student's choice of thesis topic, emphasis, and interests in consultation with the advisor.

**Offered:**

Fall only, annually

**Faculty assigned:**

Ray Gastil, Christine Gorby, Jawaid Haider (Coordinator), Darla Lindberg, Katsuhiko Muramoto, Marcus Shaffer, James Wines

Penn State University

Department of Architecture

## **ARCH 451: Professional Practice**

**3 Credits**

Fall 2012

MW 10:10 – 12:05 316 HHD East

**Course Description:** ARCH 451 explores changing roles of architects through history and provides a detailed examination of current architectural practice and relationship to clients, builders and society.

**Goals and Objectives:** After successfully completing ARCH 451, students will be able to:

- Develop a thorough understanding of the history of the profession, current structure, opportunities and practices as well as potential future roles for architects.
- Explore the changing relationships among architects, clients and builders as well as the impact of new technology such as Building Information Modeling (BIM) and Integrated Practice.
- Understand client-types and firm-types, their needs and expectations for architectural services.
- Prepare students for the transition from the academic environment to the professional world.
- Develop a thorough understanding of the Internship Development Program (IDP), licensing and examination requirements as well as the importance of life-long learning (Continuing Education).
- Investigate the differing roles, relationships and responsibilities of those involved in AEC.
- Understand the architect's administrative & legal responsibilities during design & construction.
- Understand the importance of and use of construction cost control techniques.
- Understand the importance & legalities of Disability Act (ADA) & Fair Housing Act (FHA).
- Understand risk management and the architect's exposure to professional liability.
- Develop written and oral presentation skills.
- Explore contemporary ethics and professional judgment issues.
- Understand the importance of diversity.
- Understand the role and value of professional organizations such as the AIA and NCARB.
- Overview alternative design related career paths.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

**B.7 Financial Considerations**

**C.8 Ethics and Professional Judgment**

**C.3 Client Role in Architecture**

**C.9 Community and Social Responsibility**

**C.4 Project Management**

**C.5 Practice Management**

A.10 Cultural Diversity

**C.6 Leadership**

B.1 Pre-Design

**C.7 Legal Responsibilities**

B.2 Accessibility

B.3 Life Safety

**Topical Outline:**

Lectures (35%), Assignments (30%), Practitioner Presentations (20%), Research Topics (15%)

**Prerequisites:**

ARCH 491, concurrent

**Textbooks/Learning Resources:**

Ethics and the Practice of Architecture, Wasserman, Sullivan, Palermo

ADA Handbook (Optional, but strongly recommended), AIA

The Architect's Handbook of Professional Practice – Student Edition, AIA

Down Detour Road: An Architect's Search of Practice, Cesal

**Offered:**

Fall only; annually

**Faculty assigned:**

Robert J. Holland

Penn State University

Department of Architecture

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**ARCH 492: Architectural Design VIII-Thesis II**

**6 Credits**

Spring 2013

T R 1:25 – 5:30 SFB 4<sup>th</sup> Floor

**Course Description:** The thesis continues to be the framing principle and the emphasis steadily shifts toward building design consideration or a “thoroughly considered building design project.”

**Goals and Objectives:** The spring semester stresses individual talent, depth of thought, thoroughness of study, and comprehensiveness of design within the scope of a single architectural project:

- The spring semester studio design work is extended and advanced from the fall semester schematic design and directed toward *design development*.
- It is understood that the schematic already embodies the seed or presence of an architectural thesis.
- The aim is to refine and unfold this thesis into a full architectural expression through the *Art and Science of Building*.

**NAAB Student Performance Criteria addressed and supported:**

Support/Primary Evidence of:

- A.2 Design Thinking Skills
- A.4 Technical Documentation
- A.5 Investigative Skills**
- A.8 Ordering Systems
- A.9 Historical Traditions and Global Culture
- A.11 Applied Research**
- B.1 Pre-Design**
- B.2 Accessibility
- B.3 Sustainability
- B.4 Site Design
- B.5 Life Safety
- B.6 Comprehensive Design
- B.8 Environmental Systems
- B.9 Structural Systems

**Topical Outline:**

Stewardson Competition (10%), Design Development (15%), Comprehensive Design Review (25%), Final Drawings and Models (30%), Final Thesis Book (10%), and Section-specific criteria (10%).

**Prerequisites:**

ARCH 491

**Textbooks/Learning Resources:**

Vary from one studio instructor (or advisor) to another depending on the nature of design thesis and project, and depending on the student’s choice of thesis topic, emphasis, and interests in consultation with the advisor.

**Offered:**

Spring only, annually

**Faculty assigned:**

Christine Gorby, Jawaid Haider (Coordinator), Darla Lindberg, Katsuhiko Muramoto, Marcus Shaffer, James Wines

**Part Four (IV): Section 2 - Faculty Résumés**

One-page faculty resumes follow on pages 158 –189.

**Peter Aeschbacher**

**Courses Taught (Two academic years prior to current visit):**

ARCH 491 Architectural Design VII

Special Research Topic Design/Build Studio: IdeaLab01: The Secret Life of Public Spaces

LARCH 311 Neighborhood Planning and Community Design Studio \*

\*Joint Appointment with Department of Landscape Architecture

**Educational Credentials:**

B.A. Fine Art & Communication, Trinity University, San Antonio, Texas 1991Kunstgewerbeschule, Zurich, Switzerland, 1992-1993

M.Arch, University of California, Los Angeles, 2000

M.A. Urban Planning, University of California, Los Angeles, 2000

**Teaching Experience:**

Assistant Professor, Penn State University, 2004-2010

Associate Professor, Penn State University, 2011-present

**Professional Experience:**

Graphic Designer, University of Zurich, Zurich, Switzerland, 1991-1995

Production Manager, Researcher, Office for Metropolitan and Industrial Research, Johannesburg, South Africa, 1995-1996

Intern Architect Koning Eizenberg Architecture, Santa Monica, California, 1997

Intern Architect Mark Mack Architects, Venice, California, 1997, 1998

Frederick P. Rose Architectural Fellow, Intern Architect, Los Angeles Community Design Center, Los Angeles, CA, 1998-2004

Community Organizer & Designer, Los Angeles, CA, 2001-2004

Associate Director, Hamer Center for Community Design Assistance, Penn State University 2004-2010

**Licenses/Registration:**

None

**Selected Publications and Recent Research:**

*Research Sabbatical 2012-2013: 'History of the Community Design Movement in the United States 1960-1980'*

*'IdeaLab01: The Secret Life of Public Spaces' (with Marcus Shaffer, Penn State Dept. of Architecture), multi-disciplinary design research studio on public space, \$260,000 grant, winner of 2012/2013 ACSA National Education Honor Award for Creative Achievement, 2009-2012.*

*Aeschbacher, Peter and Fatima Pombo, 'Impossible Totality: Design Interiors as Monsters', for IDEA Journal (under review), 2013.*

*'History of the Community Design Movement in the United States, 1960-1980', JDS Belgian national research conference; Hasselt, Belgium, 2012.*

*'Hard Space, Soft Space, and Architectures of Appropriation' & 'International Service-Learning as Revolutionary Pedagogy: Design Projects of Community and Consciousness'; Environmental Design Research Association annual conference, 2012.*

*'Space, Everyday Life and the Architecture of Control' & 'Mobile Workshop on Public Space', Environmental Design Research Association annual conference, 2011.*

*'Doing Good, Doing Well? The Impacts of Social Engagement and Design/Build Programs on Early Professional Development'. Erasing Boundaries Symposium, New York City, NY, 2011.*

**Tim Ariosto, EIT**

**Courses Taught (Two academic years prior to current visit):**

AE 421: Architectural Structural Systems I (Fall 2012)

CE 341: Design of Reinforced Concrete Structures (Spring 2012)

**Educational Credentials:**

B.A.E., The Pennsylvania State University, 2010 (Structures Option)

**Teaching Experience:**

Instructor, The Pennsylvania State University, 2012

**Professional Experience:**

Intern, Jacobs Engineering, Arlington, VA, Summer 2008

Intern, Jacobs Engineering, Baltimore, MD, Summer 2009

**Licenses/Registration:**

Engineer in Training (Pennsylvania)

**Selected Publications and Recent Research:**

Peer Reviewed Conference Papers

Ariosto, T, and Memari, A.M. (2013). "State-of-the-Art Review of Window Retrofit Options for Energy Savings in Single Family Dwellings." *Proceedings of the 1<sup>st</sup> Annual Residential Building Design & Construction Conference*. February 20-21, 2013. Bethlehem, PA.

Ariosto, T, and Memari, A.M. (2013). "Comparative Study of Energy Efficiency of Glazing Systems for Residential and Commercial Buildings." *Proceedings of the 2013 Architectural Engineering Institute (AEI) Conference*. April 3-5, 2013. State College, PA.

Research Interests

- Building Envelope Systems
- Building Science

**Professional Memberships:**

American Institute of Steel Construction (AISC) -Student Member

American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) - Student Member

**Reggie Aviles**

**Courses Taught (Two academic years prior to current visit):**

ARCH 122 Visual Communications II  
ARCH 130a Basic Design and Research I  
ARCH 231 Architectural Design I  
ARCH 232 Architectural Design II  
ARCH 332 Architectural Design IV

**Educational Credentials:**

B.Arch., Pennsylvania State University, 1999

**Teaching Experience:**

Instructor, Pennsylvania State University, University Park, 2006-present

**Professional Experience:**

Associate, NBBJ, NY 1999-2006

**Licenses/Registration:**

Pennsylvania (In Progress)

**Selected Publications and Recent Research:**

- \_ 2005 *TIME+ARCHITECTURE*, September 2005
- \_ 2005 *Architecture China*, Autumn 2005
- \_ 2005 *Architecture@07*, Future Shapes of China and Southeast Asia
- \_ 2005 *World Architecture Review*, Design Forum, February 2005
- \_ 2005 *bd World Architecture 200*, 2005 Edition
- \_ 2004 *Interior Design*, May 2004

**Nathaniel Belcher**

**Educational Credentials:**

B.Arch., Virginia Polytechnic Institute and State University, 1988  
M. Arch., Harvard University Graduate School of Design, 1992

**Teaching Experience:**

Career Discovery Instructor, Harvard University Graduate School of Design, 1991  
Assistant Professor, The Ohio State University, 1992 - 1995  
Assistant Professor, Tulane University, 1995 - 1996  
Assistant Professor, Florida International University, 1996- 2001  
Associate Professor, Florida International University, 2001- 2010  
Assistant Dean, Associate Professor, Florida International University, 2002 - 2006  
Visiting Associate Professor, Southern California Institute of Architecture, Spring 2006  
Director, Associate Professor, Florida International University, 2006 – Spring 2009  
Visiting Associate Professor Harvard University Graduate School of Design, Fall 2009  
Director and Professor The Penn State H. Campbell and Eleanor R. Stuckeman School, 2010 - Present.

**Professional Experience:**

Fire fighter, summer '84. Winema National Forest-  
Construction Worker, Summer '85. Branch Construction Company- Roanoke, Virginia  
Intern Architect, 6/86 - 8/87. Skidmore, Owings & Merrill- Chicago, Illinois  
Architectural Designer, 5/88 - 11/88. Gensler and Associates- San Francisco, California  
Architectural Designer, 11/88 - 6/89. Tanner, Leddy, Matum, Stacy - San Francisco, California  
Architectural Designer, 6/89 - 7/90. Studios Architecture-San Francisco, California  
Architect, Nathaniel Quincy Belcher, Fall 1992 - present

**Licenses/Registration:**

Pennsylvania (active), Florida, Louisiana, Ohio

**Selected Publications and Recent Research:**

Dresser Trunk Project, Traveling Exhibition 2007-08  
Practice and Criticism: Integrated Practice and the Twenty-first Century Curriculum. Published 2008  
ARCHILAB 2004: The Naked City- 6th Orléans International Architectural Conference  
Harlem World: Metropolis as Metaphor - the Studio Museum of Harlem in New York City. Published 2004  
Sites of Memory: Landscapes of Race and Ideology Princeton Architectural Press 2001

**Professional Memberships:**

The American Institute of Architects  
National Council of Architectural Registration Board



**Thomas E. Boothby, PhD**

**Courses Taught (Two academic years prior to current visit):**

AE 308 Fundamentals of Structural Analysis  
AE 401 Steel and Wood Design  
AE 422 Architectural Structural Systems II  
AE 497A Ancient and Medieval Structural Design  
AE 597B Historical Methods of Structural Design

**Educational Credentials:**

B.A. (Arch.), Washington University, 1981  
M.S. (Civil Eng.), Washington University, 1982  
Ph.D. (Civil Eng.), University of Washington, 1991

**Teaching Experience:**

Research Associate, University of Nebraska, 1991-1992  
Assistant Professor, Penn State University, 1992-1998  
Associate Professor, Penn State University, 1998-2004  
Professor, Penn State University, 2004-present

**Professional Experience:**

Project Engineer, Design Professionals, Albuquerque, NM, 1982-1984  
Intern Architect, Cibola Energy Corporation, Albuquerque, NM, 1984-1985  
Architect/Structural Engineer, Wilson and Company, Albuquerque, NM, 1986-1989

**Licenses/Registration:**

Pennsylvania, Washington, California

**Selected Publications and Recent Research:**

Boothby, Thomas E., *Stone and Iron In the Gilded Age: American Structural Design from 1870 to 1900.*  
To appear in 2014, ASCE Press, Washington DC.

Boothby, T.E. and Parfitt, M.K. Milo S. Ketchum and Thin-shell Concrete Structures in Colorado. *APT Bulletin.* 43(1):39-46, 2012.

Boothby, T.E. Assessment, Analysis, and Management of Lenticular-truss Bridges. *APT Bulletin.*  
Volume 42, No. 1, pages 19-27 March 2011.

Erdogmus, E., Boothby, T.E., and Smith, E.B. Structural appraisal of the Florentine Gothic construction system. *Journal of Architectural Engineering.* 13(1): 9-17, March 2007.

Boothby, T.E. Load Rating Of Masonry Arch Bridges. *Journal of Bridge Engineering.* 6(2):79-86, March 2001.

**Professional Memberships:**

Fellow, American Society of Civil Engineers  
Fellow, Structural Engineering Institute  
Member, Association for Preservation Technology  
Member, Society for Industrial Archaeology

**Daniel Cardoso Llach, PhD**

**Courses Taught (Two academic years prior to current visit):**

ARCH 232, Architectural Design II  
ARCH 497C, Introduction to Programming for Visual and Spatial Design (Algorithmic Tectonics)  
ARCH 597A, Theory Seminar in Design Computing (Technology and the Imagination of Design)

**Educational Credentials:**

B.Arch., Universidad de los Andes (Bogotá), 2001  
S.M.Arch.S., Massachusetts Institute of Technology, 2007  
Ph.D., Massachusetts Institute of Technology, 2012

**Teaching Experience:**

Instructor, Universidad de los Andes, 2002-2005  
Teaching Assistant, Massachusetts Institute of Technology, 2007-2012  
Instructor of multiple computational design and fabrication workshop in universities including Cornell, Harvard, American University of Sharjah, and Universidad de los Andes. 2007-2012.  
Assistant Professor, Pennsylvania State University, 2012-present

**Professional Experience:**

Independent Architect, Bogotá, Colombia, 2002-2005  
Computational Design Specialist, Kohn Pedersen Fox, NY 2007  
Project Consultant and Researcher, Gehry Technologies, 2010-2011

**Licenses/Registration:**

Colombia

**Selected Publications and Recent Research:**

Algorithmic tectonics: how cold war era research shaped our imagination of design. AD (Architectural Design), 2013.

Inertia of an Automated Utopia: Design Commodities and Authorial Agency 40 years after "The Architecture Machine." Thresholds, 39. 2011

The Poetics of Automation: Conceptions of human and non-human agency in design. 4S: Society for the Social Studies of Science. Tokyo: 4S., 2010

Sigradi 2010 Conference Proceedings (as co-editor)

**Professional Memberships:**

Sociedad Colombiana de Arquitectos (Colombian Society of Architects)

**James G. Cooper M.Arch., M.Arch.H., PhD**

**Courses Taught (Two academic years prior to current visit):**

Fall 2011:

ARCH 121- Visual Communications

ARCH 231- Architectural Design I

Spring 2012:

ARCH 232- Architectural Design II

ARCH 497E- Drawing On Precedent

Summer 2012:

ARCH 499B- Analysis of Italian Architecture (Rome)

Fall 2012:

ARCH 121- Visual Communications

ARCH 231- Architectural Design I

Spring 2013:

ARCH 232- Architectural Design II

ARCH 497E- Drawing on Precedent

Summer 2013:

ARCH 499B- Analysis of Italian Architecture (Rome)

**Educational Credentials:**

B.Sc.Arch., Ryerson University Toronto, 1986

M. Arch., University of Michigan, 1992

M.Arch.H., University of Virginia, 1996

Ph.D., University of Virginia, 2002

**Teaching Experience:**

Assistant Professor, Syracuse University, 2001-2007

Assistant Professor, Penn State University, 1997-2013

Associate Professor, Penn State University, 2013-present

**Professional Experience:**

Architectural Designer, NORR Partnership Ltd., Toronto 1986-1990

Architectural Designer, NORR Partnership Ltd., Toronto, 1992-1994

**Selected Publications and Recent Research:**

James Cooper, "Michelangelo's Laurentian Library: Drawings and Design Process." Architectural History, Annual Journal of the Society of Architectural Historians of Great Britain Vol. 54: 2011, September 2011, pp. 49-90.

James Cooper, "Two Drawings by Michelangelo for an Early Design of the Palazzo dei Conservatori." Journal of the Society of Architectural Historians (JSAH), June 2008, pp. 178-203.

**Professional Memberships:**

Society Of Architectural Historians

**Denise R. Costanzo, PhD**

**Courses Taught (Two academic years prior to current visit):**

ARCH 100 Architecture and Ideas  
ARCH 210 Introduction to Architecture and Planning Theories  
ARCH 311W Architecture and Planning Theories

**Educational Credentials:**

B.E.D., Texas A&M University, 1992  
M.A., Penn State University, 1999  
Ph.D., Penn State University, 2009

**Teaching Experience:**

Instructor, Penn State University, Fall 2002, 2007, 2008 (Dept. of Architecture)  
Instructor, Penn State University, Spring 2004 (Dept. of Art History)  
Visiting Assistant Professor, Penn State University, 2009-2012  
Assistant Professor, Penn State University, 2012-present

**Professional Experience:**

Intern, Cooper & Associates, Fairfield, CA 1989-1991 (summers)  
Architectural Drafting and Design, W.S. Allen and Associates, Bryan, TX 1992-1994

**Licenses/Registration:**

none

**Selected Publications and Recent Research:**

*American Architects, Postwar Rome, and a Liberal Academy*: Book project based on dissertation, "The Lessons of Rome: Architects at the American Academy, 1947-1966" (2009).

"Text, Lies and Architecture: Colin Rowe, Robert Venturi and Mannerism," accepted for publication by *Journal of Architecture*, March 2013.

"Tours, Trips and Study Abroad: Instructive Displacements" in Joan Ockman, ed., *Architecture School: Three Centuries of Architects in North America*. ACSA Centennial publication (Cambridge, MA: the MIT Press, 2012).

"Architectural Amnesia: George Howe, Mario De Renzi, and the U.S. Consulate in Naples," *Memoirs of the American Academy in Rome* 55-56 (2011-2012): 353-389.

"Venturi and Scott Brown as Functionalists: Venustas and the Decorated Shed," *Wolkenkuckucksheim—Cloud Cuckoo-Land: International Journal of Architectural Theory* 17, no 1 (2012): 9-12. Special issue on "Function—Purpose—Use in Architecture and Urbanism." [http://www.tu-cottbus.de/theoriederarchitektur/Wolke/wolke\\_neu/inhalt/en/issue/aktuell.php](http://www.tu-cottbus.de/theoriederarchitektur/Wolke/wolke_neu/inhalt/en/issue/aktuell.php)

"Baroque in Translation: Giedion's History for Modern Architects," *Proceedings of the 2nd Annual Meeting of the European Architectural History Network*, Brussels, Belgium (May, 2012): 410-14.

**Professional Memberships:**

Society of Architectural Historians  
European Architectural History Network  
College Art Association

**Raymond Gastil**

**Courses Taught (Two academic years prior to current visit):**

ARCH 431 Architectural Design V  
ARCH 432 Architectural Design VI  
ARCH 497 Seminar - Campus Urbanism  
ARCH 491 Architectural Design VII–Thesis

**Educational Credentials:**

B.A. Literature. Yale University, 1980  
M. Arch., Princeton University, 1991

**Teaching Experience:**

PennDesign. Visiting Lecturer (Studio Critic): 1995  
Pratt Institute, Visiting Lecturer (Studio Critic): 1997  
PennDesign. Visiting Lecturer: 2000, 2004  
University of Washington: Department of Landscape Architecture, Affiliate Faculty (Honorary), 2010–present  
Chair in Design Innovation and Visiting Professor, Penn State, 2011-present

**Professional Experience:**

Writer-Researcher, Robert A.M. Stern Architects, 1985-88  
Intern, Ralph Lerner Architects, 1989  
Executive Director, Van Alen Institute: Projects in Public Architecture, 1995-2004  
Manhattan Director, Department of City Planning, 2005-2008  
Planning Director, Department of Planning and Development, City of Seattle, 2008-2010  
Gastilworks Planning & Design, Consulting. 2010 – present

**Licenses/Registration:**

AICP  
LEED AP ND

**Selected Publications and Recent Research:**

*Success Looks Different Now: Design and Cultural Vitality in Lower Manhattan* (Architectural League, 2013)

Faculty Coordinator and Contributor: *Broadway: 1000 Steps – Designs for Incremental Urbanism* (Penn State studio publication, 2013)

“Prospect Parks: Walking the Promenade plantée and the High Line.” *Studies in the History of Gardens and Designed Landscapes*. July 2013

*Campus Urbanism*. Glass House Conversations. Jan. – Feb. 2013. Web. Host and Discussant.

*Urban Intervention*. Competition Manager. International design competition for AIA Seattle/Seattle Center. 2011-2012.

**Professional Memberships:**

American Planning Association

**Christine Gorby**

**Courses Taught (Two academic years prior to current visit):**

ARCH 491 Architectural Design VII-Thesis  
ARCH 492 Architectural Design VII-Thesis  
ARCH 316 Analysis of Human Settlements: Cities  
ARCH 497 Interior Architecture-Gender, Disability Studies and Sustainability

**Educational Credentials:**

Georgia Institute of Technology. School of Management, Bachelor of Science Industrial Management, Minor in Finance, Degree completed June 1981.  
Georgia Institute of Technology. School of Architecture, Second Degree Graduate Program, Sept 1981 to June 1984.  
Harvard University. Graduate School of Design, Master of Architecture, Degree completed Jan 1988.

**Teaching Experience:**

Teaching Assistant (Robin Evans), Harvard University, Jan-April 1987.  
Teaching Fellow (Clive Dilnot), Harvard University, Jan-April 1988.  
Research Fellow (Clive Dilnot & John Heskett), Harvard University, April 1988-May 1989.  
Assistant Professor of Architecture. Department of Architecture, Ball State University, Aug 1995-May 1997.  
Associate Professor of Architecture, Department of Architecture, Penn State University, 1997- Present.

**Professional Experience (select):**

Scogin Elam Bray Architects. Atlanta GA, June 1987-Sept 1987.  
Colin St. John Wilson and Associates, London UK, Nov 1990-Dec 1991.  
Venturi Scott Brown and Associates, Philadelphia, PA, May 1993-Feb 1995.

**Licenses/Registration:**

Architects' Registration Council of the United Kingdom (A.R.C.U.K.)  
Elected to the Royal Institute of British Architects (R.I.B.A.)

**Selected Publications and Recent Research:**

*Studies in the Interpretation of Historic Spiritual Landscapes* (University of Chicago Press, 2014)

*Preserving and Place-Based Historic Consciousness: New Harmony, Indiana, as an Evolving Commemorative Environment* (University of Chicago Press, 2014)

*Environmentally Conscious Design: Educating Future Architects* (International Journal of Sustainability in Higher Education, 2014)

**Denson Groenendaal, RA**

**Courses Taught: (Two academic years prior to current visit):**

ARCH 130A Fall: Basic Design & Research Studio for 2nd yr. AE design students

ARCH 130A Spring: Basic Design & Research Studio for 3<sup>rd</sup> yr. AE design students

**Educational Credentials:**

B.S. "Comprehensive Science", College of Science, The Pennsylvania State University, 1965

M. Ed. "Physical Science & Education", West Chester State University, West Chester, PA, 1971

Masters: Ecological Planning & Design, (Design with Nature), Graduate School of Fine Arts,  
University of Pennsylvania, 1976 (Professional degree)

**Teaching Experience:**

Visiting Lecturer for Arch. Studio Instructorship, Pennsylvania State University, 1977-1979

Research Associate in Arch., Pennsylvania State University, University Park, PA 1979-1982

Assistant Professor in Architecture, Pennsylvania State University, 1984-1991

Instructor of Architecture, Stuckeman School & AE, Pennsylvania State University, 2006-2013

**Professional Experience:**

Consulting: Planning & Architectural, Denson Groenendaal (& Associates), since 1976

Planner-in-Charge, Director of Planning, and Project Manager, since 1977. (various locales)

Groenendaal & Walmer, Planning & Architecture, in Pennsylvania, 1983 -2009

**Selected Publications and Recent Research:**

*Pennsylvania Preservation Technology Project*, Research Director at PSU for PHMC 1980-82

*Preservation Maintenance and Historic Rehabilitation of Historic Buildings*, PSU, PHMC, 1981

*Broad Top Soil & Water Conservation Project*, Ecological analysis, study & base data, 1982-2012

*Juniata Woolen Mill & Newry Manor*, Lutzville, PA, National Register, documentation, rehab. 1982

*The Mill at Anselma*, Lightfoot Mill c. 1747, (HSR) National Treasure, Chester Springs, PA, 1983

*McBurney Manor, Bake Oven, Store, McAlevys Fort*, Historic American Building Survey, (HABS),  
Research and documentation with drawing folio submitted to HABS, Washington, DC. 1986.

*Easton House Tavern*, Historic Structures Report, (Documentation & Design), Easton PA, 1989

*Endangered Buildings*, 4 units, Huntingdon C'nty, PA, Documentation design & pro Forma, 1994

*Sarah Furnace Grist Mill*, Sproul, PA, Historic Structures Report w/pro Forma, adaptive use, 1994

*Spangler Farmstead*, (HSR) Gettysburg National Military Battlefield (National Park Service, 1999

*Patterson House* (HSR) Gettysburg National Military Battlefield (National Park Service), 1998

*Benner-Linn House, Historic Structures Report (HSR)*, Documentation & Design, Bellefonte 2003

*Felix Dam*, Recordation & Historical Interpretations, on Schuylkill Navigation Canal, Reading, PA,  
Research & documentation to standards of the Historic American Engineering Record, 2001-05

*Union Depot*, Huntingdon, PA "Conditions Analysis with Pro Forma", adaptive re-use, Code, 2010

*Embassy Theatre*, Lewistown, PA (a National Treasure), Historical Rehabilitation, 2010, 2013

**Mehrdad Hadighi, RA**

**Courses Taught (Two academic years prior to current visit):**

Department Head

**Educational Credentials:**

B. Arch., University of Maryland, 1983

B.F.A., University of Maryland, 1983

M.Arch., Cornell University, 1987

**Teaching Experience:**

Assistant Professor, State University of New York at Buffalo, 1994-1998

Associate Professor, State University of New York at Buffalo, 1998-2009

Professor, State University of New York at Buffalo, 2009-2011

Professor, Pennsylvania State University, 2012-present

**Professional Experience:**

Registered Architect in private practice: Studio for Architecture, 1991-present

**Licenses/Registration:**

New York

**Selected Publications and Recent Research:**

Mehrdad Hadighi, "Artist as Analyst, The Relationship of Architecture and Art", *The Architect's Role*, winter 2013, p 69-74.

"Concrete Goes Green in China", *PHAIDON*, March 2013.

[http://www.phaidon.com/agenda/architecture/articles/2013/march/05/concrete-goes-green-in-china/?utm\\_source=cheetah&utm\\_medium=email&utm\\_campaign=NL060313](http://www.phaidon.com/agenda/architecture/articles/2013/march/05/concrete-goes-green-in-china/?utm_source=cheetah&utm_medium=email&utm_campaign=NL060313)

Kelsey Campbell-Dollaghan, "A Modern Chinese Factory Made Using Local Traditional Building Techniques", *FastCompanyDesign*, February 2013: <http://www.fastcodesign.com/1671851/a-modern-chinese-factory-made-using-local-traditional-building-techniques#1>

Mehrdad Hadighi, "Problem Solving through Problem Seeking" Mehrdad Hadighi in interview with *HAMSHAHRI, HAMSHAHRI MEMARI*, Vol 19, August 2012, p60-71.

Seda Gul, "The Movement of Light Coming from the façade", the Lafayette 148 Headquarters, *TASIRIM*, Volume 223, July/August 2012, p 50-51.

Marc Neveu, "Best of the Week", *Domuswebnews*, May 13, 2012:

<http://domusweb.it/en/news/best-of-the-week>

Marc Neveu, "Lafayette 148 Headquarters", *DOMUS*, Volume 958, May 2012, p112-113.

Mehrdad Hadighi, ed, *Banham in Buffalo*, ORO Editions, San Francisco, 2011.

Adrian Welch, "A Few High Notes from 2010", *e-architect*, volume #86, January 4, 2011: <https://www.swiftpage8.com/speasapage.aspx?X=300U5LVEHZSJLBQ800NLWZ>

Mehrdad Hadighi, "Architecture-Archaeology-Archive", *CRAVENS WORLD*, Anderson Gallery, 2010, P34-37

Mehrdad Hadighi, "Introduction" *Ways of Working*, O'Donnell & Tuomey, buffaloBOOKS, 2010.

Yuan Jing, "Architecture of Fashion", in *Numéro*, le magazine international de mode, Nov. 2010.

Isabelle Lomholt, "Lafayette 148", *e-architect*, volume #84, November 9, 2010:

[http://www.e-architect.co.uk/china/lafayette\\_148\\_shantou.htm](http://www.e-architect.co.uk/china/lafayette_148_shantou.htm)

Mehrdad Hadighi, "Introduction" *Beginnings*, MOS, buffaloBOOKS, 2009.

Simone Schleifer, ed, *Ristrutturazioni da Vivere*, "Tall Acres", FKG Publications, Spain, 2008.

Mehrdad Hadighi, "Introduction" *Continuity of Contradiction Thom Mayne*, buffaloBOOKS, 2008.

Ramin Rad, *Mehrdad Hadighi*, Sharestan, Tehran, 2008.



**Jawaid Haider, PhD**

**Courses Taught (Two academic years prior to current visit):**

Arch 312 Critical Postcolonial And Contemporary Perspectives in South Asian Architecture  
Arch 491 **Architectural Design VII – Thesis**  
Arch 492 **Architectural Design VIII - Thesis**  
Arch 511 Theoretical Perspectives in Architecture  
Arch 591 Architectural Research  
Arch 600 Thesis

**Educational Credentials:**

B.Arch., Middle East Technical University, Ankara, Turkey, 1974  
PhD, Architecture and Humanities, Penn State University, 1986

**Teaching Experience:**

Instructor/Assistant Professor, Dawood College, 1977-1983, Penn State 1984-87  
Associate Professor, Dawood College, 1987-1989 Penn State University, 1989-1997  
Professor, Penn State University 1997-present

**Professional Experience:**

Intern/Architectural Designer, Theissen and Partners, Berlin, Germany 1974-1977  
Principal, Comprehensive Design Collaborative, Karachi 1977-1983

**Licenses/Registration:**

PCATP, Karachi, 1987-present

**Selected Publications and Recent Research:**

Active Living in Small Town America: An Approach to Parks and Recreation Planning and Design. *History of Gardens and Designed Landscapes*, February 2014 (first author with three others).

From Dubai to Mofussilabad: Small Towns and Architectural Spectacle in South Asia, *Life in Small Towns*, THAAP 2013.

Active Living in Parks and Recreation Systems: Strategies for Planning and Design Connectivities, *Arte-Polis 4: creative connectivity and the making of place*, 2012.

Street Children and The Right To Public Space: Toward Inclusive Urban Design and Planning, *Portrait of Lahore*, THAAP 2012.

Toward an Analytic Framework for Active Living Strategies in Parks and Recreation Systems, *Considering Research*, ARCC 2011.

Sustainable Design Standards In India: The Excluded Issues. *8th International Conference for Enhanced Building Operations Berlin, Conference Proceedings*, October 2008 (second author with Gupta).

Environmental Design Perspectives on Intergenerational Programs and Practices: An Emergent Conceptual Framework. *Journal of Intergenerational Relations*, Fall 2007.

Inclusive design: planning public urban spaces for children. *ICE: Proceedings of the Institution of Civil Engineers*, London, June 2007.

*Strategies for Active Living in Small Town Environments*, Ongoing grant from the College of Arts & Architecture, The Pennsylvania State University. Amount: \$19,600.

*Planning and Design Strategies for Healthy Living, Parks and Recreation in the Pottstown Area*. Pottstown Area Health and Wellness Foundation grant completed in 2011. Amount \$ 235,161.

**Professional Memberships:**

The American Institute of Architects (AIA), Associate  
Institute of Architects, Karachi, Fellow (FIAP)

**Rebecca L. Henn, PhD, RA, LEED AP**

**Courses Taught (Two academic years prior to current visit):**

ARCH 131 Basic Design Studio  
ARCH 132 Basic Design Studio  
ARCH 311w Architectural and Planning Theories  
ARCH 331 Architectural Design Studio

**Educational Credentials:**

B.Arch., Carnegie Mellon University, 1993  
M.Des.S., Harvard University, 2006  
Ph.D., University of Michigan, 2013 (exp.)

**Teaching Experience:**

Instructor, Phipps Conservatory and Botanical Gardens, 2001-2005  
Adjunct Assistant Professor, Carnegie Mellon University, 2004-2005  
Graduate Student Instructor, University of Michigan, 2007-2008  
Assistant Professor, The Pennsylvania State University, 2008-present

**Professional Experience:**

Intern & Project Architect, Bohlin Cywinski Jackson, 1994-1997  
Project Architect, Richard Gluckman Architects, 1997  
Project Architect, Celento Design, 1998-2000  
Principal, Celento Henn Architects + Designers, 2000-2005  
Research Associate, BuildingGreen, Inc, 2006

**Licenses/Registration:**

New York, Pennsylvania

**Selected Publications and Recent Research:**

*Constructing Green: The Social Structures of Sustainability* (MIT Press, 2013), with Andrew J. Hoffman

"Border Patrol: Professional Jurisdictions in Sustainable Urban Environments." *Architectural Research Centers Consortium Journal* (2013)

"LivingHomes." In Jost Hamschmidt and Michael Pirson (eds.), *Case Studies in Social Entrepreneurship and Sustainability* (Greenleaf Publishing, 2011)

"From Border Skirmishes to Strategic Alliances: Barriers to Design Innovation and Collaboration Between Architects and Engineers, and an Opportunity for Moving Beyond Them," *Innovation in Architecture, Engineering and Construction Conference Proceedings* (2010), with Daniel E. Willis, Timothy W. Simpson, Samuel T. Hunter, Matthew B. Parkinson, David J. Celento, Russell R. Barton, and Sandeep Purao.

"Overcoming the Social and Psychological Barriers to Green Building." *Organization & Environment*. 21(4): 390-419. (2008), with Andrew J. Hoffman.

"Red House Communications," *Pittsburgh Platforms Exhibit* (Heinz Architectural Center, Carnegie Museum of Art, 2003), with David Celento.

"1:2|1:3" *Pittsburgh Center for the Arts Biennial*, (2003), with David Celento.

**Robert J. Holland, AIA**

**Courses Taught (Two academic years prior to current visit):**

ARCH 441 Architectural Design Analysis (4<sup>th</sup> Year Arch Studio for AE)  
ARCH 442.2/3 Integrated Collaborative BIM Studio (Arch, LArch, AE)  
ARCH 451 Professional Practice  
AE 481W: Architectural Engineering Capstone Project I  
AE 482: Architectural Engineering Capstone Project II

**Educational Credentials:**

B.Arch. with Honors, The Pennsylvania State University, 1973  
M.Arch., The Ohio State University, 1974

**Teaching Experience:**

Associate Professor of Practice of Architecture and Architectural Engineering, The Pennsylvania State University, University Park, PA, 2006-2013

**Professional Experience:**

Hospital Designer / Planner, The Veterans Administration, Washington, DC, Palo Alto, CA 1974-1979  
Project Manager, Director, Vice President of Resort Development, Walt Disney Imagineering, Los Angeles, CA, Orlando, FL, Paris, France, Hong Kong, SAR, Venice Italy, 1979-2006

**Licenses/Registration:**

Architect: California, Florida, NCARB

**Selected Publications and Recent Research:**

Book Chapter (co-author): *“Educating the Master Building Team: Leveraging BIM to Enable the Development of Collaborative Knowledge”*, published in *“BIM in Academia”*, (Yale School of Architecture, 2010)

Juried Accepted Paper (co-author): Results of a Pilot Multidisciplinary BIM-Enhanced Integrated Project Delivery Capstone Engineering Design Course in Architectural Engineering, Architectural Engineering Institute Conference, University Park, PA (conference proceedings, 2013)

Juried Accepted Paper (co-author): *“Interdisciplinary Collaborative BIM Studio”*, NIBS smartBuilding Alliance Conference, Washington, DC (conference proceedings, 2012)

Juried Accepted Paper (co-author): *“GIS + BIM = Integrated Project Delivery at Penn State”*, Digital Landscape Architecture Conference, Bernburg / Dessau, Germany (conference proceedings, 2012)

Juried Accepted Paper (co-author), *“Building Information Modeling (BIM) and the Impact on Design Quality”*, (Architectural Engineering Technology Journal, 2011)

Juried Accepted Paper (co-author), *“BIM Collaboration Across Six Disciplines”*, Computing in Civil and Building Engineering, 13th International Conference on Computing in Civil and Building Engineering ICCBE, Nottingham, UK (conference proceedings, 2010)

Research Interest: Integrated Project Delivery

**Professional Memberships:**

The American Institute of Architects

**John Dixon Hunt**

**Courses Taught (Two academic years prior to current visit):**

LARCH 497A Topics and Texts  
LARCH 423.3/510.3 Historical Ground

**Educational Credentials:**

Hon.D.Litt, Ph.D. (University of Bristol, UK)  
M.A., B.A. (University of Cambridge, King's College)

**Teaching Experience:**

University of Michigan 1959-60  
Vassar College 1960-62  
University of Exeter 1962-64  
University of York 1964-77  
Bedford College, London University 1977- 1986  
Leiden University, The Netherlands 1986-89  
University of East Anglia 1989-92  
Dumbarton Oaks (Harvard University) 1992-94  
University of Pennsylvania 1994-2009  
Visiting Professor, GSD Harvard 2010-14  
Penn State Eleanor R Stuckeman Visiting Chair in Design 2013-14

**Licenses/Registration:**

None

**Selected Publications and Recent Research:**

*A World of Gardens*, Reaktion Books, 2012.

*Greater Perfections. The Practice of Garden Theory*, Penn Studies in Landscape Architecture, University of Pennsylvania Press with Thames & Hudson, 2000.

*William Kent: landscape garden architect. An assessment and catalogue raisonné*, Philip Wilson Publishers, 1987.

*The Afterlife of Gardens*, Reaktion Books, 2004

*The Venetian City Garden. Place, Identity, and Perception*, Birkhauser, 2009.

*Sette lezioni sul Paesaggio*, translated and edited by Valerio Morabito, Casa editrice Libria, 2012

*A Cultural History of Gardens*, 6 volumes, general editor jointly with Michael Leslie, Bloomsbury, London.

**Lisa D. Iulo, RA, Professional Planner, LEED®-AP**

**Courses Taught (Two academic years prior to current visit):**

ARCH 432 Architectural Design V  
ARCH 497 Integrative Energy and Environmental Design  
ARCH 431 Architectural Design IV

**Educational Credentials:**

B.Arch., New York Institute of Technology, 1995  
M.Urban Planning, CUNY City College of New York, 2002

**Teaching Experience:**

Adjunct Professor of Architecture, New York Institute of Technology, 2000-2003  
Assistant Professor, Pennsylvania State University, 2003-2012  
Associate Professor, Pennsylvania State University, 2012-present

**Licenses/Registration:**

Registered Architect: New Jersey, New York, Pennsylvania  
Licensed Professional Planner: New Jersey  
LEED®AP: National Credential

**Selected Publications and Recent Research:**

“Environmentally Conscious Design: Educating Future Architects” (*International Journal of Sustainability in Higher Education*, 2014).

*Social and Environmental Indicators for Energy Efficient Housing*

“Variable Considerations for Community-scale Renewable Energy Solutions” forum presentation (American Solar Energy Society annual conference, 19 April 2013, Baltimore, MD).

“Lessons Learned from Retrofitting Existing Housing for Energy Efficiency” (Proceedings of the 1<sup>st</sup> Residential Building Design and Construction conference).

*Influencing Home Energy Expenses related to construction and operation of affordable housing.*

“Modular Housing – Three Scales, Three Strategies” in *High Performance Homes: Building Envelopes, Renewable Energies + Integrated Practice* (Routledge, 2013).

“Energy and the Integrative Design Process – Defining the Team of Experts” in *High Performance Homes: Building Envelopes, Renewable Energies + Integrated Practice* (Routledge, 2013).

*Effects of collaboration on Integrated Design and the Integrative Design Process*

“Green Infill Housing: envisioning a modular kit of parts” (Proceedings of the ACSA Fall Regional Conference: *OFFSITE: Theory and Practice of Architectural Production*, 2013).

“Comparative Evaluation of Structural and Water Penetration Performance of Sustainable Masonry Walls for Residential Construction” (*International Journal of Civil Engineering Science*, 2012).

*Development of an interface for understanding energy implications related to High Performance Affordable Housing*

*Sustainable Design Specialist consulting on the design and construction methods for four highly energy efficient homes for the Union County Housing Authority Energy Efficient Housing Program, completed 2011.*

*Teaching Environmentally Conscious Design in Architectural Education*

**Professional Memberships:**

Society of Building Science Educators; The American Solar Energy Society; Green Building Association of Central Pennsylvania

**Loukas Kalisperis, PhD**

**Courses Taught (Two academic years prior to current visit):**

ARCH 231 Architectural Design I  
ARCH 232 Architectural Design II  
ARCH 481 Digital Design Media

**Educational Credentials:**

B.Arch., New York Institute of Technology, 1983  
M.S.A.E., Pennsylvania State University, 1985  
PhD, Pennsylvania State University, 1988

**Teaching Experience:**

Assistant Professor, Pennsylvania State University, 1989-1992  
Associate Professor, Pennsylvania State University, 1992-2000  
Professor, Pennsylvania State University, 2000-present  
Professor, The Cyprus Institute, Nicosia, Cyprus, 2007-present  
Professor, National Technical University of Athens, Greece, 2001-present

**Professional Experience:**

CAD Consultant - Omeros Architects, Athens, Greece, 1983-1989  
Design/Research Consultant - CDA International, Architect, State College, PA, 1987-1989  
Co-Principal - ErgoTechnica, Architects, Part Time - Athens, Greece, 1991-present

**Licenses/Registration:**

Greece, Registration #57633

**Selected Publications and Recent Research:**

Kalisperis, L., B. Balakrishnan, K. Muramoto, D. Nikolic, and N. Zikic "Evaluating Relative Impact of Virtual Reality System Variables on Architectural Design Comprehension and Presence," eCAADe 2006, pp 66-73

Poerschke, U., L. Kalisperis, "Integrating Energy Simulation Applications and Building Information Modeling in the Design Studio," WITPress, Oxford:UK, 2008

Kalisperis, L. "Architectural Education in the Era of Information," JUCy, The Journal of the University of Cyprus, 1:1, 96-111, 2008

Hermon, S., and L. Kalisperis, "Between the Real and the Virtual: 3D visualization in the archaeological research -- expectations and prospects", Arqueologia 2.0, , Spain, 2009

Ioannidis, M., Addison, A., Georgakopoulos, A., and Kalisperis, L., "Documenting, Archiving, Preserving and Visualizing Digital Cultural Heritage," IJAC, 01:07, 2009

Ioannidis, M., Addison, A., Georgakopoulos, A., Kalisperis, L., Brown, A., and Pitzalis, D. *Heritage in the Digital Era*, Essex, UK: Multi-Science, 2010

Poerschke, U., Kalisperis, L., Santamouris, M., Spanou, A., "Design Approaches for Upgrading Historically Significant Architecture Toward Zero-Energy: The Republic of Cyprus Presidential Palace." in Architecture and Sustainable Development, PLEA Presses, July 2011

**Professional Memberships:**

Greek Institute of Architects  
Hellenic Republic, National Council on Education, External Committee Member, 2006-present  
VISTA, ACADIA, eCAADe, SIGRADI, CIPA, VSMM, VAST, IJAC Scientific Committee Member  
Association for Computer Aided Design in Architecture (ACADIA), MeSteering Committee Member, 1995-97, 2002-04, 2008-10, ACADIA'95 Co-Editor, Co-Chair

**James Kalsbeek**

**Courses Taught (Two academic years prior to current visit):**

ARCH 131s Basic Design Studio I  
ARCH 132 Basic Design Studio II  
ARCH 497e Building Material Reclamation & Reuse  
ARCH 497g Building & Time

**Educational Credentials:**

B.Arch., University of Cincinnati, 1985  
M.S. Arch., University of Cincinnati, 1989

**Teaching Experience:**

Instructor, University of Cincinnati, 1984-1986  
Adjunct Assistant Professor, University of Cincinnati, 1987-1990  
Assistant Professor, Penn State, 1990-1997  
Associate Professor, Penn State, 1997-present

**Professional Experience:**

Intern, Marks, Cooke, Shack, Thomas, Baltimore, MD 1980-1981  
Intern, City of Cincinnati, Cincinnati OH 1981-82  
Intern, Kohn, Pedersen Fox, New York, NY 1982-1983  
Intern, Doepke/Lesniewicz, Cincinnati, OH 1983  
Designer, Eric Doepke & Associates, Cincinnati, OH 1984-1986  
Project Architect, Jones and Speer, Cincinnati, OH 1987-1990

**Licenses/Registration:**

Ohio (1987)

**Selected Publications and Recent Research:**

*Eroici Furori: la Vita di Giordano Bruno* (consultant and featured expert for this documentary film, directed by Terry Inglese, produced by Kinokifilm, Lugano, 2005)

*The Last Dance: Architectural Hospice and the Palliative Care of Buildings* (paper delivered to DeCON, Madison, WI, 2007)

*Learning & Remembering With Your Body: Performance Art Pedagogy and the Mnemonic Method of Place Applied to Education Abroad* (Astorino Teaching Fellowship, with Renee Kredell, Dept of Theatre, 2009)

*The Weight We Carry: The Hazardous Legacy of our Past and The Rehabilitation of Lead Contaminated Sites* (Stuckeman Fund for Collaborative Design Research, 2012)

**Jodi La Coe**

**Courses Taught (Two academic years prior to current visit):**

ARCH 122: Visual Communications II  
ARCH 131S: Basic Design Studio I  
ARCH 132: Basic Design Studio II  
ARCH 497D: Architectural Salvage and Reuse  
ARCH 497B: Portfolio Making  
ARCH 600: Thesis Research

**Educational Credentials:**

B.Arch., The Pennsylvania State University, 1994  
B.S. in Arch., The Pennsylvania State University, 1994  
M.Arch., History and Theory of Architecture, McGill University, 2000

**Teaching Experience:**

Instructor, The Pennsylvania State University, 2003–2005  
Assistant Professor, The Pennsylvania State University, 2005–present

**Licenses/Registration:**

None

**Selected Publications and Recent Research:**

Zoltán Radó, Daniel Linzell, Jodi La Coe, and Tong Qiu. *Research, Development, Testing and Evaluation [RDT&E] of Vehicle Anti-Ram Barriers*, U.S. Department of State, Bureau of Diplomatic Security, Physical Security Division, Office of Physical Security Programs, (Total upper bound over 5 years, since 08/20/2010: \$6,976,672.00; Amount Awarded 2012/13: \$898,480.00)

La Coe, Jodi. "Memento Mori and the Primacy of Recollection in Architectural Meaning," in *Int|AR [Interventions|Adaptive Reuse], Difficult Memories : Reconciling Meaning*, Markus Berger, Maya Marx, and Liliane Wong, eds., (Rhode Island School of Design, 2013)

La Coe, Jodi, Zoltan Radó, Daniel Linzell, Sean Brennan, Tong Qiu, and Jessica Inman. *Perimeter Protection Streetscape Handbook*, (The United States Department of State, 2013)

La Coe, Jodi, ed. *Proceedings of 28th National Conference of the Beginning Design Student [NCBDS], End of/in the Beginning: Realizing the Sustainable Imagination*, (The Pennsylvania State University, 2012)

La Coe, Jodi, Caru Bowns, Jamie Cooper, Keith Cummings, Renee Kredell, Andy Lau, Katarin Parizek, Cecilia Rusnak, Marcus Shaffer and Timothy Simpson. "End of/in the Beginning: Realizing the Sustainable Imagination," in *Proceedings of 28th National Conference of the Beginning Design Student [NCBDS], End of/in the Beginning: Realizing the Sustainable Imagination*, (The Pennsylvania State University, 2012)

La Coe, Jodi, Andy Lau, Reggie Aviles, Katarin Parizek and Keith Cummings, "Green Dorm Projects: Excursions into Interdisciplinary Collaborative Charrettes for Sustainable Design Foundations," in *Proceedings of 28th National Conference of the Beginning Design Student [NCBDS], End of/in the Beginning: Realizing the Sustainable Imagination*, (The Pennsylvania State University, 2012)

La Coe, Jodi. "Sustainable Design/Build Pedagogy: Materials Reuse," presentation at the International Conference on Construction, Architecture and Engineering, Athens Institute for Education and Research [ATINER], Athens, Greece, June 20-22, 2011.

**Professional Memberships:**

Co-Director, Research Office for Novice Design Education, LSU, 2010–present  
Member, Design Review Board, State College Borough, 2012–present



**Darla V. Lindberg, RA**

**Courses Taught (Two academic years prior to current visit):**

ARCH 491 Architecture Design Thesis I  
ARCH 492 Architecture Design Thesis II  
ARCH 542 Topics in Community Design  
A&A 110 Interdisciplinary Digital Media Studio

**Educational Credentials:**

B.Arch., North Dakota State University, 1980  
M.Arch., Iowa State University, 1990

**Teaching Experience:**

Adjunct Professor, North Dakota State University, 1984-1988  
Graduate Teaching Assistant, Iowa State University, 1989-1990  
Assistant Professor, University of Utah, 1990-1995  
Assistant Professor, Pennsylvania State University, 1995-1999  
Associate Professor, Pennsylvania State University, 1999-2012  
Professor, Pennsylvania State University, 2012-present

**Professional Experience:**

Intern, Mutchler Twitchell & Lynch, PC, Fargo, ND, 1978-1980  
Project Architect, Clark Holman & Moorhead, Ltd., Fargo, ND, 1980-1985  
Principal Architect, Berreth Lindberg Berreth Architects, Fargo, ND, 1985-1988  
Principal Architect, 545architect, State College, PA, 1995-present

**Licenses/Registration:**

North Dakota, 1985, #940  
NCARB, 1985, #33801

**Selected Publications and Recent Research:**

*Examining Policy Resistance and Infectious Disease with Dynamic Network Conditions at the U.S./Mexico Border*, (National Institutes of Health/Fogarty International Center grant\_1R21 TW008378 01\_Darla Lindberg, PI, 2009 to present).

*Global Forces + Local Factors: Design Responses to Policy Failure*, (ACSA, I Am a Second Responder Competition, ARCHIVE Competition Winner\_2011).

*Global Forces + Local Factors: advancing policy formation as a function of feedbacks between behavioral and environmental indeterminate systems*, (*Vulnerability and Adaptation: Focus – Marginal Peoples and Environments Proceedings*. ICARUS II Conference. School of Natural Resources and Environment, University of Michigan, May 2011).

*The systems theory of community health and infectious diseases*, (*Journal of the Royal Society Interface*, submitted February 26, 2013). Under review.

*Modernizing the Tobacco-Barn Look*, *American Builders Quarterly*, April/May/June 2013  
*545architect*, Design Bureau, Forthcoming Sept/Oct issue, 2013

**Professional Memberships:**

Invited Member, Oxford Round Table, Oxford University, England  
Co-Founder, Center for Infectious Disease Dynamics (CIDDD), Pennsylvania State University  
IFT Scientific Journals Peer Reviewer, JFS/ JFSE/ CRFSFS journals, 2005 to present.

**Moses D.F. Ling, PE RA**

**Courses Taught (Two academic years prior to current visit):**

AE202 (Fall 2011) Introduction to Building Mechanical Systems (3 credits)  
AE211 (Fall 2011) Introduction to Environmental Control Systems (3 credits)  
AE310 (Spring 2012) Fundamentals of Heating, Ventilating and Air-Conditioning (3 credits)  
AE424 (Spring 2012) Environmental Control Systems (3 credits)  
AE202 (Fall 2012) Introduction to Building Mechanical Systems (3 credits)  
AE211 (Fall 2012) Introduction to Environmental Control Systems (3 credits)  
AE310 (Spring 2012) Fundamentals of Heating, Ventilating and Air-Conditioning (3 credits)  
AE424 (Spring 2012) Environmental Control Systems (3 credits)

**Educational Credentials:**

B.A.E. in Architectural Engineering, The Pennsylvania State University (1975)  
M.S. in Architectural Engineering, The Pennsylvania State University (1986)

**Teaching Experience:**

October 16, 1981 - Instructor  
July 1, 1985 - Assistant Professor of Architectural Engineering  
July 1, 2004 – Associate Professor of Architectural Engineering  
2003 to Current - Undergraduate Program Officer  
2003 to Current – Study Abroad Program Director for Rome, China and Singapore

**Professional Experience:**

Project Engineer, Leo Daly Company, Washington, D.C. (1975-1977)  
Project Engineer, Ellerbe Associates, Washington, D.C. (1977-1980)  
Project Engineer, Cannon Design, Inc., Grand Island, N.Y. (1981)  
Partner - Parfitt/Ling - Consulting Engineers, State College, PA (1996-2001)  
Principal - Ling Partnership, State College, PA (2001-2013)

**Licenses/Registration:**

Registered Professional Engineer in Pennsylvania and Virginia  
Inactive Registrations: Florida, New Hampshire, New York, Virginia, New Jersey, Maryland, Alabama,  
Arkansas, District of Columbia and Connecticut  
Registered Architect in New Jersey

**Professional Memberships:**

American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)  
American Institute of Architects-Middle Pennsylvania Chapter-Affiliate member. (AIA)  
LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN – LEED AP

**Katsuhiko Muramoto**

**Courses Taught (Two academic years prior to current visit):**

ARCH 317 Theory of Modern Japanese Architecture  
ARCH 332 Architectural Design IV  
ARCH 491 Architectural Design Thesis I  
ARCH 492 Architectural Design Thesis II  
ARCH 497K Re-thinking Sustainability – Globalization, Culture and Identity  
ARCH 536 Design Inquiry  
ARCH 600 Thesis Research

**Educational Credentials:**

BS. in Architecture & Architectural Engineering, Nihon University, 1977  
M.Arch., Cranbrook Academy of Art, 1982

**Teaching Experience:**

Visiting Lecturer, Carleton University, 1983-1986  
Assistant Professor, Carleton University, 1986-1987  
Visiting Assistant Professor, Penn State, 1987-1989  
Visiting Design Studio Instructor (summer), Technical University of Nova Scotia, 1992  
Assistant Professor, Penn State, 1989-1995  
Visiting Design Studio Instructor (winter), McGill University, 1996  
Visiting Design Studio Instructor (summer), Nihon University, 1999  
Visiting Design Studio Instructor (summer), Cornell University, 2002  
Associate Professor, Penn State, 1995-present

**Professional Experience:**

Intern, Hozumi Architect, 1976  
Intern and project architect, Ohbayashi Ltd., Osaka, 1977-78  
Architectural designer, Peter Eisenman Architects, 1982-83  
Architectural designer, Richard Meier and Partners, 1982-83  
Co-founder of the architectural design studio, Cover, LLC, Philadelphia, 2003-present

**Licenses/Registration:**

Osaka, Japan

**Selected Publications and Recent Research:**

2012: *"Mobile Augmented Reality: Context Aware Learning" 12<sup>th</sup> International Conference on Construction Application of Virtual Reality (CONVR) Proceedings*

Co-principal investigator (Dan Willis, sub-task leader and principal investigator), Sub-task 9-4:  
Architecture and Design, Department of Energy, Energy Efficient Building Hub.

Principal Investigator, "Anatomy of a Green House: Teaching Green with Augmented Reality" Stuckeman  
Fund for Design Computing

**Professional Memberships:**

Architectural Institute of Japan  
International Institute of Informatics and Systemics (IIS)  
Computer Sided Architectural Design in Asia (CAADRIA)  
Architectural and Civil Engineering Association, Kansai Region, Osaka

**Shadi Nazarian**

**Courses Taught (Two academic years prior to current visit):**

ARCH 503: Architectural Design Studio 3 (3.5-Year program)- SUNY at Buffalo (Fall 2011)  
ARCH 232: Architectural Design II (Spring 2012)  
ARCH 2312: Architectural Design I (Fall 2012)  
ARCH 497B: Portfolio Making, La Coe & Nazarian  
ARCH 497C/Matse 497E (cross Listed with Material Science Department- Spring 2013)  
ARCH 232: Architectural Design II – NCMA Competition

**Educational Credentials:**

B.ARCH (Professional degree), University of Minnesota, Minneapolis, MN, 1983  
Bachelor of Environmental Design, Univ. of Minnesota, Minneapolis, MN, 1983  
Post-professional M.ARCH, Major: Architectural design, Minor: Theory of Architecture, Cornell University, College of Architecture, Art and Planning, Ithaca, NY, 1989

**Teaching Experience:**

Visiting Assistant Professor of Architecture, Cornell University: 1999- 2002  
Clinical Associate Prof. of Architecture, State University of New York at Buffalo, 1994-99 and 2002-2011  
Associate Professor, Pennsylvania State University, Stuckeman school of Architecture, 2012-present

**Professional Experience:**

Architectural Designer, Demjanec & Wilson Architects, Ithaca, NY. 1988-89.  
Architectural Designer, Pei Cobb Freed & Partners, Architects, New York, N.Y. 1989-1992.  
Architectural Designer, Thomas Associates, Ithaca, New York 1993-1994.:  
Architectural Designer, Pei Cobb Freed & Partners, Architects, New York, N.Y. 1989-1992  
Architectural Designer, Demjanec & Wilson Architects, Ithaca, NY. 1988-89.

**Selected Publications and Contributions to Books/Recent Activity**

Nazarian, Romano, and Bruscia, "The Living Wall: A Microcosm of Design/Build Practice." The Building Technology Educator's Society Conference Proceedings. 2011

Murray, Timothy, «Convulsive Possessions: Relaiming Architectonic Surface, For Thought», Comentary article on «Introversions» by Shadi Nazarian, Center for the Arts Brochure Series, Buffalo, NY, 2008

Shadi Nazarian, "Future of Permanence," Cornell Journal of Architecture 7, 2003

Shadi Nazarian, "Thresholds; The Arcade Projects." CEPA JOURNAL, Ruins In Reverse; Time and Progress In Contemporary Art, Center for Exploratory and Perceptual Art, Buffalo, New York, 1999. P19- 21.

Hadighi, Nazarian, Tschapeller, "The Prize Winning Entries", Austrian Cultural Institute, New York, Haymon-Verlag, Innsbruck, Austria, 1993

**Most Recent Research & Creative Activity**

2012-present: "Liquid Thresholds": With an interest in Glass Science and Technology, I have established a cross-disciplinary workshop with professor Pantano, who is a mentor, providing guidance and resources. We have engaged students of architecture in a series of explorations using recycled glass, molten glass, ceramics, sand, and cement. We are exposing them to processes of molding, sintering, casting, laminating, kiln forming, and 3D printing of liquid-based substances to create new materials and structures for architecture.

2008: "Introversions": A multimedia, interactive, & site-specific installation at the CFA Amherst-NY, where the scalar and spatial relationship between the audience, site and material intervention and properties were strategized and tested. "INTROVERSIONS" is about the threshold of vision and perception, threshold of real and virtual, threshold of art, architecture, and technology.

**M. Kevin Parfitt, P.E., F.AEI**

**Courses Taught (Two academic years prior to current visit):**

AE 210 Architectural Structures I

Only courses taught to architecture students have been listed

**Educational Credentials:**

BAE, Penn State, 1975

ME (Civil), Cornell University, 1979

**Teaching Experience:**

Associate Professor, Penn State, 1981 - Present

**Professional Experience:**

Project Engineer, HLM (now Heery), Iowa City, IA 1975 - 1976

Project Structural Engineer, Raymond A. DiPasquale, Ithaca, NY 1976 - 1979

Asst. Chief Structural Engineer, BASCO, York, PA 1979 - 1981

P/L Consulting Engineers, State College, PA 1984 - 2001

**Licenses/Registration:**

Professional Engineer: Pennsylvania, New York, New Jersey, Maryland, Virginia, Ohio

**Selected Publications and Recent Research:**

Boothby, Thomas E., Parfitt, M. Kevin, Ketchum, Mark. "Milo S. Ketchum and Thin-shell Concrete Structures in Colorado". APT Bulletin, Vol. XLIII, No. 1, 2012, The Association of Preservation Technology, Inc. pp. 39 - 46. **Received Anne de Fort-Menares Best Paper Award.**

Parfitt, M. Kevin. "Why Buildings Fail: Are We Learning From Our Mistakes?" Buildings - Special Issue on Building Failures, Vol 2, no. 3: 326-331 (Sept. 2012).

Parfitt, M. Kevin. Creating Better Buildings Through Failures Education: Wikis, Forums, Synths, Tweets, Case Studies and Discussion Boards. ASCE 6th Congress on Forensic Engineering, October 31 - November 3, 2012. San Francisco.

Parfitt, M. Kevin, Holland, Robert J., and Solnosky, Ryan. Results of a Pilot Multidisciplinary BIM - Enhanced Integrated Project Delivery Capstone Engineering Design Course in Architectural Engineering at Penn State. 2013 Architectural Engineering Institute (AEI) National Conference - ASCE. University Park, PA. April 2013.

Parfitt, M. Kevin, Jones, Daniel J., and Garvin, R. Gary. "Structural, Construction and Procedural Failures Associated with Long-Term Pyritic Soil Expansion at a Private Elementary School in Pennsylvania". ASCE *Journal of Performance of Constructed Facilities*, Volume 25, No. 1, Jan / Feb 2011.

**Professional Memberships:**

American Society of Civil Engineers (ASCE)

ASCE Technical Council on Forensic Engineering:

- Education Committee
- Committee on Dissemination of Forensic Information

ASCE Architectural Engineering Institute: Fellow

American Institute of Steel Construction (AISC) Professional - Educator Member

Pennsylvania Concrete Masonry Association - Education Member

**Madis Pihlak**

**Courses Taught (Two academic years prior to current visit):**

|           |  |           |                            |
|-----------|--|-----------|----------------------------|
| ARCH 431  | Urban Design Studio                                | ARCH 497B | Digital Urban Design       |
| LARCH 414 | Depth Studio                                       | ARCH 596  | Emerging Digital Media     |
| ARCH 596  | Emerging Digital Media                             | LARCH 497 | Emerging Digital Media     |
| LARCH 596 | Digital Media                                      | LARCH 596 | Digital Media              |
| ART 297A  | IDS Studio (3weeks)                                | ART 297B  | IDS Studio (3weeks)        |
| ARCH 597  | Ind Study  | LARCH 520 | Graduate Studio            |
|           |  |           |                            |
| ART 210   | Realization Studio                                 | ARCH 432  | Urban Design Studio        |
| ARCH 497C | Building Info Model Studio                         | ART 210   | Realization Studio         |
| ARCH 481  | Emerging Digital Media                             | ARCH 497A | Building Info Model Studio |
| ARCH 543  | Digital Media                                      | ARCH 497B | Digital Urban Design       |
| ART 297A  | Interdisciplinary Digital Studio<br>(IDS) (3weeks) | ARCH 596  | Emerging Digital Media     |
| ARCH 431  | Urban Design Studio                                | LARCH 496 | Emerging Digital Media     |
| LARCH 414 | Depth Studio                                       | LARCH 497 | Emerging Digital Media     |
| LARCH 450 | Emerging Digital Media                             | LARCH 597 | Digital Media              |
|           |  | ART 297B  | IDS Studio (3weeks)        |

**Educational Credentials:**

BES, Honours Urban and Regional Planning, University of Waterloo 1976  
MCP, MLA University of California, Berkeley, 1980, 1983

**Teaching Experience:**

Assistant Professor, University of Toronto, 1980-1985  
Assistant Professor, Arizona State University, 1987-1990  
Associate Professor, University of Maryland, 1990-1998  
Associate Professor, Penn State, 1998-present

**Professional Experience:**

Intern, Smith, Howard, and Johnson, Phoenix, AZ 1988-1991  
Project Architect, Gensler Chicago 1992-present

**Selected Publications and Recent Research:**

M Pihlak, P Deamer, R Holland, U Poerschke, J Messner, K Parfitt, Building Information Modeling (BIM) and the Impact on Design Quality. Journal of Architectural Engineering Technology, Vol 1, Issue 1 Dec 20, 2011

M Pihlak A Better CAD Solution, LASN Technology, p 1-5 June 2011

M Pihlak, Toronto Ecological Urbanism: Sustainable City of the Future, CELA, ISOMUL May 2010  
Maastricht, the Netherlands

Robert Holland, John Messner, Kevin Parfitt, Ute Poerschke, Madis Pihlak, Ryan Solnosky, Integrated Design Courses using BIM as the Technology Platform, ECO Build 2010

U Poerschke, R Holland, J Messner, M Pihlak. BIM collaboration across six disciplines, Proceedings of the International Conference on Computing in Civil and Building Engineering, W Tizani, (ed) Nottingham University Press May 2009

**Ute Poerschke, PhD**

**Courses Taught (Two academic years prior to current visit):**

ARCH 331 Studio (coordinator)  
ARCH 332 Studio (coordinator)  
ARCH 480 Technical Systems Integration

**Educational Credentials:**

Dipl. Ing. (professional degree in Architecture), Technical University of Munich, Germany, 1993  
Ph.D., Brandenburg Technical University Cottbus, Germany, 2005

**Teaching Experience:**

Junior Faculty, Technical University of Berlin, 1999-2004; Technical University of Munich, 2004-2005  
Associate Professor, The Pennsylvania State University, 2006-present

**Professional Experience:**

Architect, Prof. Ackermann & Partner, Munich, Germany, 1994  
Architect, Klein, Sanger, Scheer Architekten, Munich, Germany, 1995-1999  
Principal, Friedrich Poerschke Zwink Architekten, Munich, Germany, 2004-present

**Licenses/Registration:**

Registered Architect, Bavarian Chamber of Architects, #174688, 1996-present  
Registered Urban Planner, Bavarian Chamber of Architects, #41064, 2008-present  
LEED Accredited Professional, US Green Building Council, 2009-present

**Selected Publications and Recent Research:**

Poerschke, U., *Funktionen und Formen. Zur Architekturtheorie der Moderne (Functions and Forms. On Architectural Theory of Modernism)*. Working title, to be published: Bielefeld: Transcript, 2014 (German), 360 pages. ISBN 978-3-8376-2315-4.

Poerschke, U., "On the Concrete Materiality in Architecture." In: *Architectural Research Quarterly ARQ*, vol.16 (2012), iss.4 (24 pages). ISSN: 1359-1355, EISSN: 1474-0516.

Poerschke, U., "Architecture as a Mathematical Function. Reflections on Gottfried Semper." In: *Nexus Network Journal* (Kim Williams Books/Birkhäuser), vol.14 (2012), iss.1, pp.119-234.

Poerschke, U., "Francesco Milizia e l'idea di funzione e rappresentazione." In: *Francesco Milizia e il teatro del suo tempo: Architettura, Musica, Scena, Acustica*, edited by M. Russo, Trento: Editrice Università di Trento, 2011 (Italian), pp.89-102. ISBN 978-88-8443-396-1.

Poerschke, U., Woollen, M., Stewart, S., Srebric, J., Murtha, T., "Design Investigations on Building-Integrated Wind Energy: Observations from an Architecture Studio." In: *Proceedings of 2011 ASES Conference*, American Solar Energy Society, pp. 955-962.

Poerschke, U., Kalisperis, L., Santamouris, M., Spanou, A., "Design Approaches for Upgrading Historically Significant Architecture Toward Zero-Energy: The Republic of Cyprus Presidential Palace." In: *The Proceedings of the 27<sup>th</sup> International PLEA Conference*, edited by M. Bodart and A. Evrard, Presses Universitaires de Louvain, Belgium, 2011, vol.2, pp.527-532.

Guest Editor:  
Poerschke, U., Gampfer, S. (ed.), *Environmentally Conscious Architecture*, special issue of *Buildings*, Basel, CH: MDPI, open access journal: (Fall 2013). ISSN 2075-5309.

Poerschke, U., Führ, E. (ed.), *Purpose, Function, Use in Architecture and Urbanism*, theme issue of *Wolkenkuckucksheim – Cloud-Cuckoo-Land. International Journal of Architectural Theory*, vol.17, iss.1, 267 pages (Spring 2012). ISSN 1430-8363 (German), ISSN 1434-0984 (English).

**Professional Memberships:**

American Solar Energy Society ASES, 2011-present  
Society of Building Science Educators SBSE, 2008-present  
The American Institute of Architects, associate architect, #30482308, 2007-present

**Nida Rehman**

**Courses Taught (Two academic years prior to current visit):**

ARCH 131s Basic Design Studio I  
ARCH 132 Basic Design Studio II  
ARCH 316 Analysis of Human Settlements: Cities  
ARCH 312 Critical Postcolonial and Contemporary Perspectives in South Asian Architecture  
ARCH 536 Design-Inquiry

**Educational Credentials:**

B.Arch., Cornell University, 2002  
SMArchS., Massachusetts Institute of Technology, 2009

**Teaching Experience:**

Assistant Professor, Beaconhouse National University, Lahore, 2006-2007  
Teaching Assistant, MIT, 2007-2008  
Adjunct Professor, American University of Sharjah, Sharjah UAE, 2011  
Visiting Assistant Professor, Pennsylvania State University, 2012-present

**Professional Experience:**

Architect, Rafael Viñoly Architects, PC. New York, 2002-2005  
Project Architect, SR Designworks, Lahore, 2006-2007  
Assistant Design Director / Research Assistant, MIT Department of Architecture, 2008  
Architect / Project Manager, ORG, Somerville MA, 2009-2010

**Licenses/Registration:**

None

**Selected Publications and Recent Research:**

"Lahore's Two Rivers: Stories of Decay and Reform" (THAAP Publications, 2012)

"The Ghosts of Next Urbanism" (MONU, 2012)

"The Lahore Canal: Artifact and Site" (The London School of Economics and Political Science, 2009)

**Professional Memberships:**

None



**Marcus Shaffer**

**Courses Taught (Two academic years prior to current visit):**

ARCH 492 Architectural Design VIII - Thesis  
ARCH 491 Architectural Design VI - Thesis  
ARCH 432 Architectural Design VI / SLoPS  
ARCH 431 Architectural Design V / SLoPS  
A&A 491 IdeaLab  
ARCH 204 Materials and Building Construction II  
ARCH 203 Materials and Building Construction I

**Educational Credentials:**

BFA/Industrial Design, Rhode Island School of Design, 1992  
M. Arch, Virginia Polytechnic Institute and State University, 2008

**Teaching Experience:**

Assistant Professor, Penn State, 2008 - present

**Professional Experience:**

Benetton/Colors Magazine, Rome, 1994 - 1995  
Cranbrook Architecture Office, 1996 – 1999  
Chermayeff & Geismar Studio, NYC, 1999 - 2005

**Licenses/Registration:**

None

**Selected Publications and Recent Research:**

Shaffer, Marcus. *Rise Tectonic Machines! Construct the Exigent City!* Providence: RISD Architecture, 2013.

Shaffer, Marcus and Jonathan King. *Machine Book Vol. 1: Mechanical Extension, Exploration and Empowerment in the Architectural Frontier*. Barcelona: Actar, forthcoming.

Shaffer, Marcus and Timothy Simpson, Elisha Halpin, Amy Vashaw, Dorothy Evanson, "Integrating Engineering and Arts Through Capstone Design: Creative Campus Meets the Learning Factory." In *Proceedings of the 120th ASEE Annual Conference & Exposition*, Atlanta, GA: ASEE, 2013.

Shaffer, Marcus. "Developing Digi-mechanical Formwork for Construction in Environments of Displacement." *Advanced Materials Research Journal* (2013).

Shaffer, Marcus. "Something from Nothing: Extreme Re-purposing and Material/Construction Processes in First Year Studio." *New Constellations/New Ecologies*, ed. Ila Berman and Edward Mitchell, San Francisco, CA: ACSA, 2013.

Shaffer, Marcus. "Flexible Formwork and the Displacement City: A Technology of Extreme Accommodation." In *Proceedings of the 2nd International Conference on Flexible Formwork*, ed. John Orr, 314 - 322. Bath, England: ISFF, 2012.

Shaffer, Marcus. "High Tech / Low Tech: Tectonic Machines, Earth-built Traditions, and Constructing the Exigent City." In *Proceedings of the 28th Annual International Symposium on Automation and Robotics in Construction*. Seoul, IAARC, 2011.

Shaffer, Marcus. "New Machine Vernacular: Remote Building Devices, Digital/Cultural Accommodation and Technologies' Renewed Humanitarian Agenda." *FARU Journal 2010, Vernacular Futures* (2010): 201 – 210.

**Professional Memberships:**

Member, International Society of Fabric Forming  
Member, Association for Robotics in Architecture

**Alexandra Staub, PhD**

**Courses Taught (Two academic years prior to current visit):**

ARCH 331 – Architectural Design III  
ARCH 332 – Architectural Design IV  
ARCH 520 – Methods of Inquiry in Architecture and Urban Design

**Educational Credentials:**

B.A. Columbia University, New York, 1983  
Dipl.-Ing.(Arch.) Berlin University of the Arts, Germany, 1991  
Ph.D. Brandenburg Technical University Cottbus, Germany, 2005

**Teaching Experience:**

Assistant Professor, Brandenburg Technical University Cottbus, Germany 1992-1999  
Associate Professor, Penn State University 2000-present

**Professional Experience:**

Project Architect, Hertling und Partner, Berlin 1991-1993  
Associated Architect, Hildebrand und Lay Architekten, Berlin 1992-1996

**Licenses/Registration:**

None

**Selected Publications and Recent Research:**

Staub, Alexandra. "Germany – Researching Sustainability." In Hampson, Keith, Judy Kraatz (eds.), *R&D Investment and Impact in the Built Environment*, (to be published by Routledge in 2014).

Staub, Alexandra. "The Road to Upward Mobility: Urbanity and the creation of a new middle class in Postwar West Germany" (to be published in the *Journal of Urban History* in 2013).

Staub, Alexandra and Lisa lulo. "User-Participation and the Design Charrette: A Systematic Approach to Furthering the Design Process." In Plowright, Philip and Bryce Gamper, eds. *Proceedings of the Architectural Research Centers Consortium / European Association for Architectural Education*, Detroit, Michigan: Lawrence Technological University 2011, 305-314.

Alexandra Staub. "Einmal im Leben: Rooting the "Little Man" to Conservative Values in Postwar West Germany." In *After Fascism: Society, Political Culture, and Democratization in Europe since 1945*, edited by Matthew Berg and Maria Mesner, 153-177. Münster / Berlin / Vienna / London / Zurich: LIT-Verlag, 2009.

Alexandra Staub. "Reaching out and reining in: Four proposals for planning community." In *Leadership in Architectural Research: Between Academia and the Profession*, edited by Hazem Rashed-Ali and Shelley Roff, 417-424. Architectural Research Centers Consortium / European Association for Architectural Education, 2009.

Alexandra Staub. "Transparency in Postwar West German Architecture: A Symbol of Democracy or of Continuing Class Tensions?" In *Emerging Research and Design*, edited by Kate Wingert-Playdon and Herman Neuckermans, 184-195. Architectural Research Centers Consortium, 2007.

Alexandra Staub. "St. Petersburg's Double Life: The Planners' versus the People's City." *Journal of Urban History* 31, no. 3 (March 2005): 334-354.

**Professional Memberships:**

AARC (Architectural Research Centers Consortium)  
CIB (International Council for Research and Innovation in Building and Construction)

**Dan Willis, RA**

**Courses Taught (Two academic years prior to current visit):**

ARCH 204 Building Materials and Construction II  
ARCH 451 Professional Practice  
ARCH 596 Graduate Level Independent Study

**Educational Credentials:**

B.Arch., Carnegie Mellon University, 1979  
Graduate studies in engineering (construction management) University of Pittsburgh, 1985  
M.S. Arch, Penn State, 1989

**Teaching Experience:**

Instructor of Architecture, Penn State, 1987-1989  
Assistant Professor of Architecture, Penn State, 1989-1995  
Associate Professor of Architecture, Penn State, 1995-2003  
Professor of Architecture, 2003-present

**Professional Experience:**

Gordon Ketterer Associates, Pittsburgh, Intern Architect, 1980-1981  
DRS Associates, Pittsburgh, Intern Architect, 1981  
City of Pittsburgh, Bureau of Engineering and Construction, Project Manager, 1982-1985  
Astorino, Pittsburgh, PA, Project Architect/Project Manager, 1985-1987  
James Kruhly & Associates, Philadelphia, consulting architect, 1996  
Astorino, Pittsburgh, PA, Vice President in charge of State College office, 1997-2001  
Dan Willis, Architect, principal, 1987-1997; 2001 to present

**Licenses/Registration:**

Pennsylvania

**Selected Publications and Recent Research:**

"On the Dissolution of the Modular Imagination," essay in *The Material Imagination: Reveries on Architecture and Matter*, Matthew Mindrup, editor, (Surrey, UK: Ashgate): manuscript in progress  
*Architecture and Energy: Region and Climate*: manuscript in progress  
*Architecture and Energy: Performance and Style*, (Routledge, 2013)  
Research grant: Department of Energy EEB Hub grant, Philadelphia Navy Yard, (2010-2015)  
"When Engineering Design Meets Architecture." Research report to the National Science Foundation (2011)  
Research grant: National Science Foundation funding for workshop: "Collaborative Practice: When Engineering Design Meets Architecture" (2010)  
"Is the Charrette Old School?" (*Harvard Design Magazine*, 2010)  
"From Border Skirmishes to Strategic Alliances: Barriers to Design Innovation and Collaboration Between Architects and Engineers, and an Opportunity for Moving Beyond Them", The International Conference on Architecture, Engineering, and Construction (2009)  
"Mapping Design Domains, Bridging Design Cultures" *ASME Journal of Mechanical Design*, (August 2009)

**Professional Memberships:**

The International Code Council

**Scott Wing, AIA**

**Courses Taught (two academic years prior to current visit):**

ARCH 492: Architecture Design VII – Thesis (BIM/IPD option)  
ARCH 131s: Basic Design Studio I  
ARCH 132: Basic Design Studio II

**Educational Credentials:**

Bachelor of Arts, Brown University, 1983 (magna cum laude)  
Institute of Architecture and Urban Studies, 1981-82  
Rhode Island School of Design, 1980-81  
Master of Architecture, Princeton University, 1988

**Teaching Experience:**

Visiting Instructor, Penn State, 1992  
Adjunct Professor, Temple University, 1992  
Adjunct Professor, Philadelphia University, 1994-1995  
Assistant Professor, University of Arkansas, 1995-2000  
Interim Department Head, Penn State, 2009-2011  
Associate Professor, Penn State, 2000-present

**Professional Experience:**

The Newport Collaborative, 1980-1983  
Deborah Berke Architect, 1981, 1985  
James O. Kruhly, Architect, 1986  
Mitchell-Giurgola Architects, 1985  
Kieran, Timberlake and Harris (KieranTimberlake), 1986-1995  
Scott Wing Architect, 1995-present

**Licenses/Registration:**

Pennsylvania RA012658X

**Selected Publications and Recent Research:**

Interdisciplinary Collaborative BIM/IPD:  
Funded coursework and research (Raymond A. Bowers Program for Excellence, Stuckeman Collaborative Design Research, Autodesk and others)

*Interdisciplinary Collaborative BIM Studio*, Holland, R., Wing, S., Goldberg, D., National Institute of Building Sciences 2013 Building Innovation Conference (buildingSMART Alliance), BIM Academic Education Symposium, Setting the Course for a BIM Educational Strategy, Publication in conference proceedings ([http://www.nibs.org/?page=conference\\_bim](http://www.nibs.org/?page=conference_bim))..

*GIS + BIM = Integrated project Delivery @ Penn State*, Goldberg, D., Holland, R., Wing, S., Digital Landscape Architecture 2012 Conference Proceedings, pp 524 – 530 (online at <http://www.kolleg.loel.hs-anhalt.de/landschaftsinformatik/485.html> ).

Design-Build Research and Creative Accomplishment:  
Funded research in energy-efficient building technologies (DOE-NREL, USDA, NSF)

Solar Decathlon, Lead Architecture Adviser/Researcher

American Indian Housing Initiative, Lead Architectural Designer

**Professional Memberships:**

The American Institute of Architects

**Part Four (IV): Section 3 - *Visiting Team Report (VTR)* from the Previous Visit**

The 2008 VTR is available at

[http://stuckeman.psu.edu/sites/stuckeman.psu.edu/files/penn\\_state\\_vtr\\_2008.pdf](http://stuckeman.psu.edu/sites/stuckeman.psu.edu/files/penn_state_vtr_2008.pdf)

**Part Four (IV): Section 4 - Catalog (URL)**

The "Architecture" section of the Penn State *University Bulletin: Undergraduate Degree Programs* may be found at <http://bulletins.psu.edu/undergrad/programs/baccalaureate/a/ARCH>

**Part Four (IV): Section 5 - Alumni and Student Survey**

This section comprises summaries of the results of the alumni and student surveys conducted prior to writing this APR and the respective questionnaires used for the two surveys.

## Alumni Survey Summary

The alumni survey invitation was sent to 173 graduates from 2008-2012 via email and postal mail. Thirty two (18%) alumni completed the survey. Of these respondents one (3%) is employed in an architectural firm and pursuing an advanced degree, three (9%) are pursuing an advanced degree, and 24 (75%) are working in an architectural firm. Four are licensed (12.5%) and 22 (69%) are actively working on an IDP, while 2 (6%) are not engaged in architectural practice or education. On a scale of 1-5, where 1 is poor and 5 is excellent, respondents were satisfied or very satisfied with career preparation (3.76), but a little less with the quality of advising (3.03). Open-ended comments are quoted below:

- Penn State is a good school. I enjoyed courses I completed for my second degree. When comparing that department to the architecture department, the architecture department gets a big F. There was sexism, power playing, favoritism, unprofessionalism, bullying, gossip, and more. This behavior seemed to be encouraged because "famous architects are like that." I was completely turned off by the program and have not pursued a career in an architecture firm for fear of putting myself in the same kind of toxic environment.
- I completed my IDP within three years. I took and passed all 7 exams within that time as well. My education at the Penn State Department of Architecture prepared me well for these exams. I have also found myself well equipped for the challenges that face me every day at work.
- I'm not sure I understand the IDP question. You participate in IDP BEFORE you get your license. I participated in IDP up until last year when I completed my exams. However, I am currently serving as a Mentor to a friend through the IDP program.
- On question 3 regarding advising I struggled with what to put. I received great informal career advice from many faculty and incredible academic advising from Bob Fedorchak before he was, I believe wrong-headedly, fired. I only overlapped a year with the new advisor but due to his student load the advising for architecture students has become unacceptable. So the old system is 5+, the faculty's advice is a 5, the new system (not necessarily the individual) is a 1.
- I feel more prepared for an architecture career than peers from other schools and programs.
- In depth studios such as solar decathlon should be more widespread/encouraged.
- It makes a huge difference if you have a great adviser and that you also personally take the time to meet with them. Many people who might say that they didn't get the level of guidance they wanted I am sure did not even ask. My PSU Architecture degree was recognizable to get jobs, when I graduated there just weren't any, no matter where you had a degree from. I feel qualified because of my degree but also personal proactive experience but I would credit Penn State for celebrating and encouraging people to make the most of their experience and that its not handed to you. I wish I had more construction and technical understanding.
- The lack of emphasis on professional practice at an early stage during the program should be focused on due to its importance to properly informing students about the actual practice of architecture once they enter the professional field.
- From experience, Bob Fedorchak was one of the best overall people I've met throughout my time at Penn State. While certain professors came off as not interested or informed on students they were assigned to advise, Bob always made a point to check on students after class hours asking not only about projects, but things outside of schooling. In my opinion, Bob was one of the most valuable assets to the department and made the counseling a "3" rather than a "1." Also, there are moments in the professional field where I feel I was not prepared coming out of school, however I have had coworkers who said Penn State has prepared students better than other accredited schools.
- Increase transparency in the administration. Improve the organization, structure, and culture of design courses. Improve student-teacher communications and expectations. Specifically, the process in which assignments, tasks and grades are delivered and explained.
- Did not continue a career in Architecture following B.Arch and M.Arch degrees.



**PENN STATE ALUMNI SURVEY**

**Introduction:** The Architecture department at Penn State is conducting a short survey for our upcoming accreditation review in 2014. Your responses will remain confidential and summarized in the Architecture Program Report (APR) to be submitted to the National Architecture Accrediting Board (NAAB).

**1. What degree did you receive from Penn State:**  
B.Arch, B.S., M.Arch. Deferred graduation/Integrated degree candidate

**Year of graduation:**

**2. On a scale of 1-5, rate the overall quality of Advising/Counseling you received at Penn State?**

|      |   |   |   |           |
|------|---|---|---|-----------|
| Poor | 2 | 3 | 4 | Excellent |
|------|---|---|---|-----------|

**3. On a scale of 1-5, how well did your Penn State degree prepare you for your professional career in Architecture?**

|          |   |   |   |           |
|----------|---|---|---|-----------|
| Not Well | 2 | 3 | 4 | Very Well |
|----------|---|---|---|-----------|

**4. Have you pursued or are you currently pursuing a higher degree?**  
Yes or No

**5. Are you currently employed in an architecture firm?**  
Yes or No

**6. Are you licensed to practice architecture?**  
Yes or No

**If yes, go to number 8**

**7. Are you participating in IDP?**  
Yes or No

**8. Do you have any final comments (optional)?**

Thank you for your time.

## Student Survey Comment Summary and Analysis

Out of 224 B.Arch students in the Architecture Department, 197 or 88% completed the survey. Survey results showed that most students felt that studio sequencing was effective in preparing them for subsequent studio and workloads. The most notable outlier of this trend was the second years who expressed concern about the large jump in difficulty, expectations, and type of design encountered in second year studios as compared to first year studios. Upper year students, however, expressed that as they went through the program, they began to understand the value of the atypical design projects in first year. On third year wrote, "In first and second year it was sometimes difficult to understand why we were doing certain projects in certain orders. Why was I building a machine in first year and suddenly expected to design a building in second year? Now that third year is ending it's all beginning to click."

In response to the question concerning variety of elective courses, most students agreed that the variety and subjects were adequate and interesting, but that the required architecture curriculum left little time for them to fully appreciate the material presented. Some students suggested that some of these courses be adapted to qualify for General Education credits, which would allow them to take the architectural electives in lieu of Gen. Eds. which may have little to do with their interests or intended career paths. Students also indicated that the timing of the advertising of these courses should be shifted to before course scheduling occurs for the next semester; often students' schedules are already full by the time they learn of the interesting electives available to them.

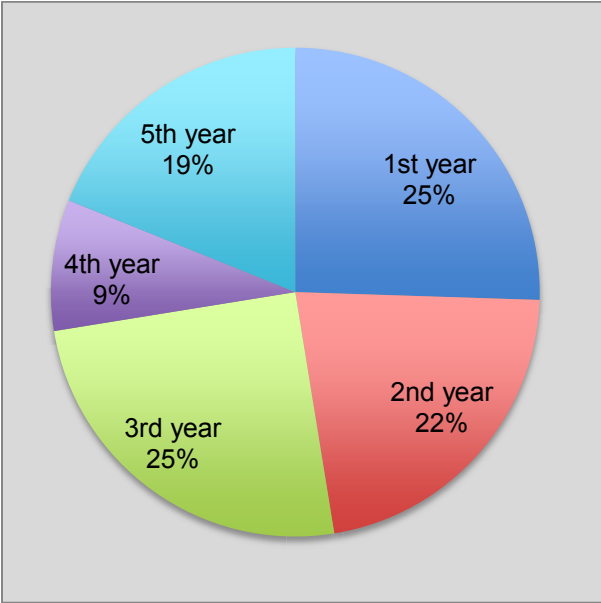
Survey results for academic and career advising show an interesting trend. In general, upper years were less satisfied in both areas than lower years. For academic advising, this can be explained by the change in advising staff that occurred in 2007. Upper level students preferred the advisor who helped them as first years and were dissatisfied with the new advisor. The younger students, however, indicated that the new advisor, Kirk Dimond, was extremely helpful in guiding them through the program's requirements. The results for career advising indicated that most first years had little or no reason to meet with the career advisor, and so had no reason to be dissatisfied. Upper years indicated that career advising had improved greatly over the past few years, but still needed vast improvement. The students found the Professional Practice course and its professor, Bob Holland, to be more helpful in job preparation than the career advisor. Most students, regardless of year level, said they would find the advisors more useful if there were occasional mandatory meetings or some sort of outreach from the advisors to the students.

Most students expressed great satisfaction in regard to the facilities at the Stuckeman Family Building. Some wrote that the facilities were one of the main reasons they chose Penn State. The most positive comments concerned the building's openness and conduciveness to collaboration between studios, as well as the presence of technology throughout the building. The two areas that received the most criticism were the lounge and lecture spaces. Most students feel that there is not enough lounge space or that one specific lounge space is not designated. Students said they would appreciate a café for quick breaks and social interactions between students and faculty. Lectures are usually given in the forums, which the students describe as "extremely uncomfortable" and "noisy." An intervention in these spaces that would improve comfort for long lectures and acoustics was the most common suggestion.

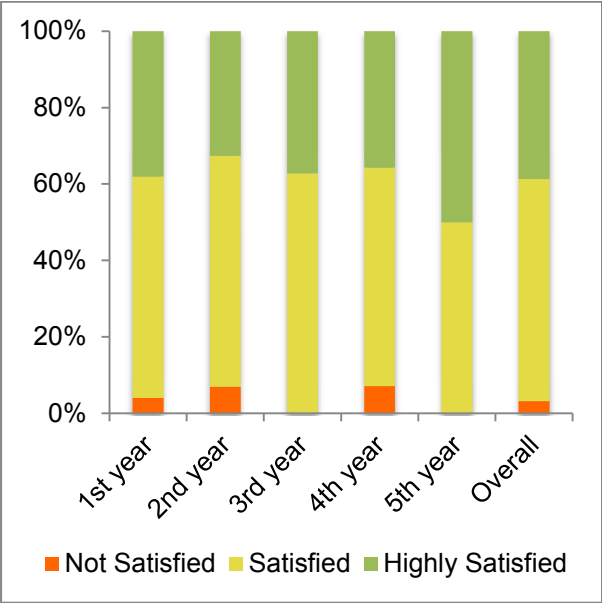
When asked about the communication between students and faculty, the most students believed that the system in place was a good start but needed improvement. For example, a lot of students wrote that their student representative was capable, approachable, and carried out their responsibilities, but did not relay information from meetings with the department head. They suggested that communication in general be more transparent. Students are interested in learning about the activities of the Department and how the Department intends to use monies available from the Stuckeman Endowment Fund.

As a whole, the survey indicated that most students are satisfied with studio sequencing, availability of electives, advising, facilities, and communication. The written comments, however, indicate areas which could be improved and provide valid suggestions for how to do so. This indicates that the students are dedicated to improving their educational environment for themselves and future students.

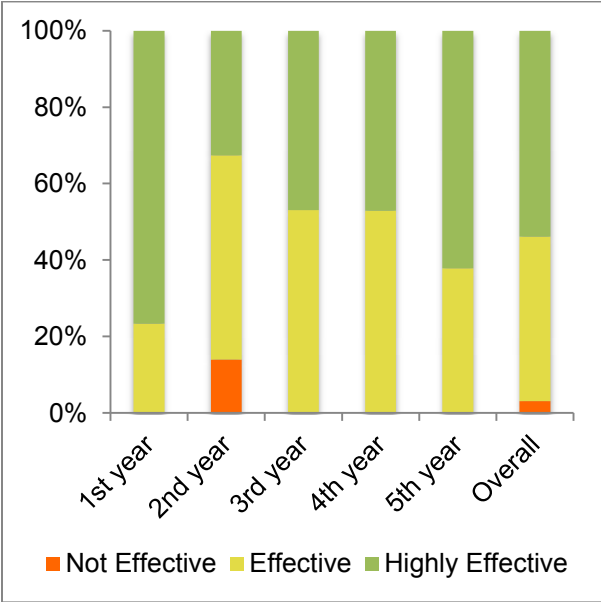
Architecture Undergraduate Student Survey Summary



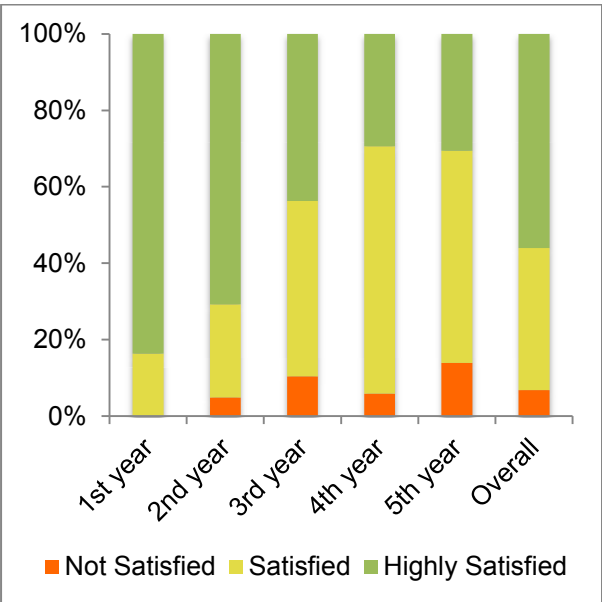
1. Percentage of Year-Level Respondents



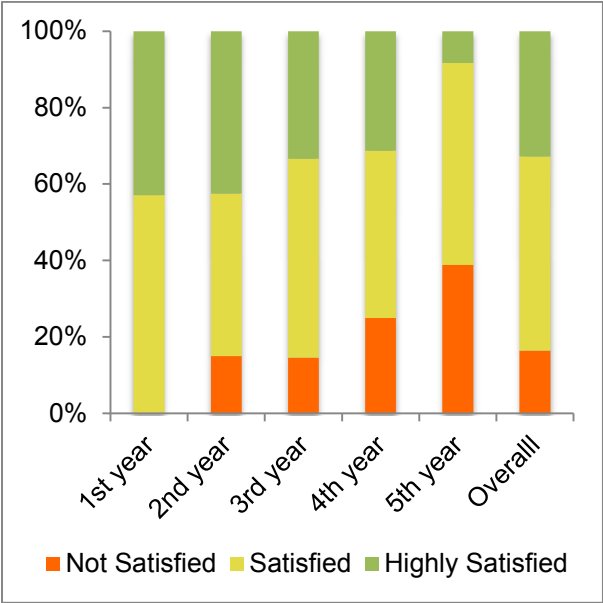
3. How satisfied are you with the variety of architecture elective courses?



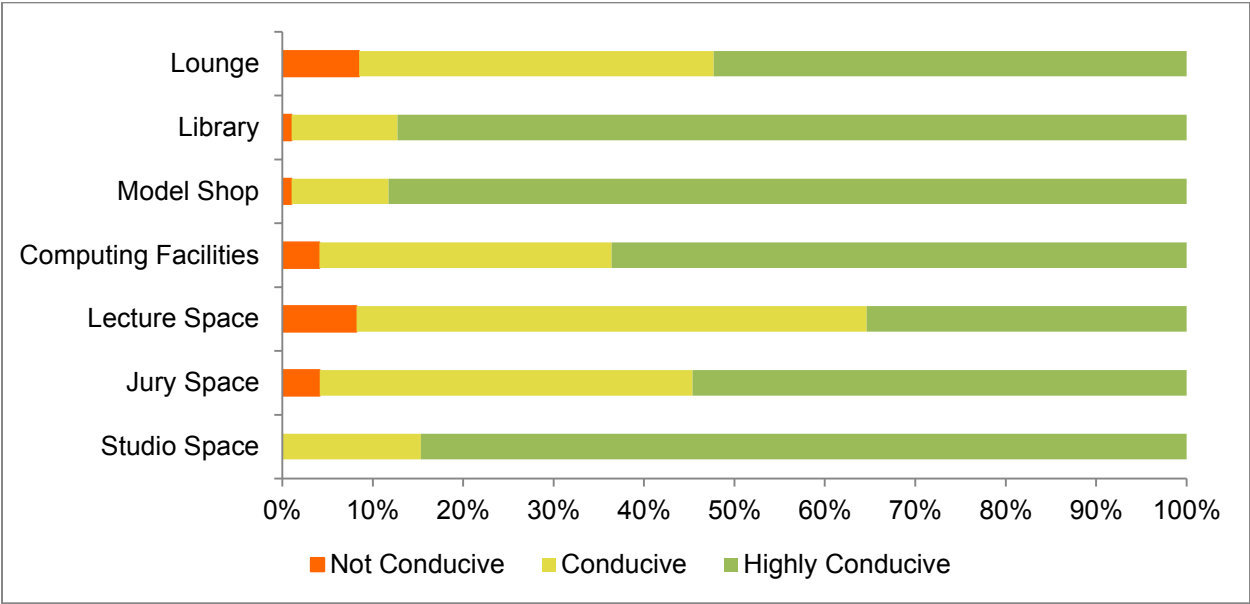
2. How effective was your previous studio in preparing you for the current level in the sequence?



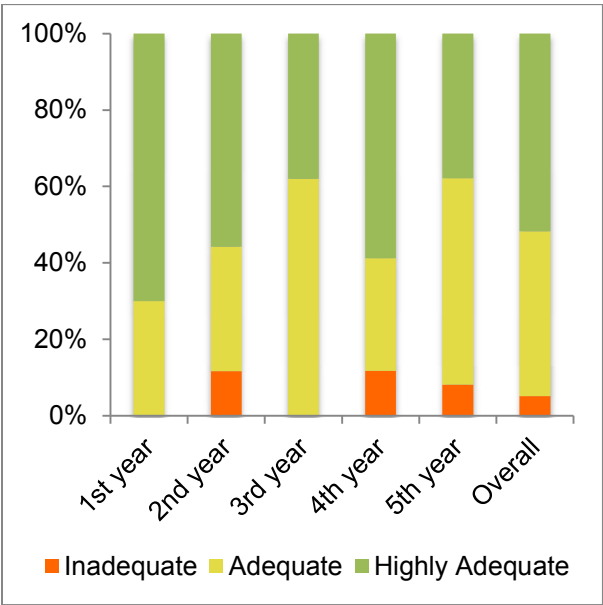
4. How satisfied are you with the current academic advising arrangement?



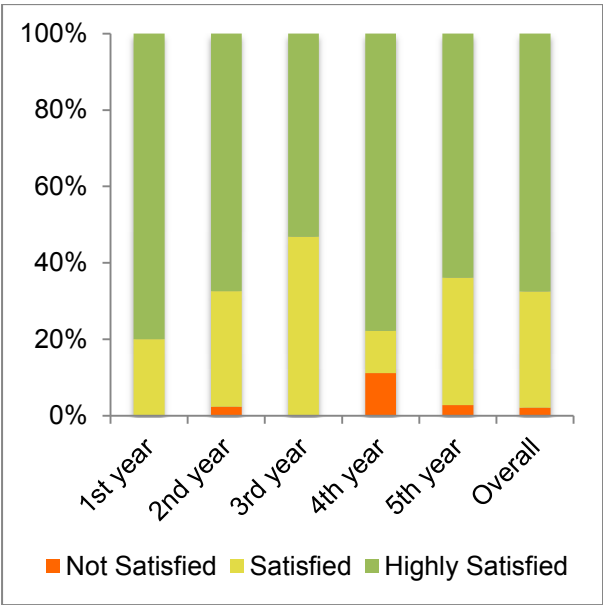
5. How satisfied are you with the current career advising arrangement?



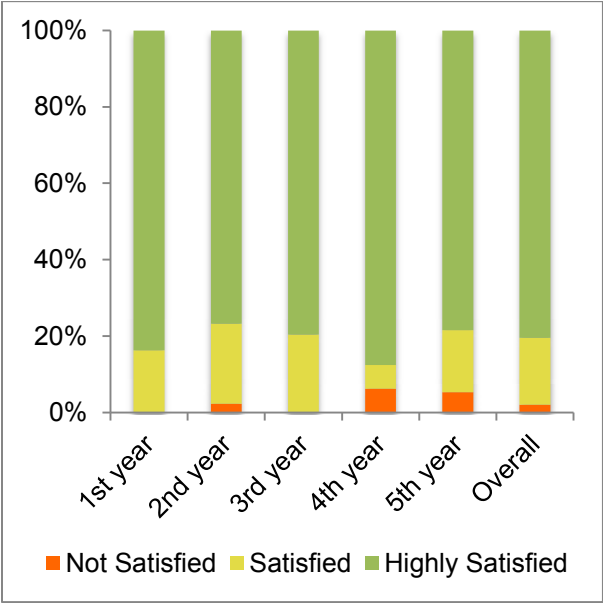
6. How conducive is the SALA building environment for architectural education?



7. Do you think current departmental efforts to encourage student representation adequately meet your needs to participate in the governance of the department?



9. How satisfied are you with the departmental efforts to insure that curricula in the College of Arts and Architecture provide all students with an understanding of and appreciation for the diverse social, cultural, and ethnic populations and their expressions?



8. How satisfied are you with the departmental efforts to promote and maintain a welcoming and inclusive climate for all persons?



Department of Architecture  
College of Arts & Architecture  
The Pennsylvania State University  
128 Stuckeman Family Building  
University Park, PA 16802

## Architecture Undergraduate Student Survey

The Department of Architecture is consistently making changes and adjustments to enhance the quality of the curriculum, the advising process, and the facilities. We would like you to participate in this process by evaluating the quality of the program. The results of this survey will be used in our 2013 APR (Architecture Program Report) for our upcoming accreditation review in 2014. Your responses will remain anonymous.

Please check your year of undergraduate studio:

|   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

### I. CURRICULUM

1. The architecture **studio sequence** can be briefly summarized as follows:

- 1st-year: introduction to design
- 2nd-year: building design in context
- 3rd-year: building systems in architectural design
- 4th-year: synthesis in building design/Rome: study abroad
- 5th-year: options/design thesis

How effective was your previous studio in preparing you for the current level in the sequence.

|               |   |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|---|------------------|
| Not Effective | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Effective |
|---------------|---|---|---|---|---|---|---|---|------------------|

Comments:

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2. How satisfied are you with the variety of architecture elective courses?

|               |   |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|---|------------------|
| Not Satisfied | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Satisfied |
|---------------|---|---|---|---|---|---|---|---|------------------|

Comments:

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## II. ADVISING

3. How satisfied are you with the current advising arrangement?

Academic:

|               |   |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|---|------------------|
| Not Satisfied | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Satisfied |
|---------------|---|---|---|---|---|---|---|---|------------------|

Career:

|               |   |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|---|------------------|
| Not Satisfied | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Satisfied |
|---------------|---|---|---|---|---|---|---|---|------------------|

Comments:

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## III. FACILITIES

4. How conducive is the SALA building environment for architectural education?

|  |               |   |   |   |   |   |   |   |   |                  |
|--|---------------|---|---|---|---|---|---|---|---|------------------|
|  | Not Conducive | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Conducive |
|--|---------------|---|---|---|---|---|---|---|---|------------------|

|                      |  |  |  |  |  |  |  |  |  |  |
|----------------------|--|--|--|--|--|--|--|--|--|--|
| Studio Space         |  |  |  |  |  |  |  |  |  |  |
| Jury Space           |  |  |  |  |  |  |  |  |  |  |
| Lecture Space        |  |  |  |  |  |  |  |  |  |  |
| Computing Facilities |  |  |  |  |  |  |  |  |  |  |
| Model Shop           |  |  |  |  |  |  |  |  |  |  |
| Library              |  |  |  |  |  |  |  |  |  |  |
| Lounge               |  |  |  |  |  |  |  |  |  |  |

5. What suggestions do you have to further enhance the quality of the facilities?

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**IV. STUDENT PARTICIPATION**

6. The Student Representatives, who consist of one student in each year level (elected by their classmates), as well as an additional student who is an officer in AIAS, meet regularly with the Department Head at least once a month. Policies, procedures, and curricular changes are discussed with this group prior to implementation. When appropriate, the student representatives participate in faculty meetings and many faculty committee meetings. Student responses and input are always sought for any faculty search.

Do you think that these efforts adequately meet the your needs to participate in the governance of the department?

|            |   |   |   |   |   |   |   |   |                 |
|------------|---|---|---|---|---|---|---|---|-----------------|
| Inadequate | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Adequate |
|------------|---|---|---|---|---|---|---|---|-----------------|

Comments:

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## V. HUMAN DIVERSITY

7. How satisfied are you with the departmental efforts to promote and maintain a welcoming and inclusive climate for all persons?

|               |   |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|---|------------------|
| Not Satisfied | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Satisfied |
|---------------|---|---|---|---|---|---|---|---|------------------|

8. How satisfied are you with the departmental efforts to insure that curricula in the College of Arts and Architecture provide all students with an understanding of and appreciation for the diverse social, cultural, and ethnic populations and their expressions.

|               |   |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|---|------------------|
| Not Satisfied | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Highly Satisfied |
|---------------|---|---|---|---|---|---|---|---|------------------|

*Thank you for participating!*  
*Please return the completed survey to the departmental office.*

**Part Four (IV): Section 6 - Department of Architecture Strategic Plan**

Department of Architecture  
 Strategic Plan 2009

**Leadership/Responsibility:**

Adv=Advising Coordinator; Alum=Alumni Liaison; Com=Communications Director; Coor=Coordinators Committee; Cur=Curriculum Committee; D=SALA Director; Digi=Digital Resources Committee; Fac=Interested Faculty; For=Foreign Studies Committee; Grad=Graduate Committee; H=Head; HC=Hamer Center; Pro=Professional Liaison

**Priority/Timeframe:**

1=immediate; 2=second phase; 3=third phase

**Resources:**

D=Departmental Funds; Ext=External; Stuck=Stuckeman Endowment

**Vision Statement:**

The Department of Architecture, as part of SALA (the School of Architecture and Landscape Architecture) and the College of Arts and Architecture at Penn State University sees as its mission the creation and continuance of a dynamic, rich environment that fosters excellence in research, teaching, learning, and collaboration in a climate that affirms cultural diversity, encourages internationalization, and positions the department as a leader in the field of architecture. As part of the newly restructured SALA, we see our role as creators and designers as key to the big-picture thinking required in today's world, where linkages of phenomena and issues at different scales determine insight and recognition on the road to finding solutions to the questions of tomorrow.

**The strategic approach to our vision is outlined in:**

**GOALS**

**Strategies**

| Action Steps | Leadership/<br>Responsibility | Priority /<br>Timeframe | Resources |
|--------------|-------------------------------|-------------------------|-----------|
|--------------|-------------------------------|-------------------------|-----------|

**GOAL 1: Shape the department to acknowledge the complexities of contemporary architecture, the University, and society.**

There are many national and global factors that impact the ability of the Penn State Architecture Department to excel in teaching, research/creative work, and service. Vital to the continued success of the department will be its ability to lead, and respond to, trends in architecture, construction, related design professions, and society. Chief among these trends is the growing emphasis on reducing the environmental impacts of building construction and operation, urban growth, and other forms of development. In a climate of static university resources, it will be important for the department to develop new revenue streams, to operate efficiently, and to form strategic alliances outside its boundaries. The department must maintain and enhance its traditional strengths in studio-based design education and preparation for professional practice, while strengthening research and graduate education, so that its graduates will succeed in a complex global environment.

**Strategy 1: Diversify the options for receiving an architectural education at Penn State.**

|   |        |     |  |
|---|--------|-----|--|
| Explore the feasibility and desirability of an accredited 5+ M.Arch program.              | Cur    | 2   |  |
| Explore the feasibility and desirability of a 4-year B.S. In Architecture                 | Cur    | 2   |  |
| Revise the architecture minor to simplify its administration.                             | Cur    | 1-2 |  |
| Revise the architecture minor to remove barriers for LArch students wishing to pursue it. | Cur    | 1   |  |
| Collaborate with LArch to develop a LArch minor for Arch students.                        | H, Cur | 1   |  |

**Strategy 2: Modify course delivery options to better fit diverse course content.**

|  |     |   |  |
|--|-----|---|--|
| Explore a modular course delivery model for courses outside the traditional 3 or 6-credit model, either during the year or the summer. | Cur | 1 |  |
| Explore possibilities for vertical studios.  | Cur | 1 |  |
| Explore possibilities for non-traditional summer courses, either for majors or non-majors.   | Cur | 2 |  |
| Develop options for providing comprehensive design studios   | Cur | 1 |  |

**Strategy 3: Increase the number of faculty exchanges, residencies, and visitations by professional and guest practitioners and theorists to bring new perspectives to our classrooms and workshops.**

*College\_Goal 2, Strategy 4: Increase the number of faculty exchanges, residencies, and visitations by professional and guest artists to bring new perspectives to our classrooms and workshops.*

|  |                   |     |          |
|--|-------------------|-----|----------|
| Develop a program to invite innovative designers to design reviews.  | SALA<br>Coor      | 1-2 | Stuck    |
| Implement the "short-burst workshop model" developed by the CC making use of practitioner-instructors (up-and-coming architects or accomplished, partner-level architects nearing retirement age). | H may<br>delegate | 1   | Stuck    |
| Implement use of practitioner-instructors to be in residence part time during a semester.  | SALA<br>H         | 1-2 | D, Stuck |
| Develop more design-build opportunities with faculty or practitioners during the summer sessions.  | H<br>F            | 2   |          |
| Develop summer undergraduate courses in conjunction with the PhD program.  | Cur<br>Grad       | 2   |          |

**Strategy 4: Provide our students with off-campus opportunities to experience architects and architecture emphasizing cutting-edge innovation in collaboration and design implementation.**

|  |                               |   |  |
|--|-------------------------------|---|--|
| Develop a proposal for a standing urban studio in a major urban center (possible sites: Pittsburgh or Philadelphia). As a starting point, this studio could use underused space in an existing architectural office. | SALA<br>HC                    | 2 |  |
| Explore the possibility of design coursework at locations other than UP (either through full courses or modules). This could also be a travel module.  | Cur, Coor                     | 2 |  |
| Expand the career fair and explore options for teaming up with LArch or AE.  | H plus<br>assigned<br>faculty | 2 |  |
| Revise internship-for-academic-credit course offerings.  | Cur                           | 1 |  |

**Strategy 5: Provide our students with an understanding of, and ability to use a broad range of architectural design tools.**

|   |   |   |  |
|---|---|---|--|
| Assess all digital and analog technologies within SALA: what they are, where they are (in the building and the curriculum), who is learning them, and who is teaching them.   | SALA Digi /<br>Digi                           | 1 |  |
| Determine the preferences of the faculty and students in an internal and external benchmarking exercise.  | SALA Digi /<br>Digi                           | 2 |  |
| Analyze space and staffing requirements for new technology facilities and make recommendations.   | SALA Digi /<br>Digi                           | 1 |  |
| Introduce basic, controlled training in skills/technologies early in the curriculum so that students can apply these tools and skills to more advanced or explorative study in the 4 <sup>th</sup> and 5 <sup>th</sup> years. | Digi  | 1 |  |
| Develop the former Corning Building into a Building Arts Laboratory.  | H, Corning<br>Advisory<br>Board, AE,<br>LArch | 2 |  |

**Strategy 6: Strengthen the collaboration between the SALA Centers and the Architecture and Landscape Architecture Departments.**

|  |                                    |     |  |
|--|------------------------------------|-----|--|
| Expand the significance of the Hamer Center by initiating connections between the HC, the Arch 4 <sup>th</sup> year studio curriculum, and LArch urban studios.        | SALA Cur/<br>Arch Cur<br>LArch Cur | 1-2 |  |
| Encourage a Hamer Center leadership structure that gives equal weight to Arch and LArch.   | SALA                               | 1   |  |
| Expand the significance of the Center for Watershed Stewardship by initiating connections between the CWS, Arch 4 <sup>th</sup> year studios, and LArch urban studios. | SALA Cur/<br>Arch Cur<br>LArch Cur | 3   |  |

|  |                       |   |  |
|--|-----------------------|---|--|
| Expand the significance of the Stuckeman Center for Design Computing by examining ways to tie the SCDC, and the IEL into the undergraduate and graduate studio curriculum. | SALA Cur/<br>Arch Cur | 2 |  |
|--|-----------------------|---|--|

**Strategy 7: Increase meaningful interaction with other departments (including Landscape Architecture) through various collaborations, including programmatic, classroom, research, and outreach activities.**

*College\_ What will we look like in 2010? We will increase meaningful interaction with units beyond the College through various collaborations, including programmatic, classroom, research, and outreach activities.*

|  |                   |     |  |
|--|-------------------|-----|--|
| Develop the BIM / integrated practice studio into a standing offering for Arch, LArch and AE students.   | Cur, Fac          | 2   |  |
| Identify possibilities of overlap in environmentally conscious architecture with LArch and AE and develop common course(s) and research areas. | Cur, CECA,<br>Fac | 2   |  |
| Increase cooperation with other departments in the area of environmentally conscious research and design.                                      | H, Fac            | 1-2 |  |
| Within SALA, develop a concept for using the Jones/Battaglia Research Studio.  | D, Heads          | 2   |  |

**GOAL 2: Strengthen the Department of Architecture through faculty pursuits in research and creative achievements.**

Research is a central focus of our university. In conforming to R-1 expectations at Penn State, research and creative activities will serve as our primary means for securing external funding, attracting more (and better) graduate students, adapting to contemporary ideas/methods in practice and education, reinvigorating the undergraduate curriculum, creating new relationships within SALA, and supporting the interests and expertise of faculty. Our greatest institutional challenge in approaching this objective lies in strengthening and supporting a research-oriented culture within the department, which has traditionally valued teaching over all other faculty pursuits. Strategies toward reprioritizing research and creative activity in the department, include: decreasing demands on faculty time for departmental service assignments, realigning teaching obligations in order to better accommodate faculty research interests in the studio and classroom, increasing support and incentives for faculty who seek external research funding, supporting and training faculty who want to pursue external funding, and creating new and supporting existing platforms for research and external funding.

Promotion and tenure policies at all levels increasingly place greater emphasis on research and creative activities, while an increased prominence and awareness of our department is closely linked to our publishing research, scholarship, and student/faculty work. We must appropriately prioritize and accommodate these activities, without compromising our traditional strengths in the studio and classroom.

**Strategy 1: Foster faculty development in research/creative achievement and teaching.**

|   |           |   |  |
|---|-----------|---|--|
| Develop clear course release policies to allow faculty to buy out of courses for purposes of research/creative achievement. | D, H, Fac | 1 |  |
|---|-----------|---|--|

|  |        |   |  |
|--|--------|---|--|
| Develop course content derived from faculty research areas.  | H, Fac | 1 |  |
| Recognize service to the community via service-learning and service-research (pro-bono research and consulting). |        | 2 |  |

**Strategy 2: Increase the efficiency and equity of faculty service.**

|  |                        |     |  |
|--|------------------------|-----|--|
| Establish a credit system for committee work to assure service load equity.  | H                      | 1   |  |
| Consolidate committees and service assignments where possible to reduce redundancies, including both SALA and departmental levels. | H, SALA advisory board | 1   |  |
| Realign faculty service based upon interest and enthusiasm for specific areas.   | H                      | 1-2 |  |
| Reduce the assigned service load to an average of 10 hours a week.   | H                      | 2   |  |
| Realign administrative staff assignments to provide more support to faculty teaching and service.                                  | H                      | 2   |  |

**Strategy 3: Using successful models from other colleges within the University, and other architecture or related programs, seek ways to increase research funding from external foundations and agencies.**

*College\_ How will we achieve our goals? Using successful models from other colleges within the University, we anticipate increased funding from external foundations and agencies.*

|  |        |     |  |
|--|--------|-----|--|
| Benchmark models used by other colleges and programs.  | Grad   | 2   |  |
| Develop an implementation plan for aggressively increasing research funding from external sources. | H      | 1-2 |  |
| Establish research-oriented partnerships with professionals and the building industry.             | H, Fac | 2   |  |

**Strategy 4: Build a stronger support and incentive program to encourage more faculty to seek research funding.**

*College\_ What will we look like in 2013? We will build a stronger support and incentive program to encourage more faculty to seek funding.*

|   |             |   |  |
|---|-------------|---|--|
| Work with the College to develop a strong support network for faculty seeking external funding, e.g. work with the Associate Dean for Research's office to allow online access to research databases. | Grad, Fac   | 1 |  |
| Plan symposia and workshops to allow faculty to collaborate on research ideas, share strategies, and facilitate mentorship of colleagues.   | H delegates | 3 |  |

|  |        |   |  |
|--|--------|---|--|
| Develop methods to assure teaching buy-outs if funds are available.                | H      | 1 |  |
| Develop flexible course-delivery formats so faculty can travel to pursue research. | H, Cur | 2 |  |

**GOAL 3: Expand resources for the Department of Architecture.**

Resources, even in good economic times, are often a challenge for the University, College and Department. This is particularly true in the difficult economic times we currently face. To achieve the vision of our strategic plan we will develop new programs and methods to increase funding and other resources for the Department of Architecture. This will insure that students receive the best possible education, alumni can continue their connection with the department by fostering today's students, and faculty work is sustained at a high level.

**Strategy 1: Improve our efforts to generate new revenues.**

|  |                       |   |  |
|--|-----------------------|---|--|
| Develop web-based general education courses.   | H, Fac                | 2 |  |
| Explore the feasibility of developing web-based continuing education courses, possibly with LArch or AE. | H delegates           | 2 |  |
| Raise money for need-based scholarships.   | H, Development Office | 1 |  |
| Host alumni events with a required donation to cover costs.  | Alum(s)               | 2 |  |

**GOAL 4: Increase the prominence of the department within the field of architectural education.**

The Department of Architecture provides leading education, research, and collaboration. The strategies below will improve continuance and communication of these achievements, insuring increased student success and strengthening ties to important stakeholders including alumni, employers, and professionals in allied fields.

**Strategy 1: Promote stronger relationships with alumni and the professions.**

|  |                    |     |                                 |
|--|--------------------|-----|---------------------------------|
| Establish a Communications Director  | H                  |     |                                 |
| Establish a design professionals advisory committee modeled on the College of Engineering IPCS.                            | H, Pro             | 1   | Stuck.                          |
| Work within SALA to more effectively market both Arch and LArch programs and events, through the internet and other means. | D                  | 1   | Shift of staff responsibilities |
| Develop new ways keep in touch with alumni (networking) including alumni-student events.                                   | Com. Alum. College | 2   |                                 |
| Develop a publication series or journal to showcase events and series in the department or in SALA.                        | Com                | 2-3 |                                 |

**Strategy 2: Continue to evolve an architectural educational environment that quickly identifies qualified students and provides the tools, support and opportunities necessary for these students to succeed in an academically rigorous professional curriculum.**

|  |                                     |   |  |
|--|-------------------------------------|---|--|
| Review, update and implement a revised studio culture policy taking into consideration the findings in "Toward an Evolution of a Studio Culture." Establish clear expectations for student performance and instructor communications and evaluations.                                  | H, Coor,<br>Cur,<br>Student<br>Reps | 2 |  |
| Increase opportunities for and effectiveness of mentoring (peer and professor).  | Adv. Fac.                           | 2 |  |
| Provide guidance that would, within the framework of a demanding professional curriculum, help a motivated and qualified student to take full advantage of the educational opportunities of Penn State (including concurrent majors, minors, concentrations, electives, and research). | Adv                                 | 3 |  |

**Strategy 3: Establish an environment within the Architecture Department which encourages student / professor interaction not only in the classroom but also in less formal situations.**

|  |   |   |                     |
|--|---|---|---------------------|
| Create a series of activities to facilitate the social interaction between students and the faculty. | H, Student<br>Reps AIAS,<br>APX,<br>NOMAS | 2 | Dept. Gift<br>Funds |
|--|---|---|---------------------|

**Strategy 4: Encourage and provide opportunities for students to more fully participate in providing input and appropriate decision making and governance within the Architecture Department.**

|   |   |   |  |
|---|---|---|--|
| Working in conjunction with the SALA Governance Plan, encourage and define the role of student participation in providing input to inform department decision-making. | D, H, in<br>consultation<br>with<br>committee<br>chairs | 2 |  |
|---|---|---|--|

**GOAL 5: Increase educational opportunities that expose students to diverse cultural conditions.**

The Department of Architecture at Penn State is committed to providing students with opportunities to study in a variety of diverse cultural and physical contexts, urban and rural, domestic and international. Diversity begins at home, and the department is committed to providing a study environment that reflects the diversity of American culture. Study abroad provides students the opportunity to learn about and respect, through direct experience and immersion, diverse cultures, and understand the fundamental truism that architecture is, and always has been a critical and inextricable component of society and culture. Study abroad confirms for students the validity of experiencing and understanding precedents and primary sources from historical as well as contemporary perspectives. However, study abroad locations should include not only places of historical significance, or where esteemed examples of contemporary design can be found, but also underdeveloped and developing regions of the globe.



**Strategy 1: Assure a diverse student body, faculty and staff.**

|   |   |   |  |
|---|---|---|--|
| Continue recruitment, yield enhancement, and fund-raising for need-based scholarships to maintain gains in the enrollment of under-represented groups (particularly African-American students) in the Architecture student body. <sup>3</sup> Develop target numbers based on specified criteria. | H, Adv, Student Groups, College Diversity | 1 |  |
| Recruit faculty and staff from underrepresented groups to better reflect the diversity of the student body.   | H, Fac, Staff                             | 1 |  |
| Use the summer camp for high-school students as a recruiting tool for underrepresented minorities; continue and increase need-based scholarships for the program.   | H, Fac                                    | 1 |  |
| Aggressively recruit underrepresented minority students through outreach.   | Adv, College Diversity                    | 1 |  |
| Analyze retention trends and graduation rates of underrepresented minority students in the program and develop a plan to increase retention/graduation if analysis shows this to be an area of concern.   | Adv                                       | 1 |  |
| Mirror the minority population percentages within the Commonwealth of PA.   | H, Adv                                    | 1 |  |
| Support students' NOMAS to create a welcoming environment and contribute to the retention of minority students by facilitating social interactions between students and faculty.  | H, Fac NOMAS                              | 1 |  |
| Support "Freedom by Design". Offer credits for participation to encourage more student involvement.   | Fac. Cur Coord, AIAS                      | 1 |  |

**Strategy 2: Pursue international partnerships for research and study abroad, student and faculty exchanges, and service-learning opportunities.**

*College\_ What will we look like in 2013? We will enhance our students' readiness to contribute to the global market-place of ideas and innovation in the arts through aggressive pursuit of international partnerships for study abroad, student and faculty exchanges, and service-learning opportunities—as well as collaborative research and scholarship with non-US institutions.*

|  |           |   |  |
|--|-----------|---|--|
| Develop summer programs to both European and non-European destinations to ensure that students have the opportunity for exposure to a variety of western and non-western, developed and underdeveloped cultures. | D, H, For | 2 |  |
| Expand Penn State Architecture's semester study  | D, H, For | 2 |  |

<sup>3</sup> Currently, African-American student numbers lag behind Hispanic-American and Asian-American students. In the ten year period from SP 01 to SP10 only 2 African-American students will have graduated out of nearly 400 total BARCH graduates.

|   |             |     |  |
|---|-------------|-----|--|
| abroad program to include a non-western destination in a developing urban environment (China, India, South Korea) as an alternative to Rome.  |             |     |  |
| Take advantage of faculty time and interests in conjunction with study abroad by offering additional study credits in the summer (prior to the beginning of a student's semester abroad). | H, For, Fac | 2   |  |
| Develop reciprocal exchange partnerships to host institutions for both students and faculty as another alternative to Rome (and Asia).  | H, For, Fac | 2   |  |
| Develop a summer program in Rome for Penn State architecture students.  | H, For, Fac | 2   |  |
| Develop spring break and / or winter break programs to sites outside of the University Park area.   | H, For, Fac | 2-3 |  |

**Strategy 3: Assure quality delivery of the Rome program.**

|   |             |   |  |
|---|-------------|---|--|
| Insure that the Pantheon Institute effectively meets the standards of SALA course and program requirements. | H, For, Cur | 1 |  |
| Expand optional courses for Rome program.   | H, For, Cur | 2 |  |

**GOAL 6: Educate our students to become environmentally conscious designers, architects and citizens.**

Penn State's University Strategic Plan recognizes the urgency of a sustainable agenda. In response to this and the new NAAB accreditation criteria for sustainability and carbon-neutral design, the department considers environmentally conscious design a major curricular priority. Students must develop an inclusive understanding of natural systems, ecological literacy, environmental responsibility, energy-efficient design, and manifold interpretations of sustainability. The architectural education will introduce relevant concepts and impart the understanding that problems of sustainability are complex, interrelated, multi-dimensional, multi-scale, and can only be solved through interdisciplinary knowledge from the natural sciences, humanities, social sciences, and the arts. Our strategic goal is to define required teaching contents concerning aesthetic, ethical and technical sustainability and develop appropriate courses, structures and mechanisms to ensure the implementation of this content.

**Strategy 1: Introduce concepts of sustainability throughout the curriculum.**

|  |           |     |  |
|--|-----------|-----|--|
| Evaluate the status of sustainability in the undergraduate and graduate curriculum.  | CECA, Cur | 1   |  |
| Determine how to enable students to develop a knowledge and design ability for interpretations and implications of sustainability. | CECA, Cur | 1   |  |
| Explore the possibility of a non-studio sustainability track that connects to a 4-year BED-degree                                  | CECA, Cur | 2   |  |
| Explore how environmentally conscious design can be emphasized in studios, seminars, and lecture courses.                          | CECA, Cur | 1-2 |  |

|   |                              |     |  |
|---|------------------------------|-----|--|
| Explore how studios and existing courses can be coordinated to better address environmentally conscious design.     | CECA, Cur, Cor               | 1-2 |  |
| Explore the possibility of collaborative studios to address the interdisciplinarity of sustainability.              | CECA, Cur, Cor               | 2   |  |
| Develop courses in energy conscious design (traditional and/or online).   | H, Fac                       | 2   |  |
| Explore the possibility of a minor in sustainable architecture.   | H, Fac                       | 2   |  |
| Explore the possibility of an e-learning certificate in sustainable architecture for students and/or professionals. | H, Fac, E-learning Institute | 2-3 |  |

**GOAL 7: Place a greater emphasis on graduate education.**

*College\_ What will we look like in 2013? We will place a greater emphasis on graduate education, including increased student quality and numbers in current programs, and establish select new graduate programs based on viability and available resources.*

Graduate education is an integral part of a research university. The College of Arts and Architecture has prominently written into its strategic plan the furthering of graduate education, especially within SALA. The Department of Architecture will work to further the quality of the graduate education we provide, allowing faculty to further their own research interests while providing an intensive educational experience for the next generation of researchers and scholars. A greater emphasis on graduate education will involve both actively recruiting outstanding students and seeking more research funding for faculty and student work. With the new Ph.D. program, the Department of Architecture will gain a further tie-in to one of the essential goals of the university, namely educating our students to become the leading thinkers and visionaries of tomorrow.

**Strategy 1: Improve the quality of the graduate applicant pool.**

|   |      |   |  |
|---|------|---|--|
| Benchmark ways used by other colleges within the University to recruit outstanding graduate applicants.               | Grad | 1 |  |
| Recruit domestic candidates for both the M.Arch and the PhD programs in order to provide a more diverse student body. | Grad | 2 |  |

**Strategy 2: Increase competitive graduate assistantships and fellowships offerings.**

*College\_Goal 1 Strategy 2b: b. Increase competitive graduate assistantships and fellowships through reallocation of existing resources, endowments and other means.*

|  |                  |   |  |
|--|------------------|---|--|
| Negotiate with the College for more assistantships for the growing Architecture graduate programs.     | H, Grad Officer  | 1 |  |
| Together with LArch, negotiate with the College for more assistantships for SALA projects and courses. | D, Grad Officers | 1 |  |

**Strategy 3: Build a stronger support and incentive program to encourage more faculty to seek research assistantship funding.**

*College\_Where will we be in 2013? We will build a stronger support and incentive program to encourage more faculty to seek [research] funding. We anticipate further growth in sponsored research, particularly in Architecture and Landscape Architecture.*

|  |   |   |  |
|--|---|---|--|
| Provide faculty with grant writing support.                      | H | 1 |  |
| Develop a strong reward system for faculty obtaining RA funding. | H | 1 |  |

**Strategy 4: Identify funding sources and seek increased funding from external foundations and agencies.**

*College\_How will we achieve our goals? Using successful models from other colleges within the University, we anticipate increased funding from external foundations and agencies.*

|  |                           |   |  |
|--|---------------------------|---|--|
| Identify possible areas of research concentration.   | H with Individual Faculty | 1 |  |
| Work with the Associate Dean for Research and Graduate Studies to identify and apply for external research grants. | Fac                       | 1 |  |
| Develop a database of external funding for students.   | Grad                      | 2 |  |

**Strategy 5: Strengthen the effectiveness of the graduate program by reducing redundancies and streamlining course offerings.**

|  |                      |   |  |
|--|----------------------|---|--|
| Examine possibility of joint foundation courses (e.g. LArch 501 / Arch 511, LArch 502 / Arch 520).   | Grad Arch + LArch    | 1 |  |
| Examine possibility for a joint colloquium course (LArch 510/Arch 590).  | Grad Arch + LArch    | 1 |  |
| Assuming retention of the M.Arch CUD curriculum, work with the Hamer Center to make better use of HC facilities and opportunities.                   | D, H, Grad, HC Board | 2 |  |
| Assuming retention of the M.Arch CUD option, examine overlap between the MLA and M.Arch CUD options and possibilities to cross-list or join courses. | Grad Arch + LArch    | 2 |  |

**Part Four (IV): Section 7 - Branch Campuses Questionnaire**

|   |                 |   |
|---|-----------------|---|
| Name of Institution:  |                 | Pantheon Institute, Rome Italy  |
| Title of Degree:  |                 | No degree granted   |
| Name of Program Administrator:  |                 | Romolo Martemucci, President, Academic Dean   |
| Name of Person Completing this Form:  |                 | Romolo Martemucci   |
| Location of Branch Campus, Additional Site, Teaching Site, Online learning, or Study Abroad Program:  |                 | Via del Pantheon 57<br>Rome Italy 00186   |
| Distance from Main/Flagship Campus:   |                 | About 4000 miles  |
| Number of Courses from Curriculum Leading to a NAAB-Accredited Degree Offered at this site  |                 | Three: Arch 431/32A Architectural Design Studio<br>Arch 499B Architectural Analysis<br>Arch 499C Imago Urbis: Roman Cartography |
| (List all courses: number, title, credits offered) [insert additional rows as necessary]  |                 |   |
| Course Number   | Credits offered | Course Title  |
| Arch 431/32A  | 6               | Architectural Design Studio (fourth year)   |
| Arch 499B   | 3               | Architectural Analysis  |
| Arch 499C   | 3               | Imago Urbis: Roman Cartography  |
|   |                 | Plus many other elective courses.   |
| Is attendance at the branch campus, additional site, teaching site, study abroad or online program required for completion of the NAAB-accredited degree program? |                 | Yes, for one semester of fourth year.   |
| Who has administrative responsibility for the program at the branch campus?   |                 | The Director, former Department of Architecture Professor (now retired from PSU) Romolo Martemucci                              |
| To whom does this individual report?  |                 | At Penn State, to the Arch Department Head  |
| Where are financial decisions made?   |                 | At The PSU Office of Global Programs  |
| Who has responsibility for hiring faculty?  |                 | Romolo Martemucci in collaborative discourse with the PSU Architecture Department Head  |
| Who has responsibility for rank, tenure, and promotion of faculty at the branch campus?   |                 | Romolo Martemucci, president, dean and director for the Pantheon Institute.   |
| Does the branch campus have its own curriculum committee?   |                 | Yes, the faculty constitute the committee.  |
| Does the branch campus have its own admissions committee?   |                 | No  |
| Does the branch campus have its own grievance committee?  |                 | Yes   |
| Does the branch campus have its own resources for faculty research and scholarship?   |                 | Yes, the program is partnered with the Accademia Adrianea graduate institute that grants a European Masters.                    |
| Does the branch campus have its own AIAS or NOMAS chapter?  |                 | No  |
| Does the branch campus maintain its own membership in ACSA?   |                 | No  |

**Additional Comments:**

The Pantheon Institute is the direct evolution of the Penn State Sede di Roma, which operated under the directorship of then PSU Professor of Architecture, Romolo Martemucci from 1988 to 2009.

In 2009, for administrative reasons facilitating the extension of the Rome Program, it was negotiated to allow Professor Martemucci to take an early retirement and continue teaching in and running the Sede as a newly formed Pantheon Institute. The Institute is now under contract to deliver course work and travel options to Penn State Architecture students on a year-round basis. The essential components of course material, course content and faculty have remained the same since the change over.

In addition, PSU students share some of the facilities at the Pantheon Institute with students from Tulane University, University of Massachusetts, and other university level professional architecture programs. The Pantheon Institute in Rome also offers a series of elective courses ranging from Digital Photography, to Art History, to Italian Language and Culture.