Cal Poly, San Luis Obispo
Architecture Department

Architecture Program Report for 2017 NAAB Visit for Continuing Accreditation

B. Arch. [225 quarter units]

Year of the Previous Visit: 2011
Current Term of Accreditation:

> "The professional architecture program **Bachelor of Architecture** was granted a six-year term of accreditation. The accreditation term is effective January 1, 2011. The program is scheduled for its next accreditation visit in 2017."

Submitted to: The National Architectural Accrediting Board
Date: 21 September 2016

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Section 1. Program Description

I.1.1 History and Mission

The BARCH program has its origins during WWII with the establishment of the Architectural Drafting Department in 1942. At the time, Cal Poly did not award any bachelor's degrees, and the goal of the department was to provide students with two- or three-year certificates. According to the 1941-42 *Bulletin* (the college catalog), it was expected that "graduates in these curricula will be employed by the planning mills, larger contracting firms, and building material organizations rather than architects. However, he [sic] will be qualified to enter an architect's office as a junior draftsman."[1] In the first few years, all of the courses were taught by a registered architect, Robert Younger, who had been a draftsman at the State Division of Architecture in Sacramento, California. After that, he became involved in various commercial, industrial, and residential projects in the Bay Area.[2]

It wasn't until 1947 that the Architectural Drafting Department became the Architectural Engineering Department. Initially, the only degree offered was the Bachelor of Science in Architectural Engineering (BSARCE). The 1947-48 *Bulletin* emphasized the character of the program by explaining its situation in "engineering rather than a division of the fine arts. Purely architectural courses are offered only to provide the student with a sympathetic understanding of the problems of architectural design." Nevertheless, the curriculum was considered appropriate "for students desiring an educational background for becoming licensed architects."[3] The 1948-49 *Bulletin* took a broader approach, offering the degree to "students desiring an educational background for entering the engineering fields of Architecture, Building, and Construction."[4] This formally blurred the disciplinary boundaries.

George Hasslein arrived in 1949 as a faculty member and was made the head of the department by 1952.[5] The environment was still "hostile to any teaching method that related to fine arts or professional education," as one source described it, so Hasslein began to introduce design education by a process of "creative deceit." For example, he was able "to assign his first design problem, the creation of a mobile, only after convincing the division dean that it was an exercise in the display of engineering materials."[6]

In 1952, Hasslein's second year as department head, the *Bulletin* noted that "the practice of architecture" was among the fields for which students would be prepared by the curriculum in architectural engineering. The *Bulletin* further noted that the California State Board of Architectural Examiners recognized the BSARCE curriculum as providing "three of the seven years experience required for eligibility to take the examination for an architect's license."[7]

At the time, only the University of California was permitted to offer professional degrees.[8] Those wanting to earn a professional degree in architecture at Cal Poly would have to wait until the 1960s, when the state college system was renamed the California State University to reflect a change of mission that included both liberal and professional education. Los Angeles architect Charles Luckman, then chairman of the new CSU Board of Trustees, was able to persuade Cal Poly President Julian McPhee to offer the B. Arch. beginning in 1964.[9]

In 1968, McPhee's successor, President Robert Kennedy, recognized the success of what had become the Department of Architecture and Architectural Engineering by raising it to the status of the School of Architecture and Environmental Design (SAED) under the leadership of Dean George Hasslein.[10] During its first year, the SAED only offered three degree programs: Architecture, Architectural Engineering, and City and Regional Planning. The school expanded to include programs in Construction Engineering in 1971 and Landscape Architecture in 1972.[11] The interdisciplinary origin of the new school was evident in its organization—not by departments but by degree programs under a single administration. The origin of the school was also evident in the lower-division curriculum, a foundation-level introduction to drawing and design shared by all the undergraduate programs.[12]

In 1972, the SAED began to offer the Master of Science in Architecture (MSARCH). This post-professional degree program lasted until 1977, when the BARCH and MSARCH were converted to the

BS in Architecture (BSARCH) and Master of Architecture (MARCH). This was in response to a suggestion of the National Architectural Accreditation Board (NAAB).

Due to the low number of students continuing into the graduate program, the BARCH was re-introduced in 1981. [13] The MARCH survived until 1988, when it was converted back to the MSARCH. That same year, under pressure from both the faculty and the accreditation agencies, President Kennedy directed Dean Hasslein to adopt a more traditional form of organization by departments.[14] This began a process of disciplinary separation evident in the administration and the curriculum, and it has proven difficult to overcome. In 1994, as part of a campus-wide reorganization, the school became the College of Architecture and Environmental Design (CAED).

The Program in Context. The entwined history of Architecture (ARCH) and Architectural Engineering (ARCE) is an artifact of Cal Poly's restricted mission until the 1960s. Only the University of California was allowed to offer professional degrees like the BARCH or MARCH, so offering architectural studies under the cover of an engineering degree was an institutional workaround.[15]

The impact of this history is apparent in the close relationship that continues to exist between ARCH and ARCE. The two undergraduate programs still share a first-year sequence in ARCH 131, 132, and 133. Conversely, after fulfilling calculus and physics prerequisites, the BARCH students take a rigorous, five-quarter sequence of ARCE courses that includes ARCE and Construction Management (CM) students at varying points. This sequence culminates with the focus on integrative design in ARCH 352 and 353 Architectural Design. The latter course especially focuses on the integration of the structural system with the support of the instructors in ARCE 316 Structural Integration in Architecture.

Department Mission and Goals. The mission of the Architecture Department is to provide diverse and comprehensive educational opportunities for persons preparing to serve society as responsible, ethical, and creative individuals involved in the design of the built environment and the profession of architecture. The department achieves its mission through excellence in teaching, scholarship, creative work, and service. There is a strong commitment to providing a learning environment that develops the ability to make design judgments which integrate and synthesize technical, contextual, and experiential issues in the creation of the built environment.

Based on this mission statement, the goals of the department are as follows:

- To create a teaching/learning environment that develops an ability and passion for the lifelong pursuit of knowledge and understanding in the design of the physical environment and the practice of architecture.
- To create teaching, learning and work environments that support physical and mental health and personal and professional growth.
- To provide educational opportunities to pursue design excellence, technical knowledge, and contextual understanding in the creation of the built environment.
- To provide educational opportunities to gain an understanding and appreciation for the interdisciplinary nature of design and the profession of architecture.
- To provide educational opportunities to gain an understanding and appreciation for the diversity manifest in the people, societies and cultures in relationship to the design and use of the built environment.

Institutional Context: Location. California Polytechnic State University (Cal Poly) is located in the city of San Luis Obispo, 10 miles from the Pacific Ocean, and about halfway between San Francisco and Los Angeles. With a total of 9,678 acres, Cal Poly is the second largest land-holding university in California and one of the largest in the nation. In addition to the main campus of 1,321 acres, the university owns the San Luis Creek Ranches (adjacent to the campus), Western Ranches (in the area, but not adjacent), Swanton Pacific Ranch and Valencia Property (both in Santa Cruz County). The university uses all of these holdings to provide students with opportunities for active learning.[16]

Mission. Cal Poly is a distinctive part of the 23-campus California State University (CSU) system. As such, it shares in the system's broad mission, while having a unique identity that is defined in state law. This specifically authorizes Cal Poly and its sister campus in Pomona "to emphasize the applied fields of agriculture, engineering, business, home economics, and other occupational and professional fields."[17] Architecture is also a field unique to the two polytechnic campuses. Cal Poly's own mission statement is as follows:

> Cal Poly fosters teaching, scholarship, and service in a Learn by Doing environment in which students, staff, and faculty are partners in discovery. As a polytechnic university, Cal Poly promotes the application of theory to practice. As a comprehensive institution, Cal Poly provides a balanced education in the arts, sciences, and technology, while encouraging cross-disciplinary and co-curricular experiences. As an academic community, Cal Poly values free inquiry, cultural and intellectual diversity, mutual respect, civic engagement, and social and environmental responsibility.

It is worth emphasizing here that Cal Poly's mission statement addresses the university's binary identity as an institution that is both polytechnic, i.e., professionally focused, and comprehensive, i.e., providing a breadth experience. This identity ensures that the BARCH program's course of study encourages the holistic development of young professionals through the integrated study of the liberal arts and the specific discipline of architecture. The university's vision statement is as follows:

> Cal Poly will be the nation's premier comprehensive polytechnic university, an innovative institution that develops and inspires whole-system thinkers to serve California and help solve global challenges.

History. Cal Poly was founded in 1901 as a co-educational vocational high school — the California Polytechnic School — and the first class of 15 women and men were enrolled in 1903. Legislation limiting enrollment to men was passed in 1929, and women students were not admitted again until 1956.

In 1940, the State Board of Education authorized the granting of Bachelor of Science degrees and changed Cal Poly from a school to a college; it officially became a university in 1972. The first bachelor degrees were granted to 24 men in June 1942. The senior project, a capstone requirement for all undergraduates, has been a distinctive component of a Cal Poly education since that time.[18]

Identity. The idea of Cal Poly as a comprehensive polytechnic is a relatively new one that reflects the language of the mission and accounts for the unique collection of majors that have developed in the College of Agriculture, Food, and Environmental Sciences, College of Architecture and Environmental Design (CAED), Orfalea College of Business, College of Engineering, College of Liberal Arts, and College of Science and Math. The programs offered by these six colleges include 64 bachelor and 34 master degrees.

Another important aspect of Cal Poly is its identity as a primarily undergraduate institution and a residential campus. In Fall 2015, the university enrolled **20,944** students, of which **20,049** (**95.7%**) were undergraduate students.[19] All first-time freshmen are required to live in university housing to ensure that everyone benefits from the supported on-campus experience. The university's goal is to be able to offer a similar experience to all sophomores.

Selectivity. Applications to Cal Poly continue to climb, with **56,546** total undergraduate applicants in Fall 2015 — an increase of **6.4%** from the previous year. First-time freshman (FTF) applications totaled **46,820** — an increase of **6.9%** from the previous year — of which **14,651** (**31.3%**) were offered admission and **4,943** (**33.3%**) were enrolled full-time.

As a result, FTF form a very select group, with record-high GPA, SAT, and ACT averages for the Fall 2015 cohort. The average high school GPA was **3.92**; the average SAT reading and math scores were **604** and **635**, respectively; and the average ACT composite score was **28.0**.[20]

Learn by Doing. The pedagogy of Learn by Doing, closely associated with philosopher, psychologist, and educational reformer John Dewey, has been the cornerstone of a Cal Poly education since the university's inception. The school's founders stressed the need to educate the hand as well as the head.

Over the past century, Cal Poly has evolved from a vocational school to a comprehensive polytechnic university, with degree-granting programs in a variety of technical and non-technical fields, but it has never lost its emphasis on hand's-on teaching and learning. Classes continue to be relatively small — there are few large lecture halls on campus — with an emphasis on active and project-based learning in laboratory and field settings.[21]

Surprisingly, until recently there was no campus-wide approved definition of Learn by Doing, nor was there any attempt to explain how the practice of Learn by Doing at Cal Poly might differ from its practice at comparable institutions.[22] In 2011, as part of the effort to re-affirm the university's accreditation, the Academic Senate approved the "Resolution on a Working Definition of Learn by Doing," which stated the following: "At Cal Poly, Learn by Doing is a deliberate process whereby students, from day one, acquire knowledge and skills through active engagement and self-reflection inside the classroom and beyond it."[23]

This definition was intended to be "both inclusive and meaningful" —broad enough to be applicable and specific enough to be useful across disciplines.[24] The individual words were carefully chosen:

- Learn by Doing is the result of a "deliberate" pedagogical intention.
- Learn by Doing is an educational "process," not a product.
- Learn by Doing is an experience in "active" learning.
- Learn by Doing is most effective when it is the product of "self-reflection."

The university's self-study posited a theory of distinctiveness for Learn by Doing at Cal Poly. The university has an especially robust co-curriculum, which makes Learn by Doing a phenomenon that can be observed both "inside the classroom and beyond." Furthermore, Cal Poly is unique in requiring students to declare a major upon matriculation, and they tend to associate Learn by Doing with their major studies. Because of these two conditions, Cal Poly students experience Learn by Doing "from day one," which is to say that it probably happens earlier and more often than at other institutions.[25]

The Program in Context. The self-study attempted to walk a fine line by arguing for the distinctiveness of Learn by Doing at Cal Poly without making a claim for its uniqueness. This was to acknowledge that there are other institutions, both land-grant and polytechnic, that espouse a similar pedagogy.

A similar argument can be made for the BARCH program at Cal Poly. All professional degree programs in architecture provide experiences in active, project-based learning, which makes them all exercises in Learn by Doing. But it's arguable that the pragmatic Cal Poly tradition of hand's-on learning has favored a form of student learning that focuses on real-world problems and/or that incorporate a buildable component. This can be seen in the furniture designs in the annual Vellum competition or the long-running Design Village Competition. This competition invites student teams from Cal Poly and other institutions to design, build, and occupy temporary shelters in the somewhat remote location of Poly Canyon during the university's Open House. Design Village shows how the size of the campus can be a benefit.

This kind of learning is relatively expensive and the BARCH program has benefitted from its situation within an institution that is characterized by a relatively large number of high-cost programs and laboratory-based curricula. Still, it must be admitted the BARCH is among the more expensive of these programs, and there has been some pressure to reduce its cost. This pressure has been relieved somewhat by the program's success in attracting out-of-state students. In Fall 2015, these students formed **38.5%** of undergraduate enrollment, as compared to the university's **14.4%.** The rankings add to the prestige of the institution and the attractiveness of the program adds to the institution's diversity. What follows is a sample of the types of activities and initiatives that demonstrate the BARCH program's benefit to the institution through teaching, scholarship, service, and engagement.

Teaching. Compared to other departments, such as those in the College of Liberal Arts and the College of Science and Math, Architecture does relatively little teaching in service to other programs. A six-year analysis of student credit units (SCUs) generated from 2009-10 to 2014-15 shows the percentage derived from teaching students in the department varying from **80.5%** to **87.0%**; in the CAED, from **87.8%** to **96.9%;** in other colleges, from **1.67%** to **10.68%**.

Nevertheless, the department does provide a foundation-level experience for ARCE students enrolled in ARCH 131, 132, and 133 Design and Visual Communication. The department also offers General Education courses that include ARCH 217, 218, and 219 History of World Architecture (typically offered in fall, winter, and spring quarters) as well as ARCH 320 Topics in Architectural History, and ARCH 326 Native American Architecture and Place (both offered occasionally). The college offers EDES 123, Principles of Environmental Design (offered in fall, winter, and spring), and a minor in Sustainable Environments. Both are sustained by ARCH faculty members with support from other departments.

Scholarship. Cal Poly is a teaching-intensive institution, and it has adopted Ernest Boyer's Teacher-Scholar Model, along with Boyer's understanding of scholarship taking four forms: discovery, application, integration, and teaching/learning. The university has done this with the understanding that the "continued intellectual and professional growth of faculty … is central to providing a vibrant learning environment for students."[26] Projects with a distinctive institutional impact include the following:

- **Campus as a Living Lab.** The CSU-sponsored program encourages faculty and facilities management to explore issues of sustainability. Five ARCH faculty members received two of the 12 awards to (1) explore building performance in the Warren J. Baker Center for Science and Mathematics, a new LEED-rated building, and (2) design, build, and test a radiant cooling system in the Media Lab of the Architecture Building.
- **Solar Decathlon.** In 2015, an interdisciplinary team of Cal Poly faculty and students took third place in the nationwide contest sponsored by the U.S. Department of Energy. The team, which included ARCH Professor Sandy Stannard, designed and built a 1000-square-foot, net-zero home.
- **Reflections.** Professor Clare Olsen used digital tools to design and fabricate a site-specific installation for the stairway of Cal Poly's Kennedy Library.

For other contributions, see **I.2.1 Human Resources & Human Resource Development** for faculty resumes and the list of faculty research, scholarship, and creative activities.

Service and Engagement.
ARCH faculty members are well represented in college, university, and Academic Senate committees, and in some cases exercise conspicuous leadership. Professor Don Choi, for example, has been the long-time chair of the senate's Distinguished Scholarship Awards Committee, and Professor Bruno Giberti was the Faculty Director of the university's self-study. In addition, ARCH Professors Kent Macdonald and Bryan Shields have taken leading roles in the Bank of America Merrill Lynch Low-Income Housing Challenge. Cal Poly's interdisciplinary teams of faculty and undergraduate students have a history of besting teams of graduate students. in 2016, Cal Poly's team, which included architecture, planning, and construction management students as well as students from the Orfalea College of Business, won first place.

I.1.2 Learning Culture

According to the NAAB's 2014 Conditions, the Architecture Department must demonstrate that it provides a positive and respectful learning environment that encourages optimism, respect, sharing, engagement, and innovation between and among the members of its faculty, student body, administration, and staff in all learning environments, both traditional and nontraditional. Specifically, the department must have a written studio culture policy and a plan for its implementation, including dissemination to all members of the learning community, regular evaluation, and continuous improvement or revision.

Since 2009, the Architecture Department has had a Studio Use Policy (see (http://www.architecture.calpoly.edu/current/studio-use), which was presented to NAAB as a studio culture policy during the 2011 review. At the beginning of each academic year, all the students in a studio must agree to the policy before they receive their studio keys. The process is not considered to be a particularly effective one, partly because of the length of the document and partly because students can agree to the policy without actually reviewing it.

The Studio Use Policy, which is a list of things that students should and should not do, no longer seems adequate to the task of voicing the aspirations of students, staff, and faculty for the studio as a locus of active architectural learning. In the course of preparing for the self-study, the department decided to develop an improved studio culture policy. To inform this policy, a faculty task force reviewed the three published reports on studio culture.[27] On this basis, the task force developed the Studio Culture Survey, which was administered online to all **631** students who were actively enrolled at the end of Spring 2016. **154** students (**24.4%**) responded, of which **109** (**70.8%**) completed the confidential survey. See Section 4.2 Studio Culture for a copy of the instrument, a descriptive report of the results, and a preliminary analysis**.**

The NAAB condition on learning culture, the preliminary results of the Studio Culture, the existing Studio Use Policy, and studio culture policies from other programs were all reviewed at the faculty retreat held on June 8, 2016. The retreat helped the task force develop a more concise Studio Use Policy and a more aspirational Studio Culture Policy that addresses the values of time management, general health and well-being, work-school-life balance, and professional conduct, as required by the conditions (http://www.architecture.calpoly.edu/current/studio-use). The policies will be presented to the ARCH faculty at the annual retreat on September 15, 2016. The intention is to seek faculty feedback on the draft policies and faculty approval of the revised versions before they are implemented in AY 2016-17. In addition, student feedback will be sought from focus groups with members of American Institute of Architecture Students.

Both policies will be published online and reviewed in every studio at the beginning of each academic year. In addition, the Studio Culture Policy will be included in a welcome letter that goes out to all ARCH and ARCE freshmen. The success of these policies will be reviewed after three years in 2019-20.

Learning Inside and Outside the Classroom. According to the *2014 Conditions*, the Architecture Department must also describe the ways in which students and faculty are encouraged to learn both inside and outside the classroom, through individual and collective learning opportunities that include, but are not limited to: field trips, participation in professional societies and organizations, honor societies, and other program-specific or campus-wide and community-wide activities.

Field Trips. Cal Poly's location, in a beautiful landscape that is nonetheless remote from the places where most architects work and most architecture is produced, makes studio- and club-related field trips an educational necessity of the BARCH program. For the obvious reason of proximity, Los Angeles and San Francisco are the most popular destinations. A four-hour drive makes them appropriate for shorter excursions of two to three days. A list of trips made over the review period included in Section 4.14 Teaching and Learning Activities also shows studios exploring more distant urban centers — Las Vegas, Minneapolis, New York City, Phoenix, Reno, Sacramento, and Seattle, among other locations. One fifth-year studio went to Japan for eight days, as the three-quarter schedule of the BARCH senior project makes longer trips possible.

Faculty travel for the purpose of scholarship and professional development will be discussed under **Section 3 – I.2.1 Human Resources**.

Participation in Professional and Honor Societies. At the department level, students in the BARCH program are involved with a number of organizations that support their academic development:

- Alpha Rho Chi is a national professional fraternity for students in architecture and the allied arts.

- The American Institute of Architecture Students is the student affiliate of the American Institute of Architects (AIA). The Cal Poly chapter received the 2015 Honor Award.
- The National Organization of Minority Architecture Students is the student affiliate of the National Organization of Minority Architects, which advocates for diversity within the profession.

For more information about these organizations, see http://architecture.calpoly.edu/current/student-clubs/

Students are also involved with college and university-level organizations. At the college-level, these include the following:

- The CAED Ambassadors Leadership Program assists with meetings, conferences and college tours.
- The Construction Specifications Institute Student Club is the student affiliate of the Construction Specifications Institute.
- The student chapter of the Design Build Institute of America is founded on the principles of integration and collaboration among the disciplines represented by the CAED departments.
- The Design Village Club is responsible for designing, planning, and hosting the annual Design Village Competition.
- Emerging Green Professionals (EGP) is an arm of the US Green Building Council that focuses on individuals who are new to the green building industry and the sustainability movement.
- Tau Sigma Delta is a national honor society for architecture and design majors.

At the university-level, these organizations include the following:

- Associated Students Inc. (ASI) is the official voice of Cal Poly students, with responsibility for student government as well as the Children's Center, Recreation Center, and University Union.
- Empower Poly Coalition fosters a sustainable campus environment.
- Future of Real Estate (FRE) provides a venue for students to learn from real estate professionals.

For more information about these organizations, see http://www.caed.calpoly.edu/content/current/student-clubs. For information about college support for faculty memberships in professional societies, see **Section I.2.1 Human Resources**. For information about student involvement in faculty research, see the discussion of scholarship under **Section I.1.1. History and Mission.**

I.1.3 Social Equity

According to the 2014 Conditions, the Architecture Department must have a policy on diversity and inclusion that is communicated to current and prospective faculty, students, and staff and that is reflected in the distribution of the program's human, physical, and financial resources. In addition, the 2014 Guide specifies that the architecture program report (APR) must include a description of institutional initiatives for diversity and inclusion and how the program is engaged in or benefits from these initiatives.

Diversity is a longstanding concern at Cal Poly as evidenced by a series of important university policies that the department accepts as its own:

- The Cal Poly Statement on Diversity, approved in 1998 and updated in 2015 as the Cal Poly Statement on Diversity and Inclusivity (see http://www.academicprograms.calpoly.edu/content/academicpolicies/diversity-statement)
- The Cal Poly Mission Statement, approved in 2006 and revised in 2010, which includes "cultural and intellectual diversity" as well as "mutual respect" among the institutional values (see http://www.catalog.calpoly.edu/universitylearningobjectives/)
- The Diversity Learning Objectives (DLOs), approved in 2008 as a statement of expectations for all Cal Poly graduates (see http://www.academicprograms.calpoly.edu/content/academicpolicies/diversity_lo)
- Making Excellence Inclusive, adopted in 2009, an initiative of the American Association of Colleges and Universities that is intended to help institutions of higher education integrate efforts

to improve diversity, equity, and educational quality (see https://www.aacu.org/making-excellence-inclusive).

Plan for Increasing Diversity. According to the 2014 *Conditions*, the department must also describe its plan for maintaining or increasing the diversity of its faculty, staff, and students during the next two accreditation cycles as compared with the existing diversity of the faculty, staff, and students of the institution. In addition, the *2014* Guide specifies that the APR must include a description of the process by which these plans are developed and the individuals involved in the process.

Cal Poly is in the midst of a strategic planning effort that focuses on both diversity and inclusion. This effort began in 2014 with the adoption of President Jeff Armstrong's Vision 2022 as a compass for institutional development (see http://president-stage.calpoly.edu/vision-2022-future-cal-poly). Vision 2022 includes the following aspirational statements:

- "We will have an enriching, inclusive environment where every student, faculty and staff member is valued."
- We will "create a rich culture of diversity and inclusivity that supports and celebrates the similarities and differences of every individual on campus."

At the same time, the university hired a professional consultant to develop and administer the Campus Climate Survey (see http://campusclimate.calpoly.edu). The results of the survey have informed the development of the Diversity Strategic Framework, a seven-year strategic plan for diversity and inclusion that aligns with Vision 2022 (see http://content-calpoly-edu.s3.amazonaws.com/diversity/1/images/DiversityStrategicFrameworkReport_web.pdf) The six colleges are in the process of developing their own strategic plans for diversity and inclusion in response to the framework and the departments will follow.

Diversity Initiatives. According to the 2014 *Conditions*, the department must document that institutional, college, or program-level policies are in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA), as well as any other diversity initiatives at the program, college, or institutional level.

Cal Poly's Office of Equal Opportunity (See Section 4.6 EEO AA Policies) is responsible for maintaining and implementing employment policies and procedures that comply with applicable state and federal non-discrimination and affirmative action obligations, laws, and regulations. (See http://www.equalopportunity.calpoly.edu/content/discrimination_harassment_retaliation_prevention_procedures) The office also oversees Cal Poly's compliance with federal legislation requiring gender equity under Title IX.

Through the participation of the Employment Equity Facilitator (EEF) in each recruitment search, the university ensures that equal employment opportunities exist for all applicants. (See http://www.equalopportunity.calpoly.edu/content/eef)

Self-Assessment and Long-Range Planning. Finally, the *2014* Guide specifies that the APR must include a description of whether and how all these initiatives are linked to the program's self-assessment or long-range planning.

Annually, the Office of Institutional Research produces statistical reports with six years of trend data relating to student profiles, degrees awarded, persistence and graduation rates, and the production of student credit units (SCUs). Parallel reports at the university, college, and department levels provide a context for understanding the data. Faculty and staff profiles are not included because of concerns for privacy at the unit level.

This data should be reviewed on an ongoing basis, with program/accreditation review providing an appropriate moment to take stock. A comparison of Fall 2010 and Fall 2015 data for the BARCH programs shows the following during the period under review:

- There was an increase in the percentage of women students from **44.9%** to **53%**.
- There was an increase in the percentage of under-represented minority (URM) students from **18.8%** to **20.6%**.
- There was a decrease in the percentage of Pell Grant recipients from **28.8%** to **20.6%** showing less economic diversity.

A comparison to Cal Poly data on the same points shows the department serving:

- A larger percentage of women students in Fall 2015
- A larger percentage of URM students in Fall 2010 and Fall 2015
- A smaller percentage of Pell Grant recipients in Fall 2010 and Fall 2015

The Architecture Department intends to use the action-planning process, which is the last step in program/accreditation review, to articulate specific goals related to diversity and inclusion in response to the framework. This process typically involves the staff and faculty, as well as the administration at all levels — department, college, and university.

There is already a strong awareness that new transfer students (NTS) represent a more diverse population than first-time freshmen (FTF). In Fall 2015, although men formed a higher percentage of NTS than FTF (**66.7%** vs. **44.4%**), URM and First Generation students formed a higher percentage (**26.7%** vs. **18.9%** and **33.3%** vs. **7.8%**, respectively; see below).

Figure A: Demographics of Enrolled Students Fall 2015

	First-Time Freshmen (N=180)	New Transfer Students (N=15)
Men	44.4%	66.7%
Women	55.6%	33.3%
URM*	18.9%	26.7%
Non URM	81.1%	73.3%
First Generation**	7.8%	33.3%
Non-First Generation	92.2%	66.7%
*URM: under-represented minorities		
**First Gen: highest parent education level is high school graduation.		

Unfortunately, the number of enrolled NTS has declined from 40 in Fall 2009 to 15 in Fall 2015. The department sees increasing the size of this cohort as a key part of its plan for increasing the diversity of students and is currently working on articulation agreements to achieve this goal.

I.1.4 Defining Perspectives

According to the 2014 *Conditions,* the Architecture Department must describe how it is responsive to the five Defining Perspectives or forces that affect the education and development of professional architects. The response to each perspective must further identify how these perspectives will continue to be addressed as part of the program's long-range planning activities.

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

This NAAB perspective is addressed by an alignment of the University Learning Objectives, BARCH Program Learning Objectives, and ARCH course learning outcomes:

- All Cal Poly graduates should be able to "work productively as individuals and in groups."
- All BARCH graduates should be able to "work productively with diverse groups including design professionals, clients, and users." This includes:
    - Understanding stakeholder relationships in the design process and the architect's role in reconciling stakeholder needs (based on the NAAB Student Performance Criteria, specifically D1 Stakeholder Roles in Architecture).
    - Ability to collaborate at every stage in the design and construction process and to exercise appropriate leadership.

In addition, the university's Diversity Learning Objectives state that all Cal Poly graduates should be able to "function as members of society and as professionals with people who have ideas, beliefs, attitudes, and behaviors that are different from their own."

The curriculum includes ample opportunities for students to achieve these expectations, beginning with the team-based projects that make up the first-year experience of EDES 123 and ARCH 131, 132, and 133. The later years also incorporate group work, usually in the early, pre-design stages of the project, but also continuing into design development during the two-quarter experience of ARCH 352 and 353. In fourth and fifth year, ARCH 443 has been revised from a large lecture to a workshop format relying on team-based projects. In the curriculum, but not strictly curricular, mentoring connections have been created between first- and third-year students and third- and fifth-year students.

The co-curriculum also includes opportunities for students to achieve these expectations through leadership experiences in clubs and student committees (see above under **Participation in Professional and Honor Societies**). Student assistants play important and necessary roles in the organization of large lecture classes, such as ARCH 101 Survey of Architectural Education and Practice, as well as ARCH 217, 218, and 219. They also play a role in the management of the Digital Fabrication Laboratory (d[Fab]), the print room of the Neel Resource Center, and the college computer lab.

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

At almost 800 active students, the BARCH program is the largest in the country.
In some respects, the program functions more effectively at the level of the curriculum area, where teams of instructors can focus on a single, related set of lessons.
Over time, these have cohered to give each year of design a specific character and focus:

- First year is a broad, foundation-level exposure to two- and three-dimensional design problems at the level of the building, the landscape, and the landscape-scaled building, as well as the skills necessary to communicate a response to these distinct situations.
- Second and third years are integrative experiences linking courses in architectural design, practice, and environmental systems. These years form the polytechnic core of the curriculum,

which encourage students to move from a more schematic understanding of the building problem to one more associated with design development.

- Fourth year is the locus for all of the off-campus programs, whether domestic or international. In contrast to the on-campus experience, these programs provide more exposure to the building problem in the urban and/or historic context, as well as to different models for architectural practice and production.
- Fifth year is thesis year, otherwise known at Cal Poly as the senior project. The nature of the project allows students to define and explore their own design problem, which is usually a building, but may also exist at a smaller or larger scale — an object or a landscape. The year is punctuated by large-group exhibitions. The fall Detail Shows and the winter Section Shows lead to the spring exhibition of completed projects in Chumash Auditorium.

The varying focus of each year ensures that students are exposed to a broad understanding of architecture while gradually assuming more responsibility for defining the design problem and process.

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

The Architecture faculty is clear about its purpose in preparing students to enter the profession. At the same time, there is a realistic awareness that, for some students, the path to licensure will lead through graduate school and for others, the path will lead away from architecture. This conforms to what we know about student intentions from the Studio Culture Survey. Although a large majority of respondents thought it "likely or most likely" that they would both "get a job in architecture" (**87%**) and "become a registered architect" (**80.6%**), a similarly large majority thought it likely that they might "get a job in a field related to architecture" (**81.4%**). A minority thought it likely that they would "go to graduate school in architecture" (**25.9%**).

The BARCH program addresses AXP and the path to licensure early on, beginning in ARCH 101. The message is reinforced annually, concluding with a more detailed presentation of the issues in ARCH 443 Issues in Contemporary Professional Practice.

One- to two-quarter internship opportunities are available in fourth-year through the Co-operative Education Program; the Professional Studios, which combine an internship and a design or research project assigned by the supervising firm; and the Los Angeles and San Francisco Metro Programs, which also combine internship and studio experiences. In fifth year, the Blind Dates program provides a short-term office exposure during spring break.

Professional societies provide students with an exposure to real-world issues and values, as do the professionals who participate as guest critics in individual studio reviews or the all-third-year Best of Show exhibit. Minor opportunities in the college and elsewhere on campus provide an introduction to alternate paths (see **Section 3 – II.2.2 Professional Degrees or Curriculum**).

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

At Cal Poly, there is a useful intersection of sustainability and building science that assures the integration of architectural design, practice, and environmental systems as curriculum areas. At the same, time, there is a long-standing disinclination to isolate issues of sustainability to a single "magic bullet" course, with the result that students are expected develop their competency in relationship to these issues over the long term.

Focused opportunities include the college's minor in Sustainable Environments, the two entries to the Solar Decathlon (including 2015), also sponsored by the college, and the department's participation in the

CSU Campus as Living Lab program. All three have had spillover effects that improve the overall student experience.

The university has defined learning expectations in this area of the curriculum through the Sustainability Learning Objectives (see http://ulo.calpoly.edu), which the ARCH faculty have adopted as course-level outcomes. The Academic Senate Sustainability Committee has developed an inventory of courses that address these objectives, which is now available online (http://suscat.calpoly.edu).

University Housing sponsors a number of Living/Learning Communities (see http://www.housing.calpoly.edu/content/res_life/llp), one of which is devoted to issues of sustainability. Another co-curricular opportunity is Empower Poly, which serves as a coalition of environmentally oriented clubs.

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

Issues of community and social responsibility have been hardwired into the design of EDES 123, a new course that serves as an introduction to the theory and practice of environmental design for both BARCH and GE students. Professional ethics, especially in their AIA formulation, is an important component ARCH 443, while the GE curriculum serves a critical role in teaching the broader lessons of citizenship to students in BARCH and other majors.

Less predictable in terms of their impact on BARCH students are the faculty members who make community and social responsibility an aspect of their studio instruction by assigning community design projects or housing for people with special needs. The nearly 100 students enrolled in the Sustainable Environments minor experience EDES 408 Implementing Sustainable Principles, which mingles themes of social responsibility and environmental stewardship.

In some respects, the students are in front of the program regarding this perspective. A conspicuous number arrange fourth-year internships with service organizations like Journeyman and Engineer's Ministries International or choose affordable and/or supportive housing as a fifth-year thesis topic. In a similar vein, a regular team of students and faculty members participates in the Bank of America Low Cost Housing Challenge.

I.1.5 Long Range Planning

At Cal Poly, the program-review process is understood to consist of three parts: the department and program self-study which is equivalent to the APR; the review itself conducted by a visiting team of members who are external to the department; and the action plan which should be the department's response to its own findings and those of the team. The climax of the process is not the visit so much as the action plan meeting, which is attended by the faculty, the leadership of the department and college, and the Senior Vice Provost for Academic Programs and Planning. The purpose of the meeting is to explore and ultimately to gain the dean's approval of the action plan.

The Office of Academic Programs and Planning argues that, with an effective self-study providing an environmental scan of the department and program, as well as a visiting team asking the right questions, a well-developed action plan should provide a sufficiently long-term projection of the department's strategy for addressing the challenges of the future.

The Role of the Five Perspectives. After the last NAAB accreditation review, the Architecture Department produced an action plan that focused tightly on issues that had been identified by the visiting team. The three student performance criteria related to accessibility, life safety, and comprehensive design that had been found "not met." The five causes of concern relative to budget cuts, the administration of the College-Based Fees, the perceived lack of fiscal planning, the moving of summer

courses and off-campus programs to continuing education, and student mistrust of the registration system. The department's success in addressing these issues is addressed in **Section 2: Progress Since the Last Visit**.

The department's intention in the next action plan is to be more proactive — to respond to the concerns of the visiting team but also to address the department's own conclusions. These will be expressed as strategic goals that can give a higher order to individual actions and that also can be mapped to the principles and goals of Vision 2022; the Diversity Framework; the new college strategic plan which will be developed in 2016-17; and, of course, NAAB's five defining perspectives.

Data and Information Sources. To inform the review and planning process, the Office of Institutional Research (IR) furnishes each department with a statistical profile, which is updated annually to provide six to seven years of data on the following metrics:

- Bachelor's and master's degrees awarded.
- Selection and yield rates for first-time freshmen (FTF), new transfer students (NTR) and new graduate students.
- Undergraduate and graduate enrollment.
- FTF and NTR persistence and graduation rates.
- Student credit unit (SCU) production.

For the purpose of comparison, IR provides equivalent data sets for each college and the university. To help visualize this information, which is presented in tabular form, Academic Programs repackages selected components — selection and yield rates, persistence and graduation rates, and SCU production — in chart form.

Institutional Planning Initiatives. While a six-year action plan may provide a sufficiently long-term view for the department and program, the institution must take the longer view. In Vision 2022 (see http://president.calpoly.edu/vision-2022-future-cal-poly), President Jeff Armstrong has outlined a broad picture of the university's future based on four guiding principles:

- Learn by Doing.
- Student success.
- Excellence through continuous improvement.
- Comprehensive polytechnic university.

Based on these principles, Vision 2022 develops a number of strategic campus goals related to the campus as a residential community, an innovative curriculum and co-curriculum, interdisciplinary experiences for students, diversity and inclusivity, employee recruitment and retention, faculty and student research, etc.

Vision 2022 provides the framework for two other significant planning initiatives that will guide Cal Poly's development over the next 20 years: the academic plan (see Section 4.17 Institutional and CAED Strategic Planning), which establishes enrollment goals for each college and the university as a whole, and the campus master plan (see http://masterplan.calpoly.edu), which projects the improvement of the campus lands and buildings to meet these goals. The academic plan was developed during AY 2014-2015 through a consultative process involving department, college, and campus leadership. The master plan is still under development through a similar process.

The academic plan expects that over the next 20 years, the university's on-campus student headcount will grow **18.9%,** from **21,027** in Fall 2015 to **25,000** in Fall 2035. During the same period, the CAED's total student headcount is expected to grow **24.2%**, from **1,884** to **2,340**, stabilizing at **9.2%** of the university's total headcount. However, the committee developing the plan cautioned that the college headcount is "more ambitious than likely applicant pools and future markets would support." [28] A related analysis found that, for the college, "undergraduate enrollment has been uneven over the past 30 years, with a short-term peak between 2005-2010," and that "only Architecture is very selective."[29]

I.1.6 Assessment

According to the *2014 Conditions*, the Architecture Department must demonstrate that it regularly assesses the following:

- How well it is progressing toward its mission and stated objectives.
- Progress against its defined multi-year objectives.
- Progress in addressing deficiencies and causes of concern identified at the time of the last visit (see **Section 2**).
- Strengths, challenges, and opportunities faced by the program while continuously improving learning opportunities.

The department must demonstrate that the results of self-assessments are regularly used to advise and encourage changes to promote student success. The department must also demonstrate a well-reasoned process for curricular assessment and adjustments, and it must identify the roles and responsibilities of the personnel and committees involved in setting curricular agendas and initiatives.

Self-Assessment Process. Like other NAAB-accredited programs, the Architecture Department maintains a relatively informal assessment process, which is based on regular reviews of student work by all faculty members. In addition to these course- and area-oriented opportunities for learning assessment, the faculty addresses larger programmatic issues at an annual retreat, which takes place in the week before fall classes start. In AY 2015-16, as the foundations of the self-study were being laid, the Architecture faculty met quarterly to address major topics of the self-study — the learning culture, long-range planning, and five defining perspectives.

In response to best practices, Cal Poly requires each department to engage in a more formal process of assessment. Every degree program must have a set of program learning objectives (PLOs), which are published in the catalog as expectations for all graduates of the program. Ideally, every program should have a plan for addressing its PLOs over a single cycle of program review.

The BARCH PLOs were originally written to reflect the University Learning Objectives (ULOs), which are expectations for all Cal Poly graduates, in a form that would make them more specific to graduates of the BARCH Program. In 2015-16, the PLOs were rewritten to also reflect the language of the four realms that frame the NAAB Student Performance Criteria (SPC). The current language is listed on the Bachelor of Architecture page of the Cal Poly Catalog (see http://catalog.calpoly.edu/collegesandprograms/collegeofarchitectureandenvironmentaldesign/architecture/bachelorofarchitecture/).

Because the BARCH curriculum is defined by sets of yearly courses design courses, the Architecture Department has tended to structure its assessment plans by year levels rather than by PLOs. This has the advantage of providing a more holistic point of view since every year of design will tend to address multiple PLOs at an appropriate level.

Curriculum Assessment: Direct. At the beginning of each academic year, Academic Programs asks each department to submit an assessment plan for that year. In 2015-16, the Architecture Department submitted a plan for a rubric-based assessment of Third Year student work addressing the PLO that now reads, “Synthesize a wide range of variables that contribute to an integrated design solution.” This PLO corresponds to NAAB’s *2009 Conditions of Accreditation* described as B6 Comprehensive Design, which was one of the SPC that the visiting team had found unmet. As one would expect, the department was concerned that this deficiency be corrected. The intention of the assessment was to ensure that the student work being collected for the current review would satisfy the *2014 Conditions*.

The *Third Year Integrative Building Design Rubric* (see Section 4.3 Assessment) was designed to demonstrate proficiency in the integration of buildings systems. The nine criteria, which were grouped

under the headings of “Process,” “Codes,” “Environmental Responses/Systems,” and “Structural Systems,” were closely keyed to the SPC. The performance expectations were developed from the standpoint of demonstrating student achievement to a visiting team — what kind of specific evidence was necessary, whether the evidence was found in the student project, and at what level the expectation was met.

Faculty reviewers consisted of Third Year Design instructors keeping in mind that all lecturers regularly teach design studios and technology courses across different year levels of the curriculum (at 1st, 2nd, or 4th year). The instructors began the assessment process by each sharing their own understanding of what would constitute a demonstration of student achievement of a complex outcome focusing on the noted deficiencies in student performance criteria. The results proved the need for improvement. The faculty left with greater clarity about the work required and a plan to demonstrate specific performance achievement in the coming quarters. Future iterations of this self-assessment process would include a more rigorous project sampling and benchmarking methodology with a larger population of reviewers.

Curriculum Assessment: Indirect. In addition to this direct assessment of student learning, the department incorporated a question in the Studio Culture Survey that was intended to indirectly investigate student perceptions of their own learning. The question was based on one in the National Survey of Student Engagement (NSSE), which Cal Poly students take once every three years. The question asked: “How much has your experience in the BARCH program — both major and support courses — contributed to your knowledge, skills, and personal development in the following areas?” The question’s ten parts outlined standard components of academic achievement — writing, speaking, thinking critically, etc. — that also correspond to important SPC.

The results were reassuring given what one might expect from a studio-based architecture curriculum in which students are constantly challenged to explain their decision-making (see Section 4.2 Studio Culture). The strongest response was to “Thinking critically and analytically,” with **92.9%** of student respondents saying “Very Much” or “Quite a Bit.” The second strongest response was to “Working effectively with others,” with **85.0%** saying “Very Much” or “Quite a Bit.” This was a testament to the amount of group work that students experience in their ARCH courses. The third strongest response was to "Speaking clearly and effectively,” with **77.9%** saying ““Very Much” or “Quite a Bit,” as you might expect from students who are frequently asked to present their own work. Close behind were "Solving complex real-world problems" and “Developing or clarifying a personal code of ethics,” with **73.5%** and **73.4%**, respectively, saying “Very Much” or “Quite a Bit.” The strong response to the last area suggests that students are frequently being asked to clarify their professional values.

In contrast, the weakest response was to “Writing clearly and effectively,” with **30.9%** saying “Very Much” or “Quite a Bit” and **23.0%** saying “Little” or “Very Little.” This was not a surprising result, given the conventional expectation of an architecture curriculum as being strong in formal literacy, but weak in verbal. The second weakest response was to “Analyzing numerical and statistical information,” with **42.5%** saying “Very Much” or “Quite a Bit,” and **21.2%** saying “Little” or “Very Little.” This was disappointing given the curricular investment made in engineering and building science courses.

Somewhere in the middle, but still positive, were the responses to “Understanding people of other backgrounds,” “Acquiring job- or work-related skills,” and “Being an informed an active citizen,” with **69.0%**, **66.4%**, and **59.2%**, respectively, saying “Very Much” or “Quite a Bit.” The response to “Acquiring job- or work-related skills” was particularly surprising. The department intends to explore the meaning of this and other results through student focus groups in 2016-17.

Faculty Feedback. The Faculty Survey of Student Engagement (FSSE) is a companion to the NSSE, which tests faculty perceptions of student engagement with a parallel set of questions. Inspired by FSSE, the Architecture Department may administer a faculty version of the Studio Culture Survey in 2016-17.

Graduate Feedback. Career Services conducts an annual survey of Cal Poly's most recent graduates, the results of which are compiled into the Graduate Status Report (GSR). This report includes information on job placement (employer, position, and salary) and admission to graduate or professional schools.

The most recent survey of **125** BARCH graduates in 2014-15 had a **43.2%** response rate. Of the **69** respondents, **78.2%** were employed full-time, **5.8%** were employed part-time, **5.8%** were enrolled in graduate school, and **10.2%** were still seeking employment. Removing the two extremes, their salaries ranged from $30,000 to $70,000; the median was $47,000. Most graduates reported that they were in a design position.

Employer Feedback. The Dean's Leadership Council (see http://www.caed.calpoly.edu/caed-deans-leadership-council) was formed in September 1988 to help the college fulfill its mission and goals. The council currently consists of a diverse group of 22 individuals who are business, committee, and professional leaders. They assist the college and its departments by providing advice, advocacy, access, and resources.

The Cal Poly Architecture Advisory Council (see http://architecture.calpoly.edu/alumni/advisory-council) was formed in 2015-16 to provide current and essential professional input to the department. More specifically, the 14 members advise the department on the needs of industry and the profession so that future graduates can be well prepared to enter the workforce and become successful professionals. The members also assist the department in meeting its advancement goals.

Course Evaluations. According to the faculty contract, "student evaluations shall be required for all classes taught by each faculty unit employee, unless the President has approved a requirement to evaluate fewer classes." At Cal Poly, the President and Provost have exempted from this requirement low-enrollment, capstone, and cooperative education courses.[30]

The primary purpose of student evaluations is to promote the improvement of instruction, but the results are also placed in each faculty member's personnel file and considered during periodic reviews and performance reviews for retention, promotion, and tenure.[31]

Curriculum Development. The idea of shared governance, which is fundamental to academic life, is nowhere better illustrated than in the curricular process, which involves the faculty in assuring the quality of the course or program proposal and the administration in assuring the resources to support it.

At Cal Poly, the review of such proposals takes place at three levels — department, college, and university — with new programs also requiring approval at the system level. The campus process is described in the Curriculum Handbook (see http://registrar.calpoly.edu/curriculum-handbook), which includes a chart of the curriculum development and approval process (see http://registrar.calpoly.edu/review-process).

With some exceptions, new courses, edits to existing courses, and new minors are proposed only once during the two-year catalog review cycle. Cal Poly is currently in the middle of this cycle, preparing for the 2017-19 Catalog. The Curriculum Management System is an electronic workflow that moves the online proposal to the appropriate reviewers.

Currently, once a course has been approved, it can remain in the catalog indefinitely, but there is a discussion at the university level that might lead to a process of renewing the information originally provided in the course proposal. In the meantime, the Architecture Department sees the creation of course outlines for the APR as an opportunity to renew its own documents. The outlines appended to this report propose changes to course descriptions that will be considered by the Architecture faculty in 2016-17 and submitted during the next catalog review cycle.

Section 2. Progress since the Previous Visit
In this section the program must document all actions taken since the previous visit to address *Conditions Not Met* and *Causes of Concern* cited in the most recent Visiting Team Report (VTR).

Program Response to Conditions Not Met
The department has focused on an intensive redevelopment of the third year design and building technology sequence in order to respond to the three SPCs with deficiencies indicated in the 2011 VTR. As was noted in the 2012 Annual Report Part II, the program saw the three SPCs as linked. A comprehensive assessment of student work was conducted at the end of Fall Quarter 2015.

B.2. Accessibility

Visiting Team Report (2011). *Students seem to show some limited understanding of barrier free design, as it relates to accessible restroom facilities, however, no evidence was found in the student work that addresses accessible site design. Accessibility, which needs to be demonstrated at the ability level, requires that evidence be present in projects for which it is not the primary focus of the course. The capacity to embed accessibility into fundamental, conceptual design is missing, or not consistently demonstrated in the work.*

Program Activities in Response (2011-2016). See below, under B.6 Comprehensive Design.

B.5. Life Safety

Visiting Team Report (2011). This criterion is not met. There is inconsistent evidence that the ability to apply basic principles of life-safety is incorporated into the design process. There is substantial evidence that it is incorporated into lectures, but not shown in the student work as required by the ability level.

Program Activities in Response (2011 – 2016). See below, under B.6 Comprehensive Design.

B.6 Comprehensive Design

Visiting Team Report (2011). *Evidence of comprehensive design is inconsistent across coursework. Realm A skills are prevalent, as well as structural systems and site design. Accessibility, sustainability, life safety, and environmental systems are more inconsistently applied. Because of the variable scope and scale of individual studio projects, evidence is lacking that every student meets this criterion. The ARCH 481 / ARCH 492, cited as playing a major role in meeting this criterion, allows a student to select a highly theoretical or philosophical problem with no assurance that they will complete a comprehensive architecture design problem.*

Program Activities in Response (2011 – 2016). The Architecture Department responded to the three unmet conditions by making them the focus of an action plan for the period under review (see **Section 4**). At Cal Poly, the action plan is the third stage of program review, which describes the department's goals and the steps for achieving those goals — in effect an operational strategic plan.

After considering the character of each year within BARCH curriculum, the department decided to concentrate its action plan efforts on the third-year courses in ARCH and ARCE. The focus of these courses changes from quarter to quarter. In fall, it is building systems through case study methodology; in winter, the focus is on the building cross section and solar orientation/shading/ventilation; in spring, the focus is on cladding systems and structural integration.

Winter and spring courses are linked to create a two-quarter, comprehensive design experience, which serves as the culmination of a two-year sequence of courses in architectural design (ARCH 251, 252, 253, 351, 352, and 353), engineering (ARCE 211, 212, 225, 315, and 316), practice (ARCH 241, 242, 341, and 342), and environmental control systems (ARCH 207 and 307). Reconceived in this way, the sequence serves as the integrative core of the curriculum, building on the first-year, foundation-level experience and the second year fundamentals of architectural technology, and preceding the fourth-year, off-campus programs and the three-quarter, fifth-year thesis project.

Because of the substantive changes in these conditions between the 2010 and 2014, we address this further under Program Response to Change in Conditions below for a more specific account.

Program Response to Causes of Concern

A. Budget

Visiting Team Report (2011). *Budget cuts are a reality facing the college and the department. The provost is requiring a balanced budget. The team found that the department faculty and staff have been trying to address the budget cuts, but their efforts are not productive because the specifics of the new budget have not been available to them, or what has been available, has been to subject to constant change. The cuts have the potential to negatively influence the program. The lack of budget clarity is creating uncertainty, anxiety, and a negative environment for faculty, staff, and students. The team believes that this critical situation will require leadership from the administrators and faculty in order to make the necessary cuts. It will also require transparency and inclusionary processes. The dean, associate dean, department head, faculty, staff, and students have to work together and in a timely manner to develop long and short-term strategies for delivering the program within the new budget realities while protecting its quality to the highest degree possible. Related to the budget and contributing to anxiety, and the need for the program department head, faculty, and staff to plan for change, is the issue of the new enrollment cap imposed by the university. The lack of transparency in decision-making regarding enrollment numbers is creating confusion for staff, faculty, and students. Because of a very bleak funding trajectory, alternative funding methods are more important now than ever. Past funding levels will most likely not reappear from state sources.*

Program Activities in Response (2011-2016). In the wake of the 2008 financial crisis, the State of California was in a revenue deficit that forced unpredictable budget cuts to the California State University (CSU) system. This reduction forced the CSU to cut its operating budget allocation to each of the 23 campuses. Because of inadequate resources being provided on a per student basis, the decision was made administratively to cut to enrollments at campus, college, and department levels. As an institution with a relatively large number of high-cost, lab-intensive programs, Cal Poly was especially challenged to maintain program quality in the face of these cuts. The faculty and administration for the BARCH program spent countless hours examining ways that department operations and curricular change could alleviate some of the budgetary strain. Staff positions in the Architecture Department were consolidated from four to three. Course modifications that could simultaneously improve pedagogy and generate savings were sought. Several of these modifications were implemented for 3rd year design and practice and 4th year practice.

In 2012, the voters of California approved Proposition 30 that imposed an increase on sales and income tax. As part of the recovery effort, the Governor entered into an agreement with the CSU to freeze tuition for four years and in exchange, receive more funding from this revenue stream. The state has been able to restore a significant amount of funding to the CSU that has filtered down to the department. Enrollments have been restored to a stable level, and Cal Poly is planning for the future through academic and physical master plans.

The pressure on the department to reduce the high cost of the BARCH program has lessened at the present time. This is a result of the generally improving financial situation in the state and continued streamlining and efficiencies. It also reflects the program's success in attracting out-of-state domestic and international students who pay the full cost of their education and are thus of benefit to the university's finances.

Finally, the financial model for fourth-year, off-campus programs offered for architecture students through the Office of International Education and Graduate Programs (IGEE) has become clearer from administrative, faculty and student perspectives. Cost models are being developed earlier in the program recruitment cycle. Non-state (self-support) programs fully recover the cost of salaries and benefits that then do not need to be paid from the state budget allocation.

B. College-Based Fees (CBF)

Visiting Team Report (2011). *The distribution and management of the college-based fees (CBF) have become confusing to students. They have seen tangible benefits in the equipment that a portion of those funds has purchased in the past. Students expressed distress that the entire fee is being used without their input. They would like a voice in the disposition of some of the funds. This has impacted their trust of administrative decisions and their commitment to supporting future student enterprises. As stated in the previous NAAB team's VTR (2005), the CBF funding mechanism is considered problematic and non-sustainable. The college should consider putting in place and/or publishing guidelines regarding the allowable allocation of these funds. Greater budget and planning transparency should be made available to those participating in the process.*

Program Activities in Response (2011-2016) The history of campus-based fees is based on a principle of student consultation in the introduction and administration of the fee. This included the CBF that anticipated a series of college-based student committees to advise the dean and department heads on the use of the funds. The reality since 2008 has been that all or most of the CBF has been devoted to faculty salaries to ensure sufficient teaching capacity and the ability to offer enough courses necessary for students to graduate. This decision was made with student input.

As budgets have improved, there has been a growing increment of student fees that are available for discretionary enhancements. The CBF student advisory committee and faculty ombudsman will be called into action again this fall as funds are once again available for allocation.

C. Lack of Fiscal Planning

Visiting Team Report (2011). *Faculty regularly expressed concern over inconsistent annual budgets. Over the past several years, the amount of available funds assigned to the college has continued to drop at irregular and irrational intervals, making it difficult for the staff to plan both annual budgets, as well as long term spending strategies. At the time of the visit, the team could find no documentation of a strategic budget plan that extended beyond the current academic year. This appears to be causing concern for faculty and staff, who find it difficult to plan for courses, off-campus opportunities, and maintenance of current equipment.*

Program Activities in Response (2011-2016) Budget planning and fiscal processes have also greatly improved in the college through a restructuring in 2014-16 in the Dean's Office. Previously there was an Associate Dean dealing with all college matters, there are now two Associate Deans – one for Finance and Facilities and another for Academic Affairs. Distributing the managerial load in this way has greatly enhanced the effectiveness of each for the entire college.

Creating a centralized node for budget reporting and management through the CAED Dean's Office has improved communications and transparency regarding sources and uses of funds for the department. The Assistant Dean for Finance meets quarterly to discuss budget vs. actual spending. She also receives and analyzes Faculty Activity Data (FAD) to monitor productivity. Presentations to the faculty show a clear statement of sources and uses with improved data reporting and reliability.

Centralizing operations (e.g., shop, computer technology) that were formerly housed by individual departments is also a more cost effective use of resources with clearer lines of reporting authority. Added to this, an Assistant Dean for Finance was appointed to handle data analytics and financial management.

The Office of International, Graduate and Extended Education (IGEE) has also greatly improved their processes in how they service program providers. Architecture is a primary consumer of self-support services and has worked closely with IGEE to systematize the program development process including budgets. There are still some areas of concern in terms of predictability of overhead fees and managing cost implications of fluctuating student enrollments for these programs.

D. Continuing Education

Visiting Team Report (2011). *Before implementing perceived methods for budget savings, such as the moving of courses in both summer and off-campus programs to continuing education, the full impact to the department, college, university, and students must be explored and accounted for. The school may*

utilize campus services and resources as needed to estimate the costs of all initiatives. What may appear to be beneficial in the short term could ultimately decrease the department and/or college's capacity to justify state financial investment in the department in terms of space, faculty, and other operational support in the short and long terms. In addition, the financial impacts to the students should be fully studied. Additionally, the lack of predictability and planning around these areas is creating undue uncertainty and impacts on those wishing to participate. The team noted that there was a lack of a discernable long-term financial plan or forecast.

Program Activities in Response (2011-2016) The decision to move courses International, Graduate, and Extended Education (IGEE), reflects policy decisions that have been above the department level and due in part as a response to cuts in state support. For domestic and international programs there remains an option to run through the state with the exception of summer that is entirely through self-support. With self-support, any off-campus program necessarily charges a student fee to that is commensurate with the full cost. When an off-campus program is run through the state, students pay their regular tuition and fees plus a supplemental fee for the added cost related to travel, instruction, etc. Self-support programs take some of the burden off the state funds received by the college through recovery of salary and benefits, however, there are some forms of financial aid that are ineligible to cover these costs. Another aspect of self-support is that a supplemental non-resident fee does not exist – in other words, all students pay the same fee on these programs. For non-residents, self-support can provide a tremendous savings which can be an incentive to participate. To insure accessibility, the suite of off-campus options includes differing term duration (from one quarter to a full academic year), self-support, state support with supplemental (field-trip) fees, and on campus options.

Policies and procedures in IGEE have achieved better alignment since the last visit, however, variability in overhead remains a concern. In addition, a better mechanism is needed to provide for surplus/deficits due to unanticipated changes in student enrollment. In addition, use of third party providers for international travel and mandatory insurance has added extra cost for students and faculty due to increasing concerns related to how the university manages risk and provides for student and faculty while abroad.

The Cal Poly International Center (part of IGEE) has made significant strides in improving the systematizing of off-campus programs. Program options (including costs, curriculum, housing, etc.) are more comparable in their newly implemented software called TDS for Terra Dotta System. This comparability will soon include domestic off-campus programs (now called Architecture Away).

The greater advanced planning and collaboration efforts taking place between the Architecture Department. CPIC, and EE have allowed us to successfully send upwards of 80% of 4th year students off-campus for one or more terms each year. The space saving on-campus amounts to 7-8 studios each term that are not used by the department. The university recognizes the financial and facilities benefits of this approach to instruction and has acknowledged the Architecture Department as a model for other programs to consider as part of their 2022-2035 academic master planning effort.

E. Student Registration

Visiting Team Report (2011). *Student mistrust regarding the fairness in the registration system is pervasive. The student perception is that the priority system of registration is inconsistently deployed between the university registration protocols and the timing of department level faculty assignments. This misalignment between university registration and architecture department class and/or faculty assignments, leads to students feeling there is no logical strategy available to them to reap the benefits of a 'priority' system established by the university, yet undermined by late department assignments.*

Program Activities in Response (2011-2016) Since the last visit the university has replaced priority registration with a system based on progress to degree. (See Registration FAQ.)

The department has also taken steps to improve course access during the registration cycle. Rather than register for a 9-unit studio/practice course in the first round of university registration when units are capped at 16, students reserve their studio seat by registering only for a 4-unit practice course. They can then register for structures, general education, or professional electives within their remaining allocation

up to the 16-unit maximum and register for studio after the 16-unit cap is lifted. For students who find all studio courses filled at the time of their registration appointment, the department provides a Studio Request Form online. The department also posts studio prospecti in fifth year and for the two-quarter third year studio to help students make informed decisions in choosing an instructor. This is especially important for studios that span multiple terms such as the three-quarter senior thesis studio, ARCH 481, or the two-quarter experience of ARCH 352 and 353. In addition, faculty hold information sessions before registration opens for the subsequent term. For first-year students entering second year, and second-year students entering third has helped students make better informed registration choices.

Program Response to Change in Conditions
SPC B2 Accessibility was merged with B5 Life Safety to form the more concise B3 Codes and Regulations.

The new **B3** is addressed in the following second-year courses:
In ARCH 242, the lecture content covers both egress and accessibility issues, the classification of buildings into occupancy and construction types, the implications of each in terms of area and height restrictions, and the general purpose and principles of planning codes. Students received classroom and take-home assignments that required them to demonstrate their understanding of all these topics. One used the campus as a living lab by asking students to demonstrate the common path of travel from the nearest accessible parking space to a classroom and restroom inside a campus building. In another real-world exercise, students analyzed fictional development proposals for sites in San Luis Obispo, looking for their faults in comparison to the city's planning ordinances, and preparing a new proposal that would align with those provisions.
In ARCH 252, as part of the Studio Integration Exhibit, students submitted a poster summarizing the integration of egress and accessibility principles into their design projects.

B2 is further addressed in the following third-year courses:
In ARCH 341, lecture content provides the basis for vignette-type exercises in the activities.
In ARCH 351, the common hour shared by all studio sections provides a venue for faculty and student presentations on accessibility and egress as well as other selected topics. All third-year pinups focus on the display of egress and accessibility diagrams illustrating the common path of travel from inside the building to the edge of the site.
The common hour has been particularly impactful in promoting the alignment of learning experiences among studio sections.

B6 Comprehensive Design was revised to form C3 Integrative Design. In this process, the specific list of SPC associated with B6 was eliminated and the focus of C3 was placed on a more general statement of the student's "ability to make complex design decisions … while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies." The revised C3 is addressed in the program's third year along with C1 Research and C2 Integrated Evaluations and Decision-Making Design Process.

C1 is addressed in the lecture component of ARCH 341 via an assignment requiring students to develop building case studies. The vehicle for addressing C2 and C3 is a two-quarter project that begins in ARCH 352. Although the nature of the project varies from studio to studio, the outcomes and some of the more important deliverables are held in common. The deliverables include the following:
In ARCH 352, a poster illustrating the integration of environmental systems with the design concept.
In ARCH 353, a composite drawing showing a large-scale wall section with the corresponding portion of the building plan and elevation.
The content of ARCH 353 has been changed to allow for greater integration of structural considerations in the development of the design project bringing instruction normally associated with ARCE into an ARCH course.

To encourage the alignment of learning experiences among studio sections, the third year faculty wrote a white paper on systems integration titled *Design Integration* (see Section 4.3 Assessment), which was originally directed to faculty but eventually shared with students.

Section 3. Compliance with the Conditions for Accreditation

I.2.1 Human Resources and Human Resource Development

According to the NAAB 2014 Conditions, the program must demonstrate that it has appropriate human resources to support student learning and achievement. This includes full and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff.

The program must demonstrate that it balances workloads of all faculty to support a tutorial exchange between student and teacher promoting student achievement. The program must demonstrate that an IDP Coordinator has been appointed, is trained in issues of the IDP, has regular communication with students, and fulfilling the IPD training and development programs. The program must demonstrate that faculty and staff have opportunities to pursue professional development that contributes to program improvement. And the program must describe support services available to students in the program, including but not limited to academic and personal advising, career guidance and internship or job placement.

Support for Teaching and Learning in Student Achievement

Remaining current in one's field is essential to a vibrant professional degree program. This includes the scholarship of teaching, application, and discovery. Cal Poly Architecture faculty are actively engaged in publishing and presenting their work nationally and internationally. As described earlier, studio field trips are an important component to student learning and exposure to wider issues. On-campus, faculty regularly participate in workshops and learning communities run through the Center for Teaching and Learning Technology (CTLT) described below. A CAED faculty committee organizes an effective lecture series that brings important issues and ideas to the campus in order to develop the didactic learning.

Full and Part-time Instructional Faculty. At Cal Poly, the teacher-scholar model combined with a learn-by-doing philosophy are intrinsically linked to faculty, staff, and student achievement. Resources are in place to support faculty, staff, and students as well as the peer-to-peer and peer-to-mentor exchange at all levels. (For a description of faculty credentials see: Faculty CVs and Faculty Expertise Matrix in Section 4.)

Faculty Workloads. The Collective Bargaining Agreement (CBA) is the governing document for faculty work conditions. The current contract covers the time period from November 2014 to June 2017 and was amended in 2016.

In the CSU, teaching loads typically equate to 12 weighted teaching units (WTU) per quarter for tenured and probationary faculty plus 3 weighted teaching units per quarter for instructionally related service (such as committee work or advising) for a total of 15 wtu/quarter. Lecturers teach up to an equivalent of 15 wtu/quarter, but have no service requirement. Virtually all faculty teach design studio during at least one quarter per year. An exception is architectural history faculty who teach a combination of large lecture and small seminar classes making up a full-time load.

There is a relationship between student credit units (SCU), faculty workload in weighted teaching units (WTU), and contact hours based on the mode of instruction as illustrated in the table below. A more detailed explanation of the k-factor multiplier can be found on the Academic Programs website (see http://www.academicprograms.calpoly.edu/content/academicpolicies/policies-courses/course-classification).

Figure B: SCU, WTU, Contact Hours Summary

Mode of Instruction	Student Credit Unit (SCU)		CSU K-factor multiplier		Faculty Weighted Teaching Unit (WTU)	Course Contact Hours
Activity	2	x	1.3	=	2.6	4
Lecture, seminar, or discussion	4	x	1	=	4	4
Studio/Lab	5	x	2	=	10	15

Examples of typical loads are: A tenured or tenure track faculty member might teach three studios/year plus one large lecture class (for 2nd, 4th or 5th year) or three studios, practice/ecs, and one seminar as a full-time load. A full-time lecturer in 2nd year might teach three studios/year plus five activity sections.

Large lecture courses such as architectural history receive double the amount of teaching credit due to excess enrollment which is defined as >120 students. In addition, to compensate for large lecture courses that have activities or discussion sections associated with them (e.g., building technology: practice/ecs), faculty receive additional credit in the form of assigned time for coordination as well as teaching units for excess enrollment if over 120 students.

Lastly, to reduce the administrative burden, instructional student assistants (ISAs) aid faculty with posting and recording of grades in these courses. Typically, there are three ISA's for a 220-student class.

Student/Faculty in Studio Ratios. The following table shows the relative constancy of studio size over the past six years. According to CSU formulas for space utilization, lower division laboratories are based on 22-student class size. First year studios, as hot labs taught in three separate time slots, are the only class size with a maximum of 24 students. While studio class size is high so too are contact hours at 15 hours/week for 2nd through 5th year design except for 3rd year design which is 12 hours/week plus a common lecture 1 hour/week.

Figure C: Student to Faculty Studio Ratios

	Number of Students						
Cohort	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**Average**
1st year	22.3	24.2	23.7	24.1	23.0	22.7	**23.3**
2nd year	17.0	17.4	17.6	16.8	17.0	18.2	**17.3**
3rd year	16.4	18.1	19.1	20.5	17.9	18.5	**18.4**
4th year	19.0	14.0	16.0	15.5	19.0	18.7	**17.0**
5th year	18.0	17.7	19.8	18.6	20.1	20.1	**19.1**

Faculty Leaves. Faculty are eligible for sabbatical leaves every 7th year and difference-in-pay leaves every 4th year. Sabbatical leaves are at full pay for a one-quarter leave, ¾ pay for a two-quarter leave, and ½ pay for a three-quarter leave. Difference-in-Pay leaves pay faculty members the difference between their salary and a minimum instructor salary. Personal or professional leaves without pay may be requested at any time. The latter requires approval of the tenured faculty committee, department head, dean, and the provost. The former requires the same approvals except the tenured faculty committee.

More information can be found on the Academic Personnel website (see Section 4.7 HR Development Policies).

Figure D: Faculty Leaves 2010 – 2016

Year	Name	Rank	Leave Type/Duration/Pay
2015-16	Arens, Robert	Tenured	Sabbatical - Academic Year - 1/2 Pay
2015-16	Cabrinha, Mark	Tenured	Sabbatical - Fall Quarter - Full Pay
2014-15	Freeby, Brent	Full-time Lecturer	Leave of Absence – Academic Year
2014-15	Olsen, Clare	Tenure Track	Leave of Absence - Fall Quarter
2014-15	Trudell, Carmen	Tenure Track	Leave of Absence - Academic Year + 1Qtr
2013-14	Jones, R. Thomas	Tenured	Sabbatical - Winter Quarter - Full Pay
2011-12	Choi, Don	Tenured	Sabbatical – Fall/Winter Quarters - 3/4 Pay
2010-11	Reich, Jonathan	Tenured	Sabbatical - Spring Quarter - Full Pay

Fee Waiver Program. Available to faculty and staff, employees may take individual classes at Cal Poly or enroll in a degree program. Information is available at: https://afd.calpoly.edu/hr/fee_waiver/.

Faculty Early Retirement Program (FERP). During the accreditation period from 2010-2015, six (6) faculty took advantage of FERP. A faculty FERP allows any full-time faculty member to reduce their teaching load for a five-year period after which time they retire from the university. A typical schedule for these faculty is two quarters on at full load and one quarter off.

Rehired Annuitants. Rehired Annuitants are faculty officially retired from Cal Poly but who are eligible to be rehired through the part-time pool after waiting180 days. We currently have one retired annuitant who is leading a group of Architecture students at our newly formed study center in Mexico.

Financial Resources. Faculty are provided professional development resources according to departmental policy (see http://architecture.calpoly.edu/faculty/administration/faculty-development-funds). Tenured and probationary faculty are allotted $2,000/year and tenure-track candidates $3,500/year for qualifying conferences. Funds may be used for travel expenses related to presenting or moderating a paper, organizing a workshop or conference, or participating on a conference panel that advances the faculty member's professional development goals within the department and college. All faculty (including FERPs and part-time faculty) may request up to $250/quarter or $500/year for course-related travel and materials.

This year the CAED approved funding for memberships and licenses for all full-time faculty in the college including tenured, tenure-track, and lecturers. The program is intended to support involvement in activities that further professional development of the faculty while increasing the visibility of the college in the professional practice community. It will help faculty attain or sustain professional qualifications that are required or valued by professional programs. The maximum reimbursement amount is $800 to cover the fee required for one professional license or credential plus the cost of one professional organization membership.

In November 2014, a new provision of the faculty contract stipulated that tenure-track faculty will receive a one-third reduction in teaching load for the first two years of their probationary period. Architecture currently has five probationary faculty receiving the benefits of release from teaching to develop as their teaching, research, and creative activities agenda as they progress towards tenure. This provides a significant boost to junior faculty in a teaching-intensive university.

Hearst Lecture Series. For over a decade the Hearst Family Foundation has supported the CAED lecture series. Architecture faculty participate in an interdisciplinary committee to develop the series each quarter in order to bring a wide range of high quality professionals to the campus for the benefit of

students, faculty, and the community alike. See Section 4.14 Teaching and Learning Activities for list of the Hearst Lecture Series from 2010-2016.

University Infrastructure to Support Professional Development

Center for Teaching and Learning Technology. CTLT formed in 2012 out of a merger between the former Center for Teaching (formed in 2001) which through the Office of Academic Personnel offered faculty workshops, grants, and events and Academic Technology operating as part of Information Technology Services which offered assistance with instructional technology. The CTLT is staffed with experts in instructional design, writing, and inclusive excellence who are available campus-wide to support the teaching and learning environment at Cal Poly. In addition to short courses, learning communities, book circles, and workshops, they offer mini-grants to faculty related to teaching innovation. As of 2014, CTLT is housed within Academic Programs and Planning.

Over 20 faculty have participated in CTLT learning communities, teaching effectiveness workshops, and other opportunities provided by the campus.

Office of Research and Economic Development. The Office of Research provides information, guidance, and services to Cal Poly faculty, administrators, and senior staff engaged in extramurally funded research, curriculum development, and community service projects. Within this unit, the Grants Development Office (GDO) offers a full-service academic support staff to aid faculty in identifying grant, fellowship, and other research related funding opportunities. During the pre-award phase, GDO assists with budget development, grant writing, and compliance services (including interpreting sponsor guidelines, meeting human subject and intellectual property policies, etc.). The Office of Sponsored Programs (OSP) provides post-award administrative oversight and fiscal services on funded research and projects through the Cal Poly Corporation.

For a list of faculty papers and presentations see: http://architecture.calpoly.edu/faculty/research/papers

ABC Workshops. Professional development opportunities also exist for staff at Cal Poly. One form of this is the ABC Workshops that cover fundamental principles and practices across all university domains from finance to procurement to international travel and so on. These workshops are also suitable for administrators such as department heads and chairs.

Student Success and Student Support Services. Cal Poly has significantly expanded advising services for students starting with a centralized hub called the Mustang Success Center (see http://advising.calpoly.edu) that directs first year students, transfer students, and Cal Poly scholars to resources that will help them navigate academic or personal issues they may be facing.

Connections for Academic Success (see http://www.sas.calpoly.edu) serves selected students groups including those from the Educational Opportunity Program (EOP) designed to improve access, retention, and graduation of students who have been historically, economically, and/or educationally disadvantaged.

CAED Advising (see http://www.caed.calpoly.edu/content/current/caed-advising) offers students from the five departments in the College of Architecture and Environmental Design academic advising including general education course selection, change of majors, and progress to degree.

The Architecture Department also provides student advising at the department's center on a drop-in basis (see http://www.architecture.calpoly.edu/current/advising). Faculty elect to hold office hours in the advising center where they can more directly serve student needs and have the support from the department staff, head, and associate dean.

Faculty have been offered several Advising 101 Workshops to learn the basics of the flowchart, catalog, change of major processes, petitions for credit, etc. Results of the Studio Culture Survey showed that students rely on their studio instructor and peers as a reliable advising source of information. For this reason, the department has started developing further guidance for faculty, called *INstudio*, reviewing student records for their class and trying to spot issues before they escalate.

For job placement, Career Services (see http://careerservices.calpoly.edu) coordinates posting of job opportunities (including internships, summer employment, and post-graduation permanent placement) and arranges interview schedules for students and prospective employers

Architectural Licensing Advisor and Intern Development Program. Mark Cabrinha has been the Architecture Department's Architectural Licensing Advisor for the last three years during a time of change for the Intern Development Program (IDP) now known as the Architectural Experience Program (AXP). NCARB has been steadily shifting its focus from the internship to licensing via the Architectural Registration Exam. This move reflects the concern that many professionals are working, but choosing not to take the exam or at least taking far longer than the expected three to five years (on average more than eight).

Consequently, at the 2014 IDP Coordinators Conference in Miami, a title shift was put in place, from IDP advisor to Architectural Licensing Advisor (ALS), and the process was streamlined by eliminating "supplemental hours." While reducing the total number of hours required to complete the process, the latter also eliminated many of the hours that students were able to acquire in school through clubs, volunteer work, etc.

As a part of his professional development activities in support of his ALS responsibilities, Professor Cabrinha attended the 2014 coordinators conference. To help articulate the new process to Cal Poly students and faculty, the Architecture Department later hosted Stephanie Silkwood, the IDP State Coordinator, who clarified the process and advised students.

Professor Cabrinha attended the 2015 Licensing Advisors Summit (formerly the coordinator's conference) in San Diego, where there was a presentation of the Integrated Path to Licensure, an initiative that is now being piloted by select schools. In addition, the new ARE 5.0 was introduced, but not yet implemented, along with proposals to rename the IDP program.

Finally, Professor Cabrinha also attended the 2016 summit in Chicago, which addressed major changes to the licensure process. These included the full implementation of ARE 5.0 and the introduction of the Architectural Experience Program (AXP). The new AXP and ARE are both organized around the same six areas of architectural practice, aligning work experience with the exam.

This three-year transition was fully in place by the summer of 2016. With the elimination of supplemental hours, the Architecture Department's focus will be on supporting students with qualified work experiences, such as by those provided by the co-ops, professional studios, and work experiences in the two Metro Programs (see **Section 3 – II.2.2 Professional Degrees and Curriculum**).

I.2.2 Physical Resources

According to the NAAB 2014 Conditions, if the program's pedagogy requires physical resources, then the program must demonstrate that it provides adequate physical resources that promote student learning and achievement consistent with that pedagogy.

University Resources. The Architecture Program benefits from the assets of a large university including a research library, learning commons, specialized computing labs, and student support spaces for residence, dining, recreation and activities. In addition, Cal Poly began as an institution geared toward agriculture and technology "to contribute to the industrial welfare of the State of California." As a result, the main campus is large and contains multiple parcel land holdings of ranchlands, farms, a redwood forest, and a donated ocean marine pier as documented in the book, *Cal Poly Land*. For the purposes of the Architectural Program accreditation, almost all activities aside from fourth year off-campus study programs are focused on the main campus and specifically within the main campus core. (See Campus Map: http://maps.calpoly.edu/)

University service facilities include the Kennedy Library with its state-of-the-art computer access system, geographic information systems (GIS) lab, studying and writing (word processing) rooms, the McPhee University Union and Bookstore, the Dining Complex, the Cohan Center for the Performing Arts, and the Recreation Center and Complex. The campus dining complex that included Sage Restaurant (formerly Vista Grande) and a student cafeteria serving the nearby dormitories was demolished in August 2016 with plans for a $30 Million renovation with six micro-eateries, social study/lounge spaces, and recreational rooms.

All lecture classrooms are maintained by the University and scheduled by the University scheduler. Rooms traditionally made available to the Architecture Department include the Business Rotunda (03-213) seating 300, with advanced digital and analogue projection/presentation capabilities. Other rooms located around the campus include 'smart' rooms, with in-place digital projection and network access (faculty provides own computer), and multi-media rooms with in-place computer, network availability, and digital projection.

Laptops, digital projectors and other types of electronic equipment in support of learning and research are available from Instructional Technology (IT) at two locations on campus. In addition, Kennedy Library makes available laptop computers, iPads, and desktop workstations on a check-out basis.

Poly Canyon. University assets managed by the College include the 16-acre Poly Canyon. This is a designated portion of a larger geographic component of the University holdings walk-able from the campus core. It is the site of full-scale, experimental, student-built structures. Poly Canyon is also the location of the Annual 'Design Village' hosted by Cal Poly, which allows students from other schools to bring in and erect full-scale temporary structures over the course of a weekend. Structures in Poly Canyon are subject to review by the Dean's office, constructed with Facilities Planning review, and in conjunction with all prevailing codes.

Resources of the College of Architecture and Environmental Design. The principal physical resources of the CAED and Architecture Department are gathered about Dexter Lawn in Buildings 05 (Architecture and Environmental Design), 21 (Engineering West), 34 (Dexter), 186 (The Construction Innovations Center), and 187 (Simpson Strong-Tie Materials Demonstration Lab). Space allocation is at the direction of the dean.

The Neel Resource Center (NRC) (05-101) Contact: Robert Arens, NRC Director
The NRC was created to complement and supplement Kennedy Library holdings with materials specific to the majors within the College. During the time since the last accreditation, one prime role of the NRC has

been developing the Materials Library Collection and database, along with assisting in the digital archiving of student work and the development of online Web access. The NRC includes several magazine collections, manufacturer's product catalogs, a materials library, several digital stations with internet access, large format scanners (drum and flat bed), and large format printing. A modest collection of books is available for reference. The NRC has several slide layout/light table areas for faculty and student use. The NRC has also become a permanent gallery for selected senior thesis models collected at the request of the Director. Housed in the lower level of building 05, it is convenient to half of the Architecture Department labs. For a detailed description of the NRC's collection see I.2.4 Information Resources.

Support Shop (21-136, 137) Contact: Dave Kempken, Instructional Support Shop Manager
The CAED shop includes a wood shop, a metal shop, specialized masonry and welding areas, and materials storage yard. The use of the shop continues to increase over the time since the last accreditation and the shop through the support of the Architecture Department Fee Committee has acquired micro equipment tools for students to use for small-scale model making. Additional weekend and evening hours for supervisory personnel continue to be supported by the Architecture Department College Based Fees Committee.

Photographic Presentation Laboratory (05-109,114,115,116) Contact: Josef Kasperovich, Photographer/Media Specialist
The Photo Lab has complete darkroom facilities, three large photo/model set-up areas with controlled lighting, and two digital editing stations. The Photo Lab is the CAED repository for analog photographic equipment. The Photo Lab is available on a part time basis.

Berg Gallery (05-105)
A shared Grading/Presentation Gallery (approx. 3000 square feet) is the largest such space within the College resources. It meets the CAED Dean and College Advancement needs for alumni and advising group meetings. The Gallery abuts the large exterior covered stair court of Building 05 and a rear hardscape patio equipped with a barbeque. The inability to schedule the Gallery for all reviews and exhibitions is a continuing problem due to the large number of design lab sections within the college which vie for this unique resource. Starting last spring, instructional area coordinators in 2nd and 3rd year design worked together to schedule all final reviews within a limited time block to ameliorate this problem.

KTGY Gallery and Conference Room (21-105A & 21-105B)
Renovated since the last accreditation visit, this gallery and conference room gallery space adds capacity for studio reviews, exhibitions, student club gatherings, and lectures by 2,899 square feet

Faculty Offices
The CAED controls assignment of faculty offices. For the most part, Architecture Department Tenured and Tenure Track faculty have private offices. All faculty have computers and wireless Internet access. Office sizes range from 90 to 240 square feet with the majority over 100 square feet. Some sharing of offices occurs for full-time and/or part-time lecturers including one large space in Dexter (34-167) serving as a common office suite. The current array of offices places the 45+ faculty in seven different structures on-campus (buildings 05, 21, 34, 186). This is universally seen as hindering communication and collegiality. The Sustainable Environmental Education '(SEE) Group' made up of voluntarily affiliated faculty share a suite of offices with a central conference area and this is seen as the model for future office configurations. This affinity group no longer exists in this location however the suite of offices functions well for collaboration.

Resources of the Architecture Department

The Department currently has an assigned instructional area of approximately 53,279 square feet and, including CAED assigned faculty offices, a total area of approximately 58,207 square feet. The lab area of 52,051 square feet consists of 34 labs. All design studios have 24/7 set-aside space for the exclusive use of each individual student enrolled in that studio. The Department has 33 single-person faculty offices and 7 two-person faculty offices. All studios have at least one networked computer and a 42" LCD monitor. All studios are networked, and all buildings on campus have wireless connectivity. Several special labs integrate digital media into the studio design process. Students have access to the NRC and the Kennedy Library for large format printing and large format scanning (NRC).

Floor plans for all space utilized by the Architecture Department are located in Section 4.11 Facilities.

The Architecture Department labs are equipped with adjustable height chairs, drafting tables and layout tables. Entering freshmen and transfer students are required to purchase their own laptop computer (Macintosh or Windows-based machine) in order to participate in the first year design courses. The Architecture Department works with McPhee Bookstore (Cal Poly's bookstore) and Apple Computer to assemble a package of hardware and software that is competitively priced.

Building 05 (Architecture and Environmental Design)
Building 05 is a four-level concrete frame structure and houses approximately half of the Architecture Department design labs. It is the location for the administrative and advising offices for the Architecture Department, City and Regional Planning Department, and CAED Dean's Office. In addition, there are seven CAED assigned departmental faculty offices, Faculty Conference Room, Architecture Department Archive, Computer Lab, 2nd year MS Architecture Graduate Lab, and is convenient for access to the CAED Dean's office suite, NRC, Photo Lab and Berg Gallery. Characterized by its immense exterior covered multilevel stair court, it is an example of both 'systems building' and 'brutalist' aesthetics. It is not air conditioned with the exception of the Dean's Suite.

F-Stop (05-109)
F-Stop is the student lounge run by the American Institute of Architects Students (AIAS) Chapter. The lower level under stair location is an out-of-the-way place which does not support the mission or visibility of the club. This space was completely renovated by Prof. Cabrinha's students just prior to the last accreditation visit as a design/build studio project funded by the CBF.

Architecture Department Suite (05-212A, 216, 217, 218, 219)
The main Architecture Department Office is adjacent to Dexter Lawn level and has outstanding access to major pedestrian paths. The suite consists of four private offices and open office space and is used by the Department Head, Associate Department Head, Administrative Support Coordinator, Scheduler, Administrative Assistant, Front Desk Assistant, student staff and the faculty who staff the Architectural Advising Center. A small faculty work area is incorporated into the circulation space. The area also includes Departmental storage.

Architecture Faculty Conference Room (05-201A)
A 600 square foot room used for tenured faculty and various committee work, the Faculty Conference Room also contains secure cabinets for the search committees and retention/promotion/tenure submissions. The room lacks adequate soundproofing for confidential conversation and adequate heating. It has a sink, a large counter, and a large conference table. The room has wireless capability, a dual platform Mac mini and a large 42" LCD monitor.

First Year Design and Visual Communication Labs (05-203, 204, 205, 206)
These labs are outfitted with special digital and audio capabilities including projected instructor demonstration station, and were upgraded with new furnishings and technology in 2009. They

accommodate digital and analogue drawing and communications pedagogies and contain additional pin-up and seminar areas.

MS Architecture Graduate Lab (05-224)
This is a studio/seminar workspace with Apple workstations and a digital video projector.

05-314 NAAB Accreditation Archive Room
This room is temporarily dedicated to student work for the 2017 NAAB Visiting Team. It will be relocated to be adjacent to the Photo Lab room post-site visit in order to be used by the department and the curriculum committee for ongoing assessment and display/storage of student work in the program. It is used during tours for prospective students and guests.

05-106 Seminar Room
This room is a department scheduled seminar room. When not in use for classes, this room is available for pin-ups, small exhibits, or student club meetings.

05-308 Computer Lab
This is a 1,500 square foot space for scheduled and open computer lab activities and includes a server and equipment room. The space is currently sponsored and maintained by the CAED and Architecture Department. The computers were upgraded in 2013. The 33 lab stations plus one teaching station are Apple iMac Core i7 Workstations (running on Windows and Mac OSX), and provide all students access to high-end site licensed and networked software. There are 8-1/2x11 and 11x17 scanning and printing capabilities here. Large scale plotting was relocated to the NRC in 2011.

21-130 Seminar Room and "Hot Lab"
This room is scheduled by the Architecture Department, is functioning as a "hot" lab and seminar room and is equipped with a projector and screen.

21-131A + Support Shop, d[Fab]Lab (Digital Fabrication Laboratory)
This room has two laser cutters and a CNC machine and three teaching assistants are hired to assist with this equipment. This room was designed and remodeled by students. [At the time of this report, this room is being repurposed with digital fabrication equipment moving to the SST Building 187.]

Typical Building 05 Labs (CAED 05-107, 108, 201, 207, 301, 302, 303, 304, 305, 400, 401, 402)
The typical layout of the building includes exterior covered corridors separated from labs by sink/counter configurations and exposed ductwork and cable trays. The orientation of the divided spaces generates labs with short exterior exposures and long party walls with adjacent labs. This produces an uncomfortable glare effect within the labs. Lighting is via fluorescent fixtures and student supplied task lighting. Each lab is equipped with network capability and has a shared computer station with a dual platform iMac and a 42" LCD monitor. Windows consist of typical north facing large storefront. Because of the building design, first level studios have access to on-grade patio areas for large-scale work (or break area). Third and fourth level studios have roof terrace access, which has been restricted due to possible roof surface maintenance issues.

Building 21 Labs (Engineering West 21-130, 131, 132, 222, 223, 224, 225, 226, 227, 246, 247, 248, 249, 250)
Building 21 is a three-level concrete frame structure with four-sided enclosure of an open courtyard. It houses approximately half of the Architecture Department design labs. It is the locale for nine CAED assigned architecture department faculty offices, and is convenient for access to the Architectural Engineering, City and Regional Planning, and Construction Management departmental offices and

specialized support labs, and CAED Support Shop. Stepping down a hillside from the Dexter Lawn, the upper level north bar of the rectangular footprint supports the entire second year studio array in one collegial manner overlooking Dexter Lawn. A segregated series of labs is located at the south bar separated from other labs by an extended hallway of university classrooms. At the mid-level an exterior stair opens to the massive courtyard, largely overgrown with plantings and with a poorly graded brick patio. A hard surface roadway connects the courtyard with the Support Shop and public road network. One Architecture lab pairing fronts the courtyard. The typical lab has the long side open to the north light and is larger than the typical lab in building 05.

Building 34 (Dexter 34-134,152)
This is the renovated former University Library. There are two Architecture labs in Dexter. The 1st year MS Architecture studio (34-134) is located here as well as one upper division studio (34-152) and a shared presentation/seminar/pin-up space (34-159A). Seventeen CAED assigned faculty offices, including the 10-office suite (formerly, the Sustainable Environments Education or SEE Group) is located in this building, and there is convenient access to Landscape Architecture labs, and Art and Design Departmental Offices, studios and gallery.

Building 186 (Construction Innovations Center 186-B304, B302 (until 2016-17)) Houses main offices for the Construction Management Department as well as CM labs, classrooms, computer lab, plan room, teaching labs, and studios. There have been two Architecture studios in this building but one has been turned over to the CM Department due to increases in enrollment in 2015-16.

Building 187 (Simpson Strong-Tie Materials Demonstration Lab)
The 7,800 square floor open floor plan utility building provides floor space and vertical height for construction projects. In addition, the SST Mezzanine has been converted effective this summer to the new fabrication space that includes both d-fab and sewing machines, etc. An equipment list and space layout is included in the **Section 4 Supplemental Materials**.

Areas that are improperly configured, inadequately sized or constitute health hazards:
The computer and teaching laboratories, and non-capacity instructional areas, representing more than two-thirds of the total CAED floor area. There is mostly a problem with lack of adequate heating capability (lack of cooling in the computer labs during hot days is also a periodic problem) in these spaces that interferes with the 24-hour use of most laboratory-based courses and self-instruction areas during the winter months. Most heating facilities are inefficient and costly to operate.

Resources of Allied CAED Departments. The Architecture program also benefits from the assets of the College of Architecture and Environmental Design's five allied professional disciplines. This is especially true for two departments: Architectural Engineering and Construction Management.

Architectural Engineering (ARCE) **Building 21 Support Spaces and Concrete Yard.** ARCE supplies structures course work and architecture students use their specialized spaces and labs. Included are Large Scale Structures (high-bay) Testing Laboratory; Soils, Seismic and Stress/Models. Testing Laboratories; and, Concrete Laboratory and Yard. Contact: Al Estes, Department Head.

Construction Management (CM) **Building 186** (Construction Innovations Center) Houses main offices for the Construction Management Department as well as CM labs, classrooms, computer lab, plan room, teaching labs, and studios. **Building 187** (Simpson Strong Tie Materials Demonstration Lab)
The 7,800 square foot space that opened on October 22, 2010 was designed to enhance the College's multidisciplinary, hands-on curriculum. The design team (architect, engineer, and contractor) was made up of three CAED alumni. Intended uses include both classroom related instruction and guest expert demonstrations. The space will allow for the display and study of large-scale material assemblies. The

main hall also accommodates departmental and interdepartmental student competitions that entail large-scale physical modeling, full scale component prototyping, and related building component demonstrations. Contact: Al Hauck, Department Head.

Hardware and Software to Support the Architecture Program
Specific to Architecture students, the Architecture Computer Lab (05-308), studios, and support spaces are equipped as follows:

Labs and Resources. The main computer lab for architecture students is in Building 05-Room 308. In addition, computers are located in the Neel Resource Center (NRC), studios, and faculty offices. Specifications are noted here.

Architecture Department Computer Lab (05-308)
34 computers (33 lab computers + 1 teaching station)
Computer Specifications:
- 4GHz Intel Core i7
- 8gb RAM
- 4gb AMD Radeon 4gb video card
- 1 TB hard drive2 HP Color LaserJet 5550 11”x17” Printers

1 Epson GT-2000 11”x 17” Scanner
1 Canon photocopier/scanner/printer 8-1/2”x11” and 11”x17”

dFab in Simpson Strong Tie Mezzanine (Building 187)
16 computers
Computer Specifications:
- 2.9 GHz Intel Core i5
- 8gb RAM
- 512mb AMD Radeon or NVidia video card
- 500gb hard drive

Additional Software: RhinoCAM 2015

NRC (Neel Resource Center)
8 computers
Computer Specifications:
- 2.8 GHz Intel Core i5
- 4gb RAM
- 1gb AMD Radeon 4 video card
- 500gb hard drive

Studios
16 computers - Building 05
11 computers - Building 21
1 computer - CM Building (186)
Computer Specifications:
- 2.93 GHz Intel Core 2 Duo
- 4gb RAM
- 512mb AMD Radeon or NVidia video card
- 500gb hard drive

Faculty Computers
Minimum Standard Specifications are:
iMac
2.93 GHz Intel Core i7 (8gb RAM, 1gb AMD Radeon or NVidia video card) or
3.2 GHz Intel Core i5 (8gb RAM, 1gb AMD Radeon or NVidia video card)

MacBook Pro
2.3 GHz Intel Core i7 (8gb RAM, 1.5gb Intel Iris Pro video)

Figure E: CAED Image Software

Macintosh OS X 10.6 (64 bit) Image	Windows 7 (32 bit) Image
Adobe Creative Cloud 2015 Acrobat DC Illustrator CC 2015 InDesign CC 2015 Lightroom Photoshop CC 2015 AutoCAD 2016 Blender 2.77 Camtasia 2 Climate Consultant 6.0 Firefox / Chrome / Safari Google Earth Microsoft Office 2016 Rhinoceros 5.2.1 SketchUp Pro 2016 Skype Sococo Zotero	Adobe Creative Cloud 2015 Reader DC Acrobat DC Illustrator CC 2015 InDesign CC 2015 Photoshop CC 2015 ArcGIS 10.4.1 AutoCAD 2017 Bluebeam Revu 2016 Camtasia Studio 8 Climate Consultant 5.5 Dynamo 0.8.1 Firefox / Chrome / Safari / Edge Google Earth Pro IBM SPSS Statistics 2.2 Microsoft Office 2016 Microsoft Project 2016 Microsoft Visio Pro 2016 Revit 2016 Rhinoceros 5 (with VRay) SketchUp 2016 Skype 3D Builder

Off-Campus Program Venues. The Architecture Program encourages student participation in off-campus experiences. All occur during the 4th year. Students can select from quarter-long programs to a full year away. There are four types of off campus programs through Cal Poly, and venues vary accordingly.

- **Cal Poly Global Programs (Rome, Italy; Switzerland, Mexico, Japan)**
  These programs are Cal Poly faculty-led. All four of these programs rent space (housing, classrooms, studio) that is paid from the student fees.

- **CSU IP (Florence, Italy; Copenhagen, Denmark; Biberach, Germany)**
  The CSU administers student participation at these universities and centers. In Florence, the CSU rents buildings. At DIS (Danish Institute for Study Abroad), DIS owns their own facilities and offers a range of housing options from homestay to dormitories to shared apartments. In Biberach, all facilities are owned by the host campus.

- **Exchange Programs (Canberra, Australia; Paris, France)**
  In Australia, study and housing occurs on campus. In Paris, students find their own housing in the city but courses take place on the ENSA (Ecole Nationale Superiere d'Architecture) campus.

- **Affiliated Partner CIEE (Berlin, Germany; Prague, Czech Republic; Barcelona, Spain)**
  In Berlin, CIEE owns a multistory building that was a former factory in the Kreuzberg District. The building has an interior courtyard, classrooms, a shop, dormitory, kitchens and café all on site. In Prague, students take classes at the Institute for Architecture and stay in private apartments by others. In Barcelona, students study at the IAAC (Institute for Advanced Architecture Catalonia) and stay with families or have the option of apartments.

Additional Resources Added Since the Last Visit

CAED Legacy Garden (under design; part of advancement campaign). Enhancement of the outdoor patio space, which extends from the NRC and Berg Gallery has been 'adopted' by the Architecture Alumni class of 1980 as a special fundraising project. The current plan is for a Landscape Architecture student designed and built project to get underway within the next year and a half. This space will be used for student and alumni gatherings and appropriate exhibitions.

I.2.3 Financial Resources

According to the NAAB 2014 Conditions, the program must demonstrate that it has appropriate financial resources to support student learning and achievement.

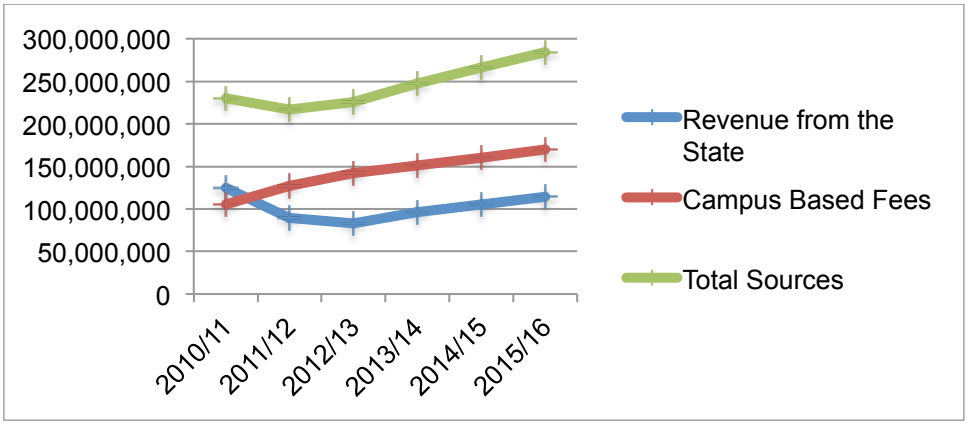
Institutional Process for Allocating Financial Resources to the Program. The institutional process for allocating financial resources to the program involves consultative review and strategic decision-making at various levels relative to the use of state and non-state funding necessary to meet programmatic goals and infrastructure needs. In this section, the financial sources are outlined and their uses explained in relationship to serving students, faculty, and staff for the BARCH program at Cal Poly.

State Support. Each of the 23 campuses in the California State University system receives budget support from the CSU Operating Fund that is derived from state tax revenue and student fees (tuition, health fees, etc.). This allocation comes to the campuses through a legislative approval process that involves the Governor's Office, the CSU Board of Trustees, the CSU Chancellor, campus presidents and constituencies, the Department of Finance, and the Legislature. The CSU also receives a portion of its revenue from the sale of state lottery tickets referred to as the Lottery Education Fund.

In 2015-16, the state allocation supported **40%** of Cal Poly's Operating Budget compared to a little over 10 years ago when the level of state support was at **80%**.

While state support for public higher education in California has grown over the past four years, it is not expected to return to previous funding levels in absolute dollars anytime soon. Recognizing this trend, Cal Poly President Warren Baker appealed to the CSU Board of Trustees to allow the campus to institute its own campus-based fee known as *The Cal Poly Plan* (1996) (see http://content-calpoly-edu.s3.amazonaws.com/wasc/1/documents/cp_plan_0709.pdf) in order to provide the necessary revenue for maintaining a high quality, lab-intensive polytechnic education. Today, the Cal Poly Plan (CPP) in combination with two other fees – the College Based Fee (2002) and the Student Success Fee (2012) -- have allowed Cal Poly to continue meeting the educational and operational needs of the campus. College Based Fees (CBF), in particular, have been a critical component to stabilizing college base budgets as a direct source of funding on a per student basis with the specific objectives of improving course access and progress to degree.

Figure F: State Budget and College Based Fees



The chart above shows how Cal Poly's budget has changed over the six-year review period with campus-based fees now exceeding support from the state to meet operational needs. Note that student fees collected by the state in the form of tuition have remained constant during this time period.

All state funds received by the campus and fee revenue collected locally are managed through the Office of Administration and Finance at Cal Poly and assigned to campus units including colleges. Funds from philanthropic or other public/private sources are administered through the Cal Poly Foundation or the Cal Poly Corporation. Both are non-profit (501c3) entities.

The College of Architecture and Environmental Design (CAED) distributes its university budget allocation to support each of the five departments in the college and its own operations as well as interdepartmental activity managed centrally by the college (such as instructional shops, computer labs, and equipment).

Sources of Revenue. There are four types of revenue sources the Architecture Department controls or has influence over. Two originate with the state and two are non-State. They are described below.

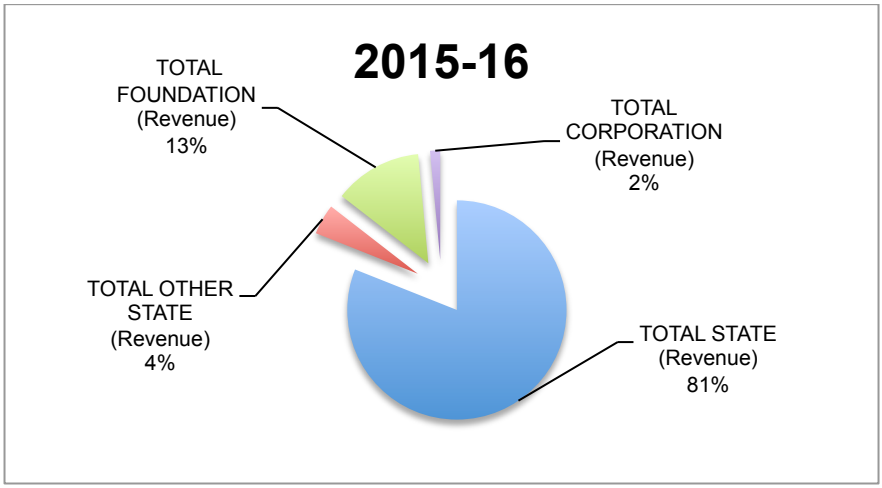
State Funds: Includes portion of the net CSU Operating Fund and Lottery Education Fund allocated to the department and campus-based fees (Cal Poly Plan, College Based Fees, and Student Success Fee).

Other State Funds: Include special project accounts such as Instructionally Related Activities (IRAs) for co-curricular support, and what are known as categorical fees to support additional student services (e.g., plotting and printing, digital fabrication).

Foundation Funds: Includes campus programs (gifts, donations, and other forms of philanthropy) received through the non-profit foundation (501c3). Use of funds may be restricted (donor agreements) or for discretionary purposes. The *Architecture Fund for Excellence* is an example of a discretionary fund.

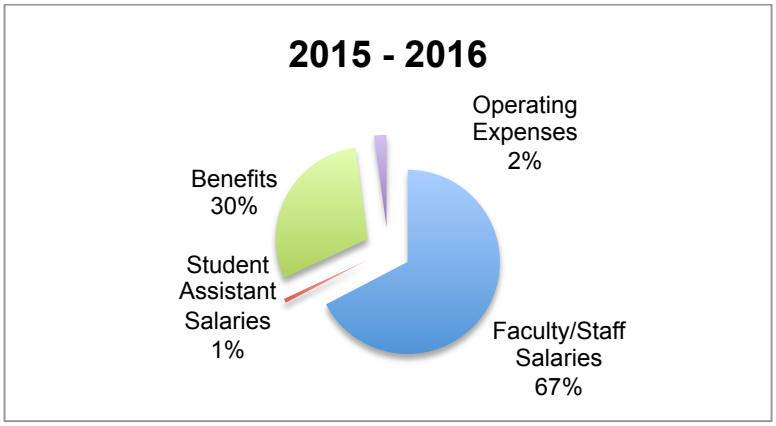
Corporation Funds: Includes sponsored programs such as research grants and fee-for-service contract activity, conferences and events, and book sales.

Figure G: Distribution of Funding Sources



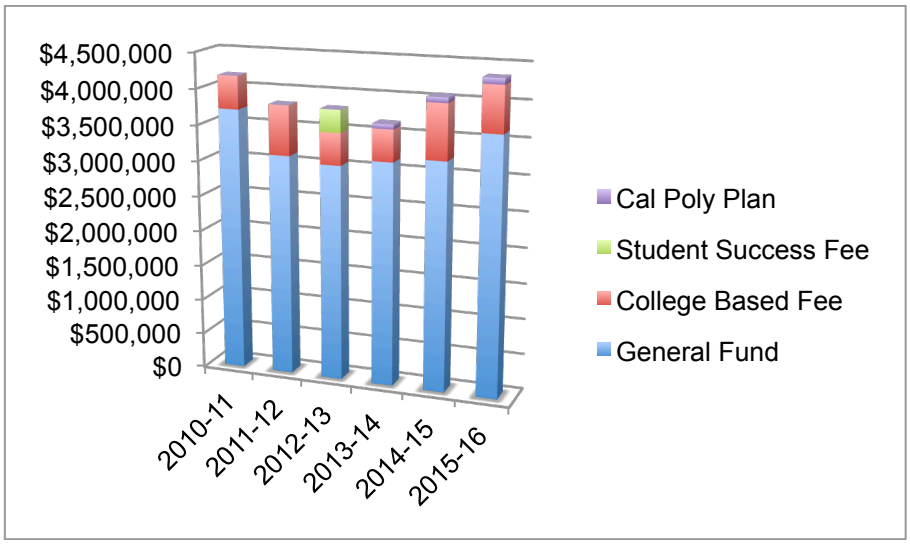
State Revenue and Expenditures. The majority of funds from the state support the core mission of the program expended as faculty, staff, and student salaries and benefits. Operating expenses (telephone, copiers, office supplies, hosting, etc.) are the next largest expense category.

Figure H: State Expenditures



The CAED has provided for replacement equipment and computer technology from state funds during the past several years as part of a strategic and shared resource utilization plan. Students now have access, for example, to four computer technicians in the college whereas in the past they had one principal point of contact. Similarly, in the CAED Support Shop, one shop technician paid for by the department has been replaced with a college level position. Coordination and supervision managed centrally will lead to more integrated service in the future.

Figure I: State Revenue and Campus Based Fees



Campus Based Fees have largely supported instruction through allocation to faculty salaries for additional course sections and computer technician or instructional shop staff salaries. For the first time since 2009, discretionary budget is available through College Based Fees. A student advisory committee will be formed and a faculty ombudsman chosen to explore funding proposals.

Figure J: Summary of State-Related Revenue and Expenses

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
General Fund	$3,708,191	$3,115,114	$3,036,677	$3,137,871	$3,207,740	$3,616,226
College Based Fee	$461,690	$696,951	$444,500	$443,216	$768,659	$640,723
Student Success Fee	$0	$0	$314,939	$0	$0	$0
Cal Poly Plan	$0	$0	$0	$65,187	$72,393	$83,454
TOTAL STATE (Revenue)	**$4,169,881**	**$3,812,065**	**$3,796,116**	**$3,646,273**	**$4,048,791**	**$4,340,403**
Summary of Expenditures	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Faculty/Staff Salaries	$2,935,121	$2,671,703	$2,638,052	$2,527,237	$2,755,609	$2,919,137
Student Assistant Salaries	$34,463	$2,004	$12,305	$26,209	$26,162	$30,607
Benefits	$1,105,421	$1,103,254	$1,103,721	$1,017,730	$1,141,001	$1,290,525
Operating Expenses	$94,876	$35,103	$42,038	$75,098	$126,019	$100,134
TOTAL (Expenses)	**$4,169,881**	**$3,812,065**	**$3,796,115**	**$3,646,274**	**$4,048,791**	**$4,340,403**
Revenue - Expenses	$0	$1	$0	$0	$0	$0

Productivity. One measure of productivity is the number of student credit hours (SCUs) generated as compared to the state dollars spent. Another is dollars spent per student headcount. The Architecture Program has increased the number of SCUs delivered and decreased in its unofficial cost per SCU between 2010-2016 as illustrated in the table below.

Figure K: Cost Comparison per Student Credit Units

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
FTES*	628	557	602	627	673	704
SCUs	19,323	16,582	17,482	17,637	20,226	21315
Unofficial Cost per SCU	$215.91	$229.89	$218.87	$206.84	$199.45	$203.33
Unofficial Cost per student (FTES*)	$6,643.50	$6,843.81	$6,356.04	$5,818.19	$5,994.14	$6,156.21

*Current Cal Poly registration.

Other State Sources of Revenue and Related Expenditures. The CSU Operating Fund in combination with campus based fees, plus intermittent lottery or one time allocations, provide a stable base for instructional support. To further student learning outside the classroom, supplemental funds aid in faculty scholarship and creative activities, and other program goals, as part of our strategic mission. Each of these categorical sources is explained and illustrated below.

There are three types of added funds available from the State to support student and faculty for self-support course work, extra-curricular activities, and basic services and consumables.

Self-support coursework generally refers to student and faculty participation in programs run through the Office of International and Graduate and Extended Education. It also includes income to the program for non-matriculated students enrolling in department classes through Open University (including some international exchange students).

Instructionally Related Activity Funds or IRA's are a competitive resource managed through Academic Programs. Students and faculty are invited to apply each year for these funds to support non-classroom related activities that promote student learning including special events and design competitions. Applications are annual, however, funds can be received on a recurring basis. The Architecture Department has received funding for events such as the 5th Year Senior Thesis Show at Chumash Auditorium, the 2015 Solar Decathlon, and the Bank of America Low Income Housing Challenge.

Category IV Fee Funds are granted through a proposal process to the Campus Fee Advisory Committee who advises the President on approval. There are currently two such standing fees approved for students in the Architecture Department: plotter/digital printing fees and digital fabrication. Originally, equipment for these operations were purchased through a self-funding mechanism. Currently fees collected only cover the cost of services and consumables to the student in the form of paper, ink, models, etc. that are the resulting finished product of the process. Having a department operation of this type has saved students time and money compared to times when the only options were off-campus service providers.

Figure L: Summary of Fee Revenue and Expenditures

OTHER STATE FUNDS

Summary of Revenue	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Instruction-related	$28,280	$11,222	$9,689	$16,527	$32,388	$29,560
Categorical Fee Funds	$5,114	$9,485	$77,546	$140,840	$178,717	$229,665
OTHER STATE (Revenue)	**$33,394**	**$20,707**	**$87,236**	**$157,367**	**$211,105**	**$259,225**
Summary of Expenditures	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Faculty/Staff Salaries	$9,504	$24,959	$4,754	$82,086	$71,516	$59,002
Student Assistant Salaries	$0	$0	$5,064	$24,418	$21,174	$51,799
Benefits	$138	$362	$69	$1,210	$1,046	$13,233
Operating Expenses	$1,053	$219	$10,665	$27,681	$35,252	$43,705
ARCH Expenses	$10,695	$25,539	$20,552	$135,395	$128,988	$167,739
Non-ARCH expenses	$26,058	$10,533	$4,509	$9,620	$14,777	$37,868
TOTAL (Expenses)	**$36,753**	**$36,072**	**$25,061**	**$145,015**	**$143,765**	**$205,607**

Other Funds (including non-State)

Cal Poly Foundation. Development of external funding sources including corporate, foundation, and individual giving for the Architecture Department is coordinated through the Office of University Advancement. The *Architecture Department Fund for Excellence* is the primary account established to receive unrestricted gifts and donations that can be used for discretionary purposes by the department. These uses include faculty professional development, student leadership support, student travel, events, hosting, accreditation, project support, furnishings, and special equipment.

Figure M: Summary of Foundation Funds

Summary of Revenue	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Restricted	$238,706	$336,065	$279,457	$289,756	$365,607	$634,345
Discretionary (unrestricted)	$128,543	$188,767	$135,267	$106,571	$120,146	$118,601
FOUNDATION (Revenue)	$367,249	$524,832	$414,724	$396,326	$485,753	$752,946
Summary of Expenditures	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Faculty/Staff Salaries	$21,813	$21,201	$1,903	$2,414	$1,781	$8,943
Student Salaries	$807	$1,862	$0	$0	$137	$3,040
Benefits	$2,218	$5,885	$69	$134	$73	$47
Operating Expenses	$152,257	$189,508	$159,312	$68,378	$133,194	$116,228
TOTAL (Expenses)	**$177,094**	**$218,456**	**$161,284**	**$70,926**	**$135,184**	**$128,258**

Scholarship, fellowship, and grant funds for students and faculty. The department benefits from college activities related to fundraising and advancement as well as its own internal efforts.

Student Travel and Leadership Awards

Student-in-Need Travel Fund: A generous $30,000 gift from an anonymous donor in Winter 2015 provided direct benefit to 43 students to participate in domestic and international studio field trips. Distributions ranged from $300 to $1700. The gift was renewed in 2016-17 at $35,000.

Student Professional Club Support: The Architecture Department provided assistance to the AIAS Chapter for attendance at the annual Grassroots Conference in Washington, D.C. for three students as well as the national Forum in San Francisco in December 2015.

In Spring 2016, a student group organized to form a campus chapter of NOMA. Their start-up memberships were paid as well as conference registration for the national event in Los Angeles, CA taking place this October.

Student Leadership Fellowships: The Architecture Department provides support funding for special student circumstances specifically to support student leaders.

This year, a 5th year EAP student was provided with summer tuition in order to complete his final degree requirements after having to drop out of school temporarily to undergo chemotherapy treatment for cancer. A 4th year minority student was provided gap funding after being denied an educational loan. This funding allowed him to complete his travel experience and his studies abroad. The club president for SOL – Students Organization of Latinos CAED, a campus chapter for Latino and Latina design students, was provided supplemental funding to participate in a Cal Poly Global Programs study abroad experience in San Miguel de Allende, Mexico.

Student Scholarships. Although the level of giving for student scholarship has remained fairly constant, additional resources have come to the department in the form of giving related to travel fellowships for students who would not otherwise be able to participate in these trips or departmental support to provide student leaders with opportunities or gap funding.

Figure N: Scholarships and Awards 2010 – 2016

UNDERGRADUATE SCHOLARSHIPS	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Alfred B. Berghell & Joy G. Berghell	$1,500	$2,400	$1,800	$1,800	$1,200	$1,200
bfgc Architects Planners	$3,000	$3,000	$2,700	$2,700	$3,000	$2,700
Daniel L. Panetta Memorial	$600	$0	$0	$0	$0	$0
Don & Caryl Koberg Architecture History	$900	$750	$900	$900	$900	$900
Don Tanklage	$14,700	$10,000	$5,000	$10,000	$10,000	$10,000
Doug and Joan Menzies Scholarship	-	-	-	-	-	$2,000
Douglas W. Butzbach Memorial	$2,100	$2,100	$1,500	$1,500	$1,800	$1,500
Emily N. Alstot Memorial	$600	$600	$600	$2,100	$1,800	$1,200
Frederick Peter Young Memorial	$600	$1,000	$1,000	$950	$950	$950
Herbert E. Collins Scholarship	$2,400	$0	$1,200	$0	$0	$0
Jared and Davie Hurley Memorial	-	-	-	$1,000	$1,000	$950
MBH Architects Scholarship	$0	$600	$600	$500	$500	$500
Mackey Deasy Memorial	$570	$0	$0	$0	$0	$0
Michael Shannon Scholarship	$750	$500	$500	$0	$0	$900
Morris Poindexter Memorial	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
R.L. Graves Jr.	$600	$0	$0	$0	$0	$0
Richard Lee Fisher Memorial	$10,500	$12,000	$9,000	$12,000	$12,000	$9,000
RRM (rotates through CAED Departments)	$0	$0	$0	$2,700	$0	$0
Stephen O. Anderson Memorial	$0	$0	$600	$600	$0	$0
Henri de Hahn Second/Third Year Award	$1000	$1000	$0	$0	$0	$1000
FACULTY COMPETITION/AWARD						
Larry H. Loh Design Excellence Award	$500	$500	$0	$600	$600	$600
Oltman's Scholarship for Design Excellence	$1,000	$1,200	$1,200	$1,200	$1,200	$900
Peter Hoyt Berg Memorial Scholarship	$900	$0	$600	$600	$600	$600
Robert Hifumi Odo Memorial Scholarship	$3,000	$3,000	$3,000	$3,900	$3,900	$3,600
STUDENT CLUB AWARD						
Thomas H. Maple Memorial Award	$497	$469	$477	$0	$573	$522
Cal Poly Scholar - Architecture	$0	$0	$0	$0	$5,000	$5000
TOTALS	**$46,717**	**$40,119**	**$31,677**	**$49,050**	**$46,023**	**$40,022**

Faculty Fellowships and Awards. Several generous donations have provided additional support for faculty scholarship. These include a William Randolph Hearst Foundation grant and AVRP Studios, San Diego, CA and ZGF, LLC, Los Angeles.

Figure O: Faculty Awards and Fellowships

Year	Faculty Award	Principal Investigator	Sponsor	Amount
2015-16	Hearst Scholarship in Education Award	Mark Cabrinha	Wm. Randolph Hearst Foundation	$30,000
2015-16	Hearst Teacher-Scholar Award	Meredith Sattler	Wm. Randolph Hearst Foundation	$5,000
2015-16	Hearst Teacher-Scholar Award	Sandy Stannard	Wm. Randolph Hearst Foundation	$5,000
2015-16	AVRP Studios Housing Innovation Award	Dale Clifford	AVRP Studios, San Diego	$10,000
2015-16	AVRP Studios Housing Innovation Award	Jeff Ponitz	AVRP Studios, San Diego	$10,000
2015-16	ZGF Building Performance Fund	Sandy Stannard	ZGF/LA	$5,000

Corporation Funds. The Cal Poly Corporation is a private non-profit affiliated with Cal Poly that provides servicing to contracts and grants received by faculty, staff, and students. The Office of Sponsored Programs services these agreements along with the Corporation which charges a fiscal fee for accounting, payroll processing, etc. The following table summarizes revenue and expenses for Corporation Funds that the Architecture Department controls or influences.

Figure P: Summary of Corporation Funds

Summary of Revenue	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Restricted	$210,081	$200,968	$205,036	$130,179	$100,495	$86,256
Discretionary (unrestricted)	$17,987	$815	$826	$932	$0	$0
CORPORATION (Revenue)	$228,068	$201,783	$205,862	$131,111	$100,495	$86,256
Summary of Expenditures	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Faculty/Staff Salaries	$75,203	$79,112	$87,735	$32,930	$10,471	$7,866
Student Salaries	$29,103	$352	$0	$3,421	$1,371	$7,405
Benefits	$7,250	$83	$44	$347	$12,400	$224
Operating Expenses	$9,474	$1,582	$783	$0	$663	$0
TOTAL (Expenses)	**$121,030**	**$81,128**	**$88,561**	**$36,698**	**$24,905**	**$15,495**

Research Grants. The Architecture Department Faculty received a total of $1,605,008 in grants and contracts between 2010-2016.

Figure Q: Funded Faculty Research

Year	Proposal Title	Principal Investigator	Funding Agency	Amount
2015-16	Collaborative Research: Smart Material, Adaptive, and Reconfigurable Tiles "SMART Tiles" for Environmentally Responsive Building Surfaces	Dale Clifford	National Science Foundation	$144,582
2014-15	Solar Cal Poly	Sandy Stannard	U.S. Dept of Energy	$43,189
2013-14	Solar Cal Poly	Sandy Stannard	U.S. Dept of Energy	$6,811
	Radiant floor cooling in diurnal shift climate environment	Ansgar Killing	CSU Office of the Chancellor	$23,800
	Campus buildings that teach sustainability: Using LEED-rated buildings and landscapes as learning laboratories at Cal Poly, San Luis Obispo	Margot McDonald	CSU Office of the Chancellor	$11,600
2012-13	Project for a desalinization facility in Marina, California	James Doerfler	California American Water Company	$50,000
2011-12	Marina area utility feasibility assessment	James Doerfler	Metropolitan Water District of Southern California	$50,000
	Design-Build Project 2011	James Doerfler	Gensler	$4,500
	Education software for workforce development	Margot McDonald	CA Energy Commission via Institute for Sustainable Performance of Buildings (SuPerB)	$50,000
	ICODES development and software maintenance support – stage 23	Jens Pohl	U.S. Dept of Defense via CDM Technologies, Inc.	$239,953
2010-11	ICODES development and software maintenance support – stage 24	Hisham Assal	U.S. Dept of Defense via Tapestry Solutions, Inc. - CDM	$450,596
	Knowledge Management Laboratory (KML) Center Consortium	Jens Pohl	Knowledge Management Laboratory (KML) Center Consortium	$290,000
	ICODES Development and Software Maintenance Support – Stage 22	Jens Pohl	U.S. Dept of Defense via CDM Technologies, Inc.	$239,977

Summary of Pending and Future Changes

Reductions/Increases in Enrollment. The university has engaged in an academic master planning process over the past two years resulting in estimated targets for program enrollments. The CAED has projected growth enrollment from its current size of **1850** students in five departments to **2100** students with the addition of two new undergraduate degrees (Sustainable Environments and Environmental Product Design). In this proposal, Architecture would target an enrollment of **700** to **1000** students. The total target for the college is **2000** students in 2022 and **2600** students in 2035. To meet this growth trajectory, additional off campus program opportunities will be developed in order to move from the current **5.5%** participation rate to **10%**. Combining the increase in off-campus programs (for Architecture and other CAED Departments) and a new degree program in Sustainable Environments, which does not require studio space, the CAED and Architecture will have physical capacity to grow.

Trends in applications to the BARCH program show some concerning signs. Applications have dropped dramatically for transfer students from 2010-11 to 2015-16. Significant effort is going into streamlining articulation agreements, however, new CSU system wide mandates are limiting transfers to those who will complete the BARCH in three years. Applications for First-Time Freshman (FTF) increased slightly last year but are still well below the 2010-11 level.

Reductions/Increases in Funding. 2016-17 marks the fourth and final year for the Governor's compact with the CSU for holding tuition constant while providing tax revenue to the system from Proposition 30. Salary increases approved for 30 June 2016, 1 July 2016, and 1 July 2017 are unfunded. It is therefore anticipated that tuition will rise beginning again in 2017-18. How this will be handled remains to be seen. Options under consideration include small annual incremental tuition increases on the order of 2% (tied to inflation) as preferred to the tuition spikes as high as 22% which were seen in the CSU in 2011-12. Another factor related to increased funding is non-resident tuition as a source of revenue. While this added funding does not benefit the Architecture Department directly, it does provide revenue to the campus. There has been a significant increase in the number of non-resident students enrolled in the BARCH.

Changes in Funding Models. There are no changes in the funding of instruction, overhead, or facilities since the last visit. A new faculty contract was approved in April that provided increases to faculty compensation on June 30, 2016, July 1, 2016, and July 1, 2017. These increases net a 10.1% total salary increase for all tenure line, probationary, and lecturer faculty. While not a direct form of compensation but perhaps even more valuable is the provision of release time to probationary faculty to be used during the first two years of their time at Cal Poly. These faculty are assigned 2/3 of the normal teaching load (24/36 direct instructional wtu) and have the ability to work with their dean and department head to best plan their schedules for research, new course development, etc. A significant change to future funding of campus facilities is also on the horizon. The state will no longer fund new campus building construction. This is going to be an especially great challenge for classroom and laboratory facilities that are non-revenue generating.

Planned or In-Progress Institutional Development Campaigns. The CAED is at the core of several advancement initiatives to aid the Architecture Department. These include the following:

- The shOPs Zone renewal (renovation of Building 21)
- The Legacy Garden (rear patio renovation of Building 05)
- The Neel Resource Center (visual & material resource center renovation in Building 05)
- The Simpson Strong-Tie (SST) Mezzanine (as a d-fab space)
- Learning Commons in the Building 05 Staircourt
- Architecture Student Scholarships (including materials + supplies, travel, et al)
- Cal Poly Scholars (full tuition coverage for First Generation College Students)

I.2.4 Information Resources

According to the NAAB 2014 Conditions, the program must demonstrate that all students, faculty, and staff have convenient, equitable access to literature, information, visual, and digital resources that support professional education in the field of architecture.

Further, the program must demonstrate that all students, faculty, and staff have access architecture librarians and visual resources professionals who provide information services that teach and develop the research, evaluative, and critical thinking skills necessary for professional practice and lifelong learning.

Institutional Context

Cal Poly Architecture students are fortunate to be served by two information resource bodies: The Neel Resource Center (NRC) located in the ground floor of the Architecture Building and the Robert E. Kennedy Library located in a nearby building to the northeast. The two resources are funded and managed separately, but since it is the practice of the CSU system to support only one main library per campus, the development of the NRC in partnership with Kennedy's collections has allowed a flexibility and customization of service unique to the needs of the CAED and there is a healthy overlap between these resources. The NRC focuses on visual resources, digital media, building materials and contemporary print materials, whereas Kennedy Library focuses on a more in-depth collection of general, historical and curriculum-directed architecture books, serial subscriptions, and architecture databases. Kennedy Library also has greater capacity to support faculty and graduate comprehensive and long-term study. In the past six years, as the administration of the two facilities has evolved, there has been an increasing degree of collaboration between the director of the NRC and the Kennedy librarian for the CAED. For the past 5 years, the CAED librarian has devoted much effort to group training of students in information competency skills. These efforts have achieved a more independent information-seeking student population and have reduced demands on the NRC director to assist students with basic architecture information inquiries.

Services. Both Kennedy Library and the NRC provide students with information-seeking skills in the format of group tutorials or one-on-one instruction. The NRC staff is always available immediately for individual assistance 40 hours a week. The CAED librarian at Kennedy Library must provide more information-skill training to multiple classes or studios in the Architecture Department, thus is not always available at the Kennedy Information reference desk. The CAED librarian, trained in Information Library Sciences and its research methodology, provides more advanced support with long-term thesis research.

Neel Resource Center. The NRC Director and student assistants instruct new incoming students to the Neel Resource Center's collections and services. The staff assists students and faculty with navigating library databases, refining search terms, and suggesting new search strategies. Individual assistance offered by the NRC staff aims to provide students with basic skilled research techniques and formal analysis for the practice of architecture and the environmental design-related fields. In addition, the director gives group orientations for first and second year studios to NRC's resources and delivers large lecture hall presentations for Practice Studios on building materials research, precedents, case studies, and product CSI format specifications

For the last 10 years, the NRC has also offered a large format printing and a large format scanning service to the CAED student community. For a minimal fee, students are able to print large format posters for their studio presentations and critiques. Scanning their drawing (up to 42 inches wide) on the large wide format scanner is free. More than 90% of the Architecture Department student population is currently using the scanning and printing service. The NRC director estimates that every quarter 400 students are using the NRC printing and scanning service for the midterm and final presentations.

Robert E. Kennedy Library. The Robert E. Kennedy Library at Cal Poly supports the students and faculty of the Architecture Department in a wide variety of important ways: access to facilities, technology, services, collections and, for students, meaningful employment opportunities. In 2014, just as the Architecture Department was celebrating being named the top undergraduate program in the nation (as presented by Architectural Record in association with DesignIntelligence), the Kennedy Library became the first academic library in California to win the prestigious ACRL (Association of College and Research Libraries) Excellence in Academic Libraries Award. The library, while still honoring print traditions and resources, is fully committed to enhancing student success in and beyond college by also focusing on digital resources, the digital/analog interface, current and emerging technologies, and the instructional enhancement of digital literacies. The Kennedy Library and its staff devoted to the CAED, provide services in four key areas: academic services, computing and technology, instructional and digital literacies, geospatial studies, as well as other areas.

Academic Services. One key channel is the designated librarian for the CAED, who maintains regular contact with departmental administrators and faculty, fields any questions regarding the library or needed research materials, and also works with faculty to create meaningful group instruction for classes. The current CAED Librarian, Jesse Vestermark, arrived at Cal Poly in 2010 holding a Master's degree in Library Studies and a second Master's in Painting and Drawing, and was awarded tenure and promotion to Assistant Librarian in 2016.

For the past five years, the CAED Librarian has promoted library resources and services to new students through visiting research instruction sessions in EDES 101 (prior to its re-envisioning as EDES 123) and most recently through ARCH 101 in a session that focuses on applying critical thinking to online resources. Building on this base, all first-year students encounter the CAED Librarian again through the ARCH 133 house precedent project, in which they are assigned to navigate the fundamentals of digital and analog research. Often this requires them to uproot plans, sections, elevations, etc. that have never surfaced online—a skill that will serve them during their time at Cal Poly. Beyond systematized first-year learning, the CAED Librarian is available to teach the refinement of research skills to any instructor who requests it, though this is most often sought by ARCH 420 professors and the occasional Senior Thesis course. For ARCH graduate students, the CAED Librarian provides a comprehensive overview of resources and services yearly in the fall.

The opportunity to schedule one-on-one consultation is available to students and faculty all week long during business hours. The CAED Librarian records all meaningful reference interactions. For example, in 2014-15, he recorded 80 questions answered to Architecture students or faculty, averaging 26 minutes per interaction. These interactions were most often performed face-to-face or via email. To facilitate a sense of connection and familiarity, he stations himself in the Neel Resource Center on Wednesdays from 2:30-5:00. This is in addition to being open to drop-in help during the week and availability permitting, at his office on the library's second floor.

Computing and Technology Support. The library has over 300 computers available to students (see http://lib.calpoly.edu/study-spaces-and-tech/computers/**)**, including over 50 laptops. Due to a recent and innovative shift to a virtual desktop technology, *all* the computers now provide access to the full suite of software, including *Adobe Design Premium CC*, *SketchUp, Autodesk, Solidwork*s and *ArcGIS*. This move to a virtual desktop system has decreased loads on individual workstations further allowing for specialized software packages to be added and affording faculty the opportunity to propose specific software to Library Information Technology for consideration/implementation. Ten computing stations on the various floors provide full ADA access. All students can identify open computers or sign up for the next open one using a "live" utility that affords such capability. Students can also print 8½ x 11" sheets at 14 different stations throughout the library, either from library computers or wirelessly from their own. The library's PolyConnect lab, in addition to laptops, also checks out iPads and sundry technology items such as digital recorders and go-pros. And finally, in order to free print-based images from the books and

journals, there are four 11 x 17" scanners in the main scanning area on the second floor and a fifth deliberately placed near the architecture (NA) section on the third floor.

In an exciting collaboration to further support student engagement with digital technologies, the library is currently working with the Center for Innovation and Entrepreneurship to relocate their MakerSpace lab (currently called the "Innovation Sandbox") onto the first floor of the library. This relocated lab is slated to include space and expert help for a range of tools including, but not limited to, 3D scanning and 3D printing and providing an interdisciplinary space where ARCH students can share learning experiences with students from other disciplines.

Instructional and Digital Literacies Support. Architecture students and faculty receive personal support for their research and coursework needs through various channels stemming from the Kennedy Library's Academic Services, GIS and Data Services, and Special Collections and Archives.

Geospatial Studies Support. Kennedy Library's Data Services program (see http://guides.lib.calpoly.edu/dataservices) supports Architecture students in finding suitable basemap and geospatial data for design projects. In 2013 the library hired a full-time Numeric and Spatial Data Specialist to assist with this growing campus-wide demand which has directly resulted in improved access to datasets, user-friendly software such as Social Explorer, and fully functional online platforms such as *ArcGIS Online*. Data requested often include topographic contours, imagery, roads, building footprints, zoning information and more. These GIS data are identified, combined and converted into file formats compatible for student use in *AutoCAD* or *Rhino*.

Like the CAED Librarian, the Numeric and Spatial Data Specialist teaches sessions in collaboration with and at the request of course professors, and schedules one-on-one consultations with students and faculty. Architecture class sessions serve levels 200-400 and most-often include both an in-person overview as well as providing individual students with basemaps for particular projects. Outside of class, students are also able to receive email, walk-in, or scheduled help from the Data Specialist and, failing this, the program employs a limited number of student GIS assistants to cover simpler questions and extended hours. These peer-assistant hours are posted on the Data Services Research Guide. In the past two years, an average of 50 or more ARCH students per year have taken advantage of this one-on-one help and Data Services is actively planning to expand to meet future demand.

Other Sources of Assistance. Beyond contacting the CAED librarian and NRC director for in-depth help, ARCH students and faculty can access research assistance through Kennedy Library via many channels:

- The Research Help Desk (see http://lib.calpoly.edu/help-and-support/get-help/) on the second floor of Kennedy Library is staffed from 9am to 8pm Monday through Thursday, 9am to 5pm Friday, noon-5pm on Saturdays and noon to 9pm on Sunday. Inquiries can be made there in person or by phone.
- With a link on every Kennedy Library web page, online chat service is provided by the Library during "regular" weekday and weekend hours, but outside these hours it is provided by a national consortium *QuestionPoint 24/7* (see http://lib.calpoly.edu/teams/college-librarians/). It is quite easy, then, for a night-owl Cal Poly student to receive immediate help online from a librarian at another library.
- The Architecture Research Guide is a librarian-curated webpage that organizes links to the databases, catalogs and resources relevant to architectural needs (see http://guides.lib.calpoly.edu/architecture). This eliminates the need for students to navigate the nooks and crannies of the library website and still find the most essential tools.

Access to the library search tools, catalogs and databases is available 24/7, with remote access handled seamlessly so that students and faculty can access subscribed electronic resources from any global location with internet access.

Collections

The Neel Resource Center. The NRC's current collections are comprised of books, serials, digital images, and building material samples (see http://www.caed.calpoly.edu/neel-resource-center). These various media support the curriculum of the Architecture Department, and at the same time supplement Kennedy Library's book, serial, and digital collections.

To that end, the NRC offers resources that encourage students and faculty to study and understand architectural-related information and achieve design excellence in their projects. The CAED Neel Resource Center holdings strengthen the development of interpretive skills in architectural design, graphic communication, architectural history, building technology, and building material technologies. Continuing to upgrade the NRC's diverse collections has demanded both the improvement of existing collections (more material samples, more history images, and more student work images) and the transformation of these increasing collections into digital formats. Both the book and image collections are web accessible to on-campus and off-campus students and faculty.

Print Collections. With over 3000 books and 29 serials (see http://opac.libraryworld.com/opac/home), the NRC print collections emphasize procuring those resources that focus on a more the technically driven design world that emphasize:

a. New building technologies in architecture
b. Innovative architectural design through innovative building materials, their effects on the building skin, and their structural impact.
c. Graphic design skills in presentations
d. Sustainability in architectural design
e. 3d modeling and advanced 3d fabrications
f. Visual competency in architectural history both historical and modern

The depth of the NRC Collection does not support graduate level research. With its limited print collection holdings, the NRC resources are incapable of detail research for senior undergraduate or graduate thesis research; that must be accomplished with the CAED librarian at Kennedy Library.

Materials Collection. For the last 10 years, the development of the NRC Materials Sample Library has acquired 5600 building material samples from 420 manufacturers. These sample products have been cataloged with CSI specifications in a FileMaker Pro database that is not accessible on the Internet. Since 2015 the director and her staff are transferring the data and images to ARTstor Commons collection.

Image collections. The generous support for the ARTstor database by Kennedy Library provides access to two large architectural image collections, the ARTstor major collection holdings and the Cal Poly CAED Shared Shelf image collections. Architecture students and faculty are visually stimulated with digital images from these two ARTstor collections. The ARTstor image database is amassed from various outside image and photographic archives providers (museums, universities and many private collections). Students and faculty can access the ARTstor database on the Kennedy Library server. *Shared Shelf* is an additional, Kenned Library-subscribed resource allowing for local campus image collections to be uploaded, cataloged, and searched--simultaneously or separately--within the ARTstor platform. The NRC's Shared Shelf ARTstor collections are a unique subject-specific image collection (see http://library.artstor.org.ezproxy.lib.calpoly.edu/library/#1). Created with donations from CAED faculty travel images, this Cal Poly CAED Shared Shelf collection offers our college a select perspective on architectural history as seen through the eyes of our faculty. The faculty image collections are strongest in their capture of historical architecture images from countries in Asia, in particular, China, Korea, Japan and Thailand.

In addition to the history image collections in ARTstor, the NRC has images of the Building Materials Samples and CAED Student Works Archive.

Figure R: Total Holdings of NRC Collections

Collections	2009-2010	2015-2016
Total Book Collection	2,012	3047
LC-NA Titles	1,056	1670
Serials Subscriptions	54	29
Digital Images Total	25,630	29,000
Digital Images in ARTstor	0	14.500
Digital Images not cataloged in ARTstor Database	0	10,500
Materials Collection Product Samples	5,258	5656
Materials Collection Product Manufacturers	392	417
Construction drawings and building plans	219	0
Databases	3	4

Evaluation of potential acquisitions to NRC analog and digital collections is based on several factors, the most important being the cost, relevance, and anticipated use.

Book and serial collection acquisitions emphasize subject developments in:

- Architecture practice
- Innovations and applications of green and smart building materials
- Structural design with emphasis on wall details and building skins
- Visual information competency in the global-world architecture design
- Ecological and economic aspects of architecture design

Assessment and evaluation of acquisitions are executed in response to:

- Curriculum changes and course contents
- Recommendations from the faculty, the Dean, and the Architecture Chair
- Assessment of collection content and developments at the main library
- Developments in fields of architectural design, sustainability, building-material innovation, and global culture environments.

Digital Resources available in Kennedy Library's ARTstor databases (see http://guides.lib.calpoly.edu/az.php?s=53775):

- Architecture History digital image collections contains both national and international content including; historical, modern, and current building details.
- Materials database provides information on innovative and traditional materials; their properties, composition, applications, and sustainability
- Library World database provides web access to NRC's book collection with full Library of Congress catalog records.

Suitability and Currency of NRC Collections

- NRC Architecture History Image Collection

Only quality teaching images are included in the collection. Fortunately, the majority of AH images in the collection come from donated faculty travel images edited to correct lens adjustments.

- Book and Serial Collections

Additions to our book collection are made from scholarly publishers, including Birkhauser, MIT Press, Princeton Architectural Press, ACTAR, etc. The Director places an emphasis on subject titles that reflect a relevance to the Architecture curriculum and topics which project a potential or anticipated use.

- Materials Collection

Material sample acquisitions emphasize collecting those materials that are: sustainable, green, innovative, and smart materials. The 5,600 + samples collection provides hands-on experience with the dynamics and characteristics of the current material-driven built environment.

Robert E. Kennedy Library. Kennedy Library collections provide support for Architecture students in respect of both General Education requirements and departmental undergraduate and graduate coursework. (See Section 4.5 Information Resources Policies). The library leverages affiliations with consortia, memberships, and networked relationships to provide optimal access to information resources. As a CSU member Cal Poly gains access to a wide variety of databases that might not be affordable to a stand-alone institution. As a member of Rapid Interlibrary Loan (ILL), requests for articles within our subscriptions are delivered digitally, usually in less than a day, with more obscure requests commonly finding fulfillment from 1 to 3 days via the broader ILIAD system. Cal Poly users also can access print articles from 175 journal and serial titles. The more popular of these reside on the library's shelves while lesser-used, more historical volumes are available within 24 hours from storage in Dexter Hall (next door to Kennedy Library). Beyond this, 185 architectural and ARCH-related journal titles are accessible electronically from anywhere, around the clock. In order to seek and discover both print and digital articles, users have online access to the "industry standard" *Avery Index to Architectural Periodicals* as well as supporting databases *Art & Architecture Complete*, *ARTStor*, *GreenFILE*, *Academic Search Premier*, and a library-sponsored, "enhanced" version of *Google Scholar* that links to articles behind our subscription pay-wall.

The ability to order print monographs from other libraries will be shifting in the near future, potentially slowing some requests that formerly would have taken a week or less to deliver. However, the effect on Cal Poly users will likely be negligible, as it has been mitigated by recent improvements. For one, the proliferation of 'multiple simultaneous user' ebooks acquired through both CSU-wide packages and hand-picked by the CAED Librarian means that nearly all ebooks—including 863 architecture titles—can be accessed by multiple users, 24/7, from anywhere. The library is also open to input for monographic purchases from students and faculty, and the CAED librarian has been able to honor nearly every book purchase request received in his 6½ years at Cal Poly. As such, simply having the presence of a stable, college-focused librarian has meant an evolving and detailed knowledge of curriculum as well as student and faculty interests, which have informed the current collection thoroughly and helped fill in former gaps that were once primarily serviced through ILL requests.

Figure S: Number of Physical Architecture and Related Monograph Titles by Classification 2016

Call Number/Subject	Print Monographs
Subclass HT – Communities (including Urban Planning & Design)	2,101
Subclass N – Visual Arts (general)	3,994
Subclass NA – Architecture	12,293
Subclass NB – Sculpture	630
Subclass NC – Drawing (including Design and Illustration)	1,315
Subclass NK2200-NK2750 – Furniture	217
Subclass TA401-TA492 – Building Materials	1,441
Subclass TG – Bridges	126
Subclass TH – Building Construction	2,157

In addition to the traditional classifications above, the CAED Librarian's current and ongoing collecting areas include (but are not limited to):

- Sustainability (in multiple forms)
- Climate Change/Flexibility
- Adaptive Reuse
- Biomimicry
- Portable/Lightweight Architecture
- Humanitarian Architecture
- Building Systems
- Theory
- Aesthetics
- Building Typology
- Californian Architecture
- Designing for Mediterranean Climates
- Details

In Fall 2015, the library hired an Open Content and Digital Publishing Librarian who has been assisting in connecting faculty and students to high-quality free, low-cost, and library-funded electronic textbooks (see http://lib.calpoly.edu/search-and-find/open-resources/required-textbooks/). This involves outreach through workshops, email networking, and other awareness-raising techniques. In 2015-16, she worked with instructors for ARCH 207, 251, and 341, which matched textbooks with 51 students.

The library provides several options for archiving senior projects, graduate theses and faculty scholarship. At present, top ARCH senior project images and supporting materials are being digitally archived along with valuable metadata cataloging by the NRC Director in the ARTstor Shared Shelf subscription service. This choice was made due to the robust visual nature of the ARTstor platform as well as the ability to control access. For more traditional media that translate well to PDF, the library offers

DigitalCommons@CalPoly (seehttp://digitalcommons.calpoly.edu/). Within the architecture discipline, this option works well for graduate and faculty scholarship, providing a highly discoverable web presence as well as reports on download metrics sent to each author monthly via email. Senior projects submitted prior to 2009 have been microfilmed and are located in close proximity to projection readers and the Research Help Desk on the library's second floor, while pre-Digital Commons Master's theses are stored in print on the library's shelves.

Facilities and Equipment

Neel Resource Center. The NRC is located in the CAED and functions as an information resource unit for the College and its five departments. The NRC is administered by a full-time director who reports to the Associate Deans of the College. The NRC director is responsible for all NRC operations, including development and maintenance of print and digital collections, management of staff, budget, and the development of long-range planning. Operations of the center support the curriculum and mission statement of CAED and Architecture Department. The quality and the diversity of the NRC resources promote the mission of the Architecture Department by providing resources that encourage students and faculty to study "design excellence, technical knowledge and contextual understanding in the creation of the built environment".

Robert E. Kennedy Library. Kennedy Library has extensive hours of operation. It is open Sunday through Thursday until midnight, with shorter hours on Friday and Saturday (see http://lib.calpoly.edu/study-spaces-and-tech/open-hours/). The five-floor, 35-year-old building has more than 2000 seats that variously support quiet and group study, and has been voted by Cal Poly students as "Best Study Spot" every year since 2006. In Fall 2015, the NA (architecture) book collection was given a unique new home in lower shelving, allowing for easier browsing and befitting what is perennially the most heavily-used collection of academic (non-children's) books in the library. A recently expanded study area comprising most of the first floor is open to students 24/7, with options for both quiet and group study. The library's Technology and Media Coordinator, who graduated from the Architecture program in 2012, designed this newly renovated area.

The library is also devoted to addressing the campus-wide scarcity of small-group, collaborative and enclosed workspaces. The library currently includes twelve large collaboration rooms and nine group study rooms. These rooms, which can be reserved, are in high demand. To further support the varieties of collaborative learning that students will need to be successful in their student and post-student careers, eight more were recently added on the third floor near the architecture collections, with a few more on the way elsewhere in the building. In addition to these collaboration rooms, there are two larger rooms dedicated to graduate study, entrance to which is automatically activated by graduate students' ID cards.

Special Collections and Archives

Special Collections and Archives is an important department within the library and noteworthy in this report since the most prominent collecting area to date is architecture (see http://lib.calpoly.edu/search-and-find/collections-and-archives/architectural/). Architectural drawings, plans, and correspondence by Julia Morgan as well as modern California luminaries William F. Cody (Palm Springs) and Mark Mills (Big Sur) provide an historic and eclectic picture of Twentieth Century innovation and styles (see https://magazine.calpoly.edu/spring-summer-2016/desert-modern-william-f-cody-papers/). These collections make for an immediate, tangible way to connect current students to the recent past of their future profession. Since 2010 the department has steadily grown the number of digitized architectural records, plans and photos, currently totaling over 4500.

In the past five years, the department has increased its commitment to instruction, including a Julia Morgan Charrette in 2012 that involved the entire cohort of Architecture sophomores. In the past

academic year, five different Architecture courses took advantage of the archives for course research, working with the Instruction Specialist. Students in these course collaborations ranged from first to fifth-year, and studied materials including the Artists' Book Collection, the William F. Cody Papers, and the Julia Morgan Papers. Additionally, last year about 50 ARCH students conducted independent research in Special Collections, investigating primary (original) architectural materials and secondary sources on a variety of research topics, such as senior project research on local sites or in seeking inspiration for their own creations based on historical sources.

Collaborations

The library collaborates frequently with the Architecture Department and the NRC. Most recently the library has worked with students and professors to display work on or near the NA (architecture books) section of the third floor. This work began with the addition of ARCH Assistant Professor Clare Olsen's mounted installation, *Reflection*, in the grand stairwell of the building and continued with two expansive displays of student models and furniture in the newly added low NA shelving on the third floor. Specifically, last winter the ARCH 133 wooden Port San Luis Pier projects were exhibited, and from June-December 2016, award-winning fifth-year models and furniture are on view, along with select third-year projects.

Over the past six years the CAED librarian and NRC director have worked very closely delivering workshops for faculty on Image Citation and ARTstor's Shared Shelf as well as dual materials resource instruction and freshmen orientations. The NRC director has been instrumental in promoting the value of the library's more-comprehensive architecture collections and reference services to the students and provided crucial input (not to mention putting in hundreds of hours of image population work) on the establishment of Shared Shelf for image-heavy collections.

Staffing

Neel Resource Center. The current NRC Director holds a BA degree in Art Education from Montclair University, an MS degree in Art Education from Pratt Institute and completed MA degree course work in Art History from University of California, Davis. The Director has acquired vast knowledge of historical precedents, contemporary case studies, building types and building materials through her 20 years of experience performing architectural information research. Her creative information-seeking skill in the architecture subjects is an acquired skill perfected through years of reference work with students and faculty.

The NRC Director reports to the Associate Deans of the College and has overall responsibility for the center's operations, including development and maintenance of collections, management of staff and budget, and long-range planning and facility renovations. Support staff for the MRC consists of 5 part-time student assistants each working 6-10 hours a week.

Robert E. Kennedy Library. The current CAED Librarian, Jesse Vestermark, arrived at Cal Poly in 2010 and was awarded tenure and promotion to Associate Librarian in 2016. He holds a BFA in Painting and Drawing from the University of Minnesota, MFA and MA (concurrent) degrees in Painting and Drawing from the University of Wisconsin, and a Master's in Library Studies, also from the University of Wisconsin. In 2008, he was awarded a post-graduate Kress Fellowship in Art Librarianship at Yale University.

The CAED Librarian dually serves both the academic and service-based programs of the library and the academic and resource needs of the college. As such, he reports to the Kennedy Library Associate Dean for Academic Services, but is in frequent consultation and collaboration with CAED administration, faculty, and staff. At present, his service to CAED is informed and enriched by nine years of professional librarianship experience, an additional nine years of para-professional experience in public K-12 education, and twenty years spent as an academic and practicing visual artist.

Funding

The Neel Resource Center. Since the funding reduction of 2008, the NRC Director successfully obtained non-CAED funds from Verla and Paul Neel Fund, the Harold Hay Fund, and income from the Printing Service which provide major additions to the NRC budget and greatly offset the College's cut-back on funding.

Figure T: NRC Budget, Architecture Department

	2009-2010	2015-2016
TOTAL	$32,566.00	$24,004.00

Robert E. Kennedy Library. While the CAED Librarian's personal budget has been reduced roughly 20% since the last NAAB accreditation, the California State University Library System has covered much of the loss centrally through its consortium-based ebook subscription initiatives. The CAED Librarian has also initiated a small number of new yearly subscriptions since 2010, including *MARK*, *Architecture Australia* and *Artichoke*.

Figure V: CAED Librarian-Selected Print and Electronic Monographic Budget

	2010-2011	2015-2016
CAED TOTAL	$17,200.00	$13,600.00
ARCH TOTAL (40% of CAED TOTAL)	$6,880.00	$5,440.00

I.2.5 Administrative Structure & Governance

Administrative Structure: According to the NAAB 2014 Conditions, the program must describe its administrative structure within the context of the institution.

The System. Cal Poly is one of 23 campuses in the California State University, the nation's largest system of senior higher education. The system reproduces many of the institutional functions of an individual campus at a higher level.

The Chancellor, Timothy White, is the chief executive. The Chancellor reports to the 25-member Board of Trustees, which provides independent oversight for the system as a state agency. By law, the governing functions of the board include developing administrative policy, providing broad curricular direction, overseeing the assets of the system and its campuses, and appointing the chancellor, the vice-chancellors, and the individual campus presidents.

There are vice chancellors in charge of finance, advancement, academic and student affairs (one position), and human resources, who all report to the chancellor, as do the campus presidents. (See http://www.calstate.edu/bot/org_chart.shtml for the system's organizational chart).

The University. The University President, Jeffrey Armstrong, is the chief executive. Although the President has a cabinet of external advisors, he reports to the Chancellor and not a campus board of trustees.

Four vice presidents report to the President. Each is in charge of a university division: Academic Affairs, Administration and Finance, Student Affairs, and University Advancement. The Provost, Kathleen Enz Finken, is Executive Vice President for Academic Affairs. (See http://president.calpoly.edu/organizational-charts-cal-poly for the university's organizational chart.)

The Cal Poly Corporation is an auxiliary to the university. The corporation provides facilities and support services, such as dining and retail sales, which help the institution achieve its educational mission.

The Registrar and the Director of Intercollegiate Athletics both report to the Provost, as do the six academic Deans, three Vice Provosts, and three Associate Vice Provosts. (See http://president.calpoly.edu/organizational-charts-academic-affairs for the Academic Affairs organizational chart.)

College and Department. The Dean, Christine Theodoropoulos, is the chief executive of the College of Architecture and Environmental Design (CAED). Her management group includes two associate deans, two assistant deans, and the five academic department heads — Architecture, Architectural Engineering City and Regional Planning, Construction Management, and Landscape Architecture.

The Dean is responsible for the overall operations of the college, including oversight of instructional programs, approval of faculty and staff appointments, review of promotion and tenure decisions, as well as sabbatical applications, allocation of financial resources, assignment of space, development of policies and procedures, and coordination of external relations.

As the Associate Dean for Academic Affairs, Michael Lucas supervises the Director of the Neel Resource Center, Vickie Aubourg, and the Student Advising Director, Ellen Notermann. As the Associate Dean for Administration, Kevin Dong supervises all the college facilities and equipment as well as an associated group of technical coordinators: Josef Kasparovich for Media Production, Stephen Spencer for Computer Services; David Kempken for Instructional Shops; and Garet Zook for Exhibits (a position shared with the College of Liberal Arts).

The Dean appoints the five department heads upon the recommendation of their respective faculties. (See Figure W below for the college organizational chart.)

Figure V: CAED Organization Chart

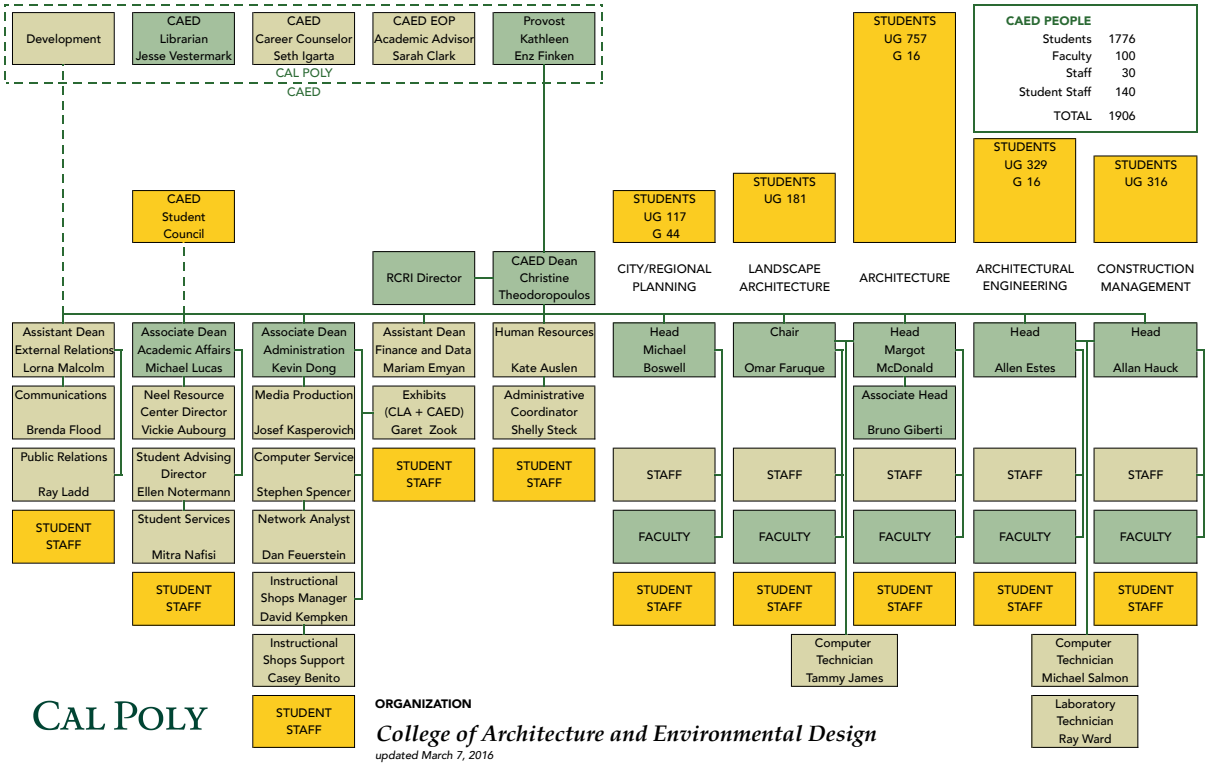
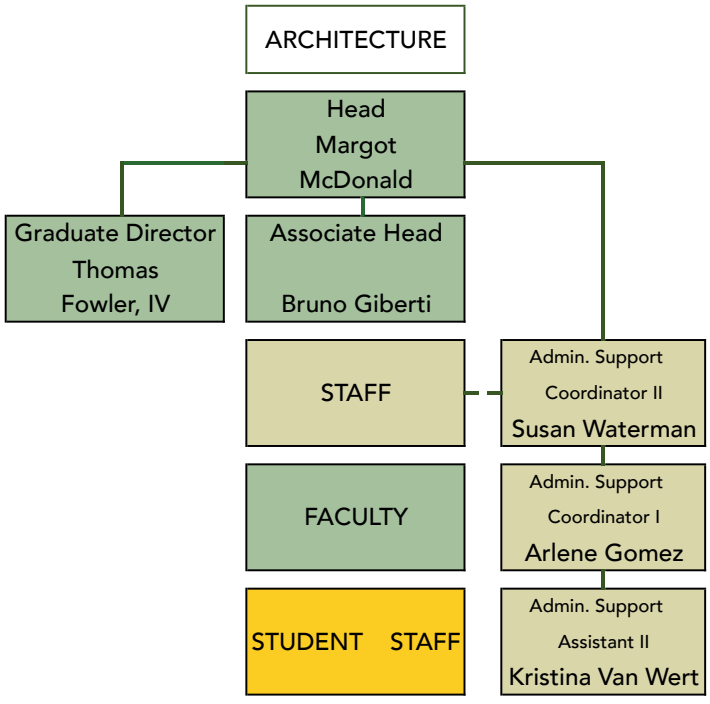


Figure W: Architecture Organization Chart



The Architecture Department Head, Margot McDonald, has the support of two part-time administrators: the Associate Department Head, Bruno Giberti, and the Graduate Director, Thomas Fowler IV. The Architecture staff includes the Administrative Support Coordinator II serving as an executive assistant to the head, the department operations coordinator, and personnel specialist, Susan Waterman; an Administrative Support Coordinator I serving as the class scheduler, graduate programs and off campus programs facilitator, Arlene Gomez; and, an Administrative Support Assistant II serving as the facilitator for office procedures related to travel, financials, keys, etc., Kristina Van Wert; and two student assistants, Hunter Smith and Grace Guinness.

Shared Governance

According to the NAAB 2014 Conditions, the program must describe the role of faculty, staff, and students in both program and institutional governance structures and the relationship of these structures to the governance structures of the academic unit and the institution.

Higher education traditionally rests on the foundation of shared governance. This arrangement between faculty and administration comes to bear in at least two significant areas: curriculum and peer review in making appointment, retention, and tenure decisions.

As described elsewhere in the report, the curriculum process reflects the capacity of each party, with the faculty assuring the quality of curriculum proposals and the administration assuring the resources. Proposals for new courses and subprograms, i.e., minors and concentrations, require faculty approval at three levels: by the department, college, and Academic Senate curriculum committees. They require administration approval at only two levels: by the department head and by the college dean. Proposals for new programs require approval at the fourth level of the chancellor's office. The campus process is described in the online Curriculum Handbook (see http://registrar.calpoly.edu/curriculum-handbook).

The size of the Architecture faculty makes collaboration and teamwork most effective at the level of the curriculum areas. These areas have been defined as First, Second, Third, Fourth, and Fifth Year Design, as well as Architectural Practice, Environmental Control Systems, History/Theory/Criticism, and the Graduate Program. Each area has its own coordinator, who leads the area faculty and who advises with department head on decisions affecting the area. The coordinator also represents the area on the Architecture Department Curriculum Committees, which meets as necessary to consider curriculum proposals. The process is described online in the Curriculum Committee Policy (see http://architecture.calpoly.edu/faculty/administration/curriculum-committee).

Fourth-year off-campus programs provide another important opportunity for faculty members to exercise curriculum-related leadership. Each program has its own faculty coordinator, who provides oversight, reviews applications, and advises students before, during, and after their off-campus experience (see http://architecture.calpoly.edu/current/fourth-year-off for links to the individual program pages). The coordinators meet as a committee to address issues that are common to the many programs.

The peer review process for the purpose of appointment, retention, promotion, and tenure has a decision structure that is similar to that of the curriculum process, with recommendations made by faculty committees at the department and college level, as well as by the department head and college dean, depending on the personnel category. Actions relating to adjunct faculty members are reviewed at the department and college level only, with the final decision made by the dean. Actions involving tenure-line faculty are made at the department, college, and university level, with the final decision made by the provost. The two exceptions are post-tenure reviews and the first-year retention review of probationary faculty members, neither of which go above the level of the dean. (See Section 4.8 Faculty Appointment and Promotion Policies).

Personnel policies and criteria statements at the department, college, and university levels are available at http://www.academic-personnel.calpoly.edu/content/policies/criteria.

The Architecture Department is unusual in having a longstanding committee of the Tenured Faculty, which is a source of continuous collective leadership that becomes especially important in the search for a new department head or new faculty members. At those moments, the chair of this committee plays a leadership role in managing faculty discussion and decision-making above the level of the search committee. This process is described in the department's governance policy (see **Section 4.10 Governance**) and its Search and Screen Process Policy (see http://architecture.calpoly.edu/faculty/administration/search-screen).

Academic Senate and University Committees. There are other department- and college-level committees in which Architecture faculty members play a leading role. These include the department committee making annual decisions on the large number of scholarships and awards available to Architecture students (see http://www.architecture.calpoly.edu/opportunities/scholarships). But the major engine of shared governance at the university level is the Academic Senate and its standing committees and task forces (see http://www.academicsenate.calpoly.edu/content/senate_comm for a list of committees). As might be expected, the Academic Senate Curriculum Committee sees the most business — the load is often crushing — but the other committees, especially Faculty Affairs, General Education, and Instruction, remain highly active from quarter to quarter.

The Constitution of the General Faculty gives the Academic Senate powers that are both deep and broad:

> In order to participate fully in the process of joint decision-making and consultation with the administration, the Academic Senate is empowered to exercise all legislative and advisory powers on behalf of the General Faculty. These legislative powers shall include all educational matters that affect the General Faculty (e.g., curricula, academic personnel policies, and academic standards). Advisory powers shall include, but not be limited to consultation on budget policy, administrative appointments, determination of campus administrative policy, university organization, and facilities use and planning.

The senate conducts its business by means of resolutions, which are discussed in two separate readings, moved to approval after the second reading, debated, and then potentially amended before being approved. Senate resolutions, which constitute important sources of academic policy, are digitally archived through Kennedy Library's Digital Commons @ Cal Poly (see http://digitalcommons.calpoly.edu/academicsenate/).

The Academic Senate further participates in university governance by nominating representatives to a number of university standing committees (see http://president-stage.calpoly.edu/university-organization/#committees for a list of links). These committees exist under the rubric of the President's Office (see http://president-stage.calpoly.edu/university-organization/#committees for a complete list).

Student Government. All of the Academic Senate committees have student representatives, but Cal Poly students exercise their governance role most powerfully through Associated Students Incorporated (ASI). This body serves an important consultative role on a wide variety of student-related issues but it also holds significant responsibilities for the management of the Student Union, Recreation Center, Sports Complex, and Children's Center.

The three branches of student government consist of the following:

- The Executive Cabinet, including the ASI President, Chief of Staff, and various secretaries.
- The Board of Directors, including 25 student representatives elected from the colleges.
- The University Union Advisory Board, with nine student members, plus representation from other stakeholders.

See http://www.asi.calpoly.edu/student_government for a complete description of the structure and function of student government, as well as a complete list of campus committees to which students can participate.

Over the last two decades, as the State of California has reduced its CSU subsidy, Cal Poly students have voted to recommend three separate fee increases: The *Cal Poly Plan* in 1996, the College Based Fee (CBF) in 2002, and the Student Success Fee in 2012. All of them involved some form of student participation in committees recommending the allocation of these fees. This scheme became somewhat redundant as more and more of the increases were dedicated to providing the courses that students would need for timely graduation. Currently the Student Success Fee Allocation Advisory Committee is the only committee that is active, although the Architecture Department has plans to revive the CBF committee in the current academic year.

II.1.1 Student Performance Criteria

According to the NAAB 2014 Conditions, the APR must include a matrix for each accredited degree program offered and each track for meeting the requirements of the professional degree program, which identifies each required course with the SPC it fulfills. The Architecture Department offers only one accredited degree program. Please see the BARCH matrix in Section 4.16 SPC – Student Performance Criteria. Please note: The Course Outlines, which are also in Section 4, have been edited to show proposed changes to the course descriptions. These are not yet reflected in the online catalog.

Pedagogy and Methodology Used to Address Realm C. As describe above, in **Section 2. Progress since the Previous Visit,** the Architecture Department has focused its efforts to address unmet conditions from the previous review — B2 Accessibility, B5 Life Safety, and B6 Comprehensive Design — on the third-year courses in ARCH and ARCE. As a result, for the SPC associated with **Realm C: Integrated Architectural Solutions**, the courses in which the greatest evidence of student achievement are expected to be found are in third year — ARCH 341 for C1 Research and ARCH 353 for C2 Integrated Evaluations and Decision-Making Design Process as well as C3 Integrative Design. (Evidence for student achievement of C2 is also expected to be found in ARCH 492.)

Winter and spring courses in third year are linked to create a two-quarter, comprehensive design experience, which serves as the culmination of a two-year sequence of courses in architectural design, engineering, and practice, as well as environmental control systems.

This sequence serves as the integrative core of the curriculum, building on the first-year, foundation-level experience and preceding the fourth-year, off-campus programs and the three-quarter, fifth-year thesis project.

Please see above, in **Section 2**, for a more detailed account.

Brief Description of Methodology for Assessing Student Work. Faculty members were asked to submit examples of high- and low-pass work for display to the visiting team during the accreditation review.

II.2.1 Institutional Accreditation

Since 1951, Cal Poly has been fully accredited by the Western Association of Schools and Colleges. In its most recent effort to reaffirm its accreditation, the university conducted a two-part self-study titled "Our Polytechnic Identity in the 21st Century," which focused on the themes of Learn by Doing, the Teacher-Scholar Model, and Integration and Student Learning. After the last site visit in the spring of 2012, the WASC Commission commended the university "for an impressive increase in six-year graduation rates from 65% for the 1996 cohort to 76% for the 2005 cohort." The commission emphasized two areas for further attention and development: "promoting diversity and inclusive excellence" as well as "assessing and improving undergraduate learning." Finally, the commission took action to reaffirm the university's accreditation for the maximum period of ten years while requesting an interim progress report in the spring of 2015. The complete WASC documents are available on the Cal Poly web site.

The WASC Commission asked for an interim report demonstrating progress in achieving a more diverse faculty and student body, increases in the success rates of all students, and improvements in campus climate. "It is evident," concluded the panel reviewing the report, "that addressing these issues has become a high priority at the university." The panel acknowledged many "areas of gain," such as the establishment of the Office of University Diversity and Inclusivity, while encouraging the institution to set quantifiable goals for the diversity of students, staff, and faculty. Regarding the assessment of undergraduate learning outcomes, "The thoroughness of the Interim Report demonstrated that the university went far beyond what the Commission anticipated, illustrating that the institution is not just committed to meeting Commission expectations but in improving educational effectiveness as part of its DNA." The panel commended "the university not just for thinking from an individual faculty perspective but in keeping a focus on all three levels – program, department, and university – when universities more typically focus on one or two," while making just one recommendation: "to continue thinking about how technology can be more effectively utilized in assessment."

Scoping for the university's next self-study will begin in the summer of 2019, with the self-study beginning in the fall of the same year. The institutional report will be due in the summer of 2021, with the offsite review scheduled in the fall of that year and the accreditation visit in the spring of 2022. (For more information, please see the Cal Poly WASC Accreditation page.)

II.2.2 Professional Degrees & Curriculum

Cal Poly's Architecture Department offers the five-year Bachelor of Architecture (BARCH) as the sole professional degree. There is no prerequisite degree, but transfer students seeking admission to the third year of the BARCH program must complete the required and desired courses specified in the Transfer Admission Criteria (see http://admissions.calpoly.edu/applicants/transfer/criteria1516/arch.html for Fall 2016 criteria).

The BARCH flowchart for the 2015-17 Catalog shows the quarterly path to degree (see http://flowcharts.calpoly.edu/downloads/mymap/15-17.20ARCHBARU.pdf). The curriculum is dominated by the continuous, five-year sequence of design courses, each year having its own identity within the overall program. First Year Design is a foundation-level experience. Second Year provides an introduction to more realistic problems; it helps to form the integrative core of the curriculum along with Third Year Design and a two-year sequence of courses in Architectural Practice and Environmental Control Systems. Fourth Year is devoted to off-campus experiences, in which the majority of students participate for one to four quarters. Finally, Fifth Year is the locus of the one-year-long senior thesis, or senior project, as it is known at Cal Poly — an expression of mastery and independent thinking that students take on before entering the profession or continuing to graduate school.

Shorter streams in architectural History, Theory, and Criticism, as well as calculus, physics, and architectural engineering, support the longer design sequence. In contrast to the typical undergraduate experience, in which students take two years of general and two years of major studies, BARCH students are expected to take five years to complete their General Education (GE) requirements. This is an expression of the GE curriculum, which includes 12 quarter units of upper division coursework, and Cal Poly's "upside-down" curriculum, which arises from the fact that all students must declare a major when they matriculate, with freshmen thus starting their major studies sooner than they might on another campus.

All in all, BARCH students must complete a total of 225 units in applicable courses to earn the degree. Figure Y shows the required and actual distribution of general studies, required professional studies, and optional studies within this total.[1] Cal Poly's BARCH program meets or exceeds all the NAAB required minimums.

Figure X: Minimum Credit Distribution for NAAB Accredited Degrees

	Minimum BARCH (Semester Units)	Minimum BARCH (Quarter Units)	Actual Cal Poly (Quarter Units)
General Studies	45	67.5	68
Optional Studies	10	15.0	18
Professional Studies	As defined by program		139
Total	150	225.0	225

The total number of quarter units in what NAAB calls General Studies (68) does not match the total number of units in what Cal Poly calls General Education (72) because of the double counting of certain major or support courses (ARCH 217 and ARCH 218) and because BARCH students take an extra course (PHYS 122/132) that counts toward General Studies.

List of Minors or Concentrations. Although the BARCH program does not offer any concentrations, students can choose from a long list of minors offered in other academic units across the campus (see http://catalog.calpoly.edu/programsaz/#minors for links).

The BARCH curriculum provides significant curricular flexibility in the form of 18 units of professional electives. Students may apply these units toward any course taken:

- In the CAED under the EDES (Environmental Design) prefix
- In one of the CAED's five departments — Architecture (ARCH), Architectural Engineering (ARCE), Construction Management (CM), City and Regional Planning (CRP), and Landscape Architecture (LARC)
- In the Art and Design Department (ART) of the College of Liberal Arts

Students may also apply these professional elective units to any course included in a minor offered by the college or the above departments. These include:

- Integrated Project Delivery, Real Property Development; Sustainable Environments (CAED)
- Architectural Engineering
- City and Regional Planning
- Construction Management
- Art History, Photography, and Studio Art (offered by Art and Design)

As of July 15, 2016, the most popular minor program for BARCH students was Sustainable Environments with 95 students enrolled, followed by Construction Management with 21 students. Out of 812 total ARCH students, there are 181 minors. Please note: Some students may be enrolled in more than one minor.

Figure Y: Students in Minor Programs as of July 15, 2016

Minor Programs	**Students (#)**	**Students (%)**
Sustainable Environments	95	52%
Construction Management	21	12%
Architectural Engineering	9	5%
City & Regional Planning	9	5%
Art History	5	3%
Studio Art	5	3%
Graphic Communication	4	2%
Psychology	4	2%
Real Property Development	4	2%
Spanish	4	2%
Anthropology-Geography	3	2%
Photography	3	2%
French	2	1%
History	2	1%
Media Arts & Tech	2	1%
Music	2	1%
Theatre	2	1%
Dance	1	1%
Environmental Studies	1	1%
Industrial Technology	1	1%
Latin American Studies	1	1%
Religious Studies	1	1%
Totals	**181**	**100%**

Minimum Number of Credit Hours Required for Each Quarter. The BARCH program does not specify the minimum number of credit hours that a student must take each quarter. The flowchart does recommend that, to maintain progress to degree, students should take specific courses each quarter, adding up to a certain number of hours.

Students receiving financial aid are subject to a separate set of expectations. First, they must be enrolled full-time, which is defined as 12 units per quarter for undergraduates (see http://financialaid.calpoly.edu/_finaid/apply/vital16.html). Second, students receiving federal and state financial aid are subject to Satisfactory Academic Progress (SAP) standards. At the end of spring quarter, the university checks unit completion, grade point average, and number of terms enrolled annually, for all terms of enrollment, even if students are not currently receiving financial aid. For BARCH students, the maximum term of eligibility for financial aid is 21 quarters — six more than the freshman minimum of 15 required to complete the degree.

The university's Expected Academic Progress Policy (see Academic Standards) sets standards for annual progress toward degree completion that apply to all students. "Expected Academic Progress is defined as making appropriate degree progress each academic year by earning a certain percentage of degree applicable units that meet major, support, general education, concentration, and free elective (if applicable) requirements that are directly associated with the student's declared major."

To maintain expected academic progress, BARCH students who enter as freshmen must complete 20% of their total degree-applicable units by the end of their first year, **40%** by the end of their section year, **60%** by the end of their third year, **80%** by the end of their fourth year, and **100%** by the end of their fifth year. Transfer students must meet a different progress standard than native freshmen.

Failure to make progress as described in the policy may result in a hold being placed on the student's registration or the student being placed on a form of academic probation. Students may be required to meet with an academic advisor and develop an academic plan for getting back on track. Continued failure to make progress may result in the student's being disqualified, i.e. dis-enrolled, from the university.

Off-Campus Programs. Over the years, the BARCH program has developed an especially robust commitment to off-campus programs. Given Cal Poly's small-town location, these programs serve a critical educational function.

Whether domestic or international, the off-campus programs provide students with valuable opportunities to develop the understanding associated with **SPC A.8** Cultural Diversity and Social Equity. With few exceptions, these programs are located in large metropolitan areas, so they also provide students with opportunities to develop the ability associated with **B.2** Site Design.

One subset of the off-campus programs allows students to being the Intern Development Program by accumulating work experiences for academic credit:

- Co-operative (Co-op) Education, in which students identify their own full- or part-time internship opportunities. Students can substitute one quarter of a full-time co-op experience for one quarter of Fourth Year Design, which enables them to work a six-month internship by combining the summer with spring or fall quarter.
- Professional Studios, in which students work part-time under the direction of practitioners who also assign a design or research project.
- Los Angeles and San Francisco Metro Programs, which include a studio and a part-time internship.

These three programs provide students with opportunities to develop the understanding associated with **SPC D.1** Stakeholder Roles in Architecture, **D.2** Project Management, **D.3** Business Practices, and **D.4** Legal Responsibilities.

Informational meetings for each program are held by faculty advisors in fall quarter, and applications are due in January. To be eligible, students must have a minimum 2.5 GPA; some programs have a higher minimum (See Section 4.15 Off-Campus Programs). In addition, to participate in three-quarter programs, students must have completed all the prerequisites for Fourth Year Design by the end of the preceding summer quarter. Students who have not completed the prerequisites by this time may still be able to participate in one- or two-quarter programs.

All programs provide students with opportunities to receive credit for at least one quarter of Fourth Year Design. Depending on the program, students may also receive credit for ARCH 420 Seminar in Architectural History, Theory, and Criticism; ARCH 443 Issues in Contemporary Professional Practice; professional electives; or certain GE requirements.

Most of these programs are managed by Cal Poly's International Center (see Cal Poly Study Abroad), which is a unit of International Graduate, and Extended Education. A search for "Architecture" on the International Center's "Programs" webpage yields a list of links to online brochure for each program. Fees and expenses vary, but the variety of programs — domestic and international; one, two, or three-quarters; incorporating a work experience or not — make it more likely that a diversity of students, from more or less affluent backgrounds, can participate.

Other Degree Programs. The only other degree program offered by the Architecture Department is the post-professional Master of Science (MS) in Architecture (see http://architecture.calpoly.edu/prospective/masters). The MSARCH program has a research emphasis that prepares graduates for specialist positions in architecture, engineering, and construction.

The MSARCH curriculum requires a total of 45 units. There are two broad study areas:

- Innovating Material Practice, which focuses on new materials and material assemblies that are enabled by digital fabrication.
- Sustainable Architecture, which focuses on the built environment as a low-impact enhancement of the natural environment.

The MSARCH culminating experience is a master's project based on a proposal prepared by the student during the first year of the program.

BARCH students can also take advantage of two blended degree programs leading to the Master of Business Administration (MBA) and Master of City and Regional Planning (MCRP).
Students may apply for permission to take graduate courses in their fourth and/or fifth year. Upon completion of the BARCH program, they may apply for permission to either program. Please note: According to the catalog, there is a blended program leading to the MS in Architecture with a specialization in Architectural Engineering, but that program is only open to ARCE undergraduates.

Effect of Online Learning on the Curriculum. Cal Poly has a Moodle-based course management system known as PolyLearn (see the "PolyLearn Support" webpage at http://www.polylearnsupport.calpoly.edu). Every scheduled course is automatically provisioned with a PolyLearn shell to which an instructor can add activities (assignments, discussion forums, questionnaires, quizzes, etc.) and resources (files, folders, URLs, etc.). The shell incorporates a gradebook, which an instructor can use to provide students with grades and other confidential feedback.

Instructors can use PolyLearn more or less aggressively in connection with regularly scheduled courses. There are no online ARCH courses in the Cal Poly Catalog, but some 400-level courses are scheduled "TBA" (to be announced), and the instructors approximate an online environment by an aggressive use of PolyLearn. These courses include a section of ARCH 101, which has been offered to transfer students, and all of the co-op/internship courses (ARCH 485, 486, 495, and 496). In both cases, student schedules and/or locations favor an asynchronous learning environment.

Other than PolyLearn, the Architecture Department does not use online learning formats to deliver SPC-related content or to meet other program or institutional requirements in tandem with traditional onsite learning.

II.3 Evaluation of Preparatory Education

According to the NAAB 2014 Conditions, the Architecture Department must demonstrate that it has a thorough and equitable process for evaluating the preparatory or pre-professional education of individuals admitted to the BARCH program. Because of strong freshman demand, the department admits only a limited number of transfer students each academic year — the equivalent of an individual studio cohort of 18.

The evaluation of associate degree content is clearly articulated in the admissions process, as is the evaluation process and its implications for the length of a professional degree program. The general transfer admissions process is described on the department's "Prospective Transfer Students" webpage (see http://architecture.calpoly.edu/prospective/transfer). The specific transfer selection criteria, including the list of required and desired courses that must be completed before admission, are described on an Admissions webpage (see http://admissions.calpoly.edu/applicants/transfer/criteria1516/arch.html for Fall 2016).

Required courses have Cal Poly equivalents in GE, math, physics, as well as first-year architectural design and visual communication. Desired courses have Cal Poly equivalents in second-year architectural design and practice, as well as environmental systems.

Under a statewide system of articulation, Cal Poly enters into program-specific agreements with numerous California community colleges. These agreements, which are posted online (see the Assist system at http://www.assist.org/web-assist/welcome.html) facilitate transfer by specifying course equivalents.

CSU policy requires that transfer students be admitted as juniors, i.e., directly into the third year of the BARCH program. The result of this requirement is that transfer applicants must complete not only required but also all or most of the desired courses. The exception is ARCH 207, which has few community college equivalents and which the department offers to transfer students in the fall quarter.

Prospective transfer students apply in the fall, before they may have completed all the necessary coursework. University Admissions makes a decision to grant conditional admittance based on the coursework completed at the time of application and on the coursework expected to be completed by the end of spring. The timeline does not permit summer coursework be considered.

Conditionally admitted students are invited to submit a chronological portfolio documenting their work in required and desired architecture courses. This portfolio also includes unofficial transcripts documenting work completed as of spring semester. The Architecture Department does a preliminary analysis of these transcripts to ensure that the student has completed the necessary courses and that they provide the requisite number of student credit units for transfer.

In addition to this analysis, a faculty committee representing program leaders in the first, second, and third years examines the portfolios. They conduct a holistic evaluation, based on their accumulated experience as instructors, to ensure that the work presented in the portfolio meets or exceeds the standard set by the native freshmen. In cases where the work is comparable but the academic record is incomplete, the department has some discretion to make course substitutions where necessary and appropriate.

II.4 Public Information

II.4.1 Statement on NAAB Accredited Degrees. All institutions offering an accredited degree program must include the exact language found in the NAAB's *2014 Conditions for Accreditation*, Appendix 1, in catalogs and promotional media. The Architecture Department includes this language in the following locations:

- On the "Architecture" page of the online catalog (see http://catalog.calpoly.edu/collegesandprograms/collegeofarchitectureandenvironmentaldesign/architecture/).
- On the "Prospective Students" page of the Architecture Department's website (see http://architecture.calpoly.edu/prospective).

II.4.2 Access to NAAB Conditions and Procedures.
The Architecture Department makes the following documents electronically available to all students, faculty, and the public:

- The *2014 Conditions for Accreditation*
- The *2009 Conditions for Accreditation*, which were in effect at the time of the last visit
- The *2015 Procedures for Accreditation*

These documents are all available on the "Administration" page of the department's website (http://www.architecture.calpoly.edu/faculty/administration).

II.4.3 Access to Career Development Information. According to the *2014 Conditions*, the Architecture Department must demonstrate that students and graduates have access to career development and placement services that help them develop, evaluate, and implement career, education, and employment plans.

Cal Poly's Career Services (see http://www.careerservices.calpoly.edu/content/index) responds to the needs of various stakeholders — current students and graduates as well as employers, faculty and staff, as well as parents and prospective students. Services include the following:

- MustangJOBS, an online listing service (see https://calpoly-csm.symplicity.com/students/).
- Seasonal and discipline-specific career fairs (see http://careerservices.calpoly.edu/content/career-fairs-events-student-resource for the 2016-17 schedule).
- Portfolium, an online network for posting a profile, publishing work, and contacting employers (see http://careerservices.calpoly.edu/student/portfolium).

The Architecture Department also posts employment and co-op/internship opportunities (see http://www.architecture.calpoly.edu/opportunities/job-board and http://architecture.calpoly.edu/opportunities/coop-board, respectively).

II.4.4 Public Access to APRs and VTRs. To promote transparency in the process of accreditation in architecture education, the Architecture Department makes the following documents electronically available to the public:

- All Interim Progress Reports (and Annual Reports [narrative only] submitted 2009–2012).
- All NAAB responses to Interim Progress Reports (and NAAB Responses to Annual Reports [narrative] submitted 2009–2012).
- The most recent decision letter from the NAAB.
- The most recent APR (from the previous visit).
- The final edition of the most recent Visiting Team Report, including attachments and addenda.

These documents are all available on the "Administration" page of the department's website http://www.architecture.calpoly.edu/faculty/administration.

II.4.5 ARE Pass Rates. NCARB publishes pass rates by division for all candidates who took the Architectural Registration Examination (ARE) during each of the last five years. NCARB also publishes pass rates by school from 2007 to 2015. The rates include all candidates testing during a certain year.

This information is considered useful to prospective students as part of their planning for higher/postsecondary education in architecture. Therefore, the Architecture Department makes this information available by providing links to NCARB's ARE webpage and the department's own ARE web page from the department's "Prospective Students" web page (see http://architecture.calpoly.edu/prospective).

II.4.6 Admissions and Advising. According to the NAAB *Conditions*, the Architecture Department must publicly document all the policies and procedures that govern how all BARCH applicants — first-time freshmen (FTF), new transfer (NTR), and change of major (COM) — are evaluated for admission.

In general, Admissions is the most authoritative source of general and specific information on FTF and NTR admissions, for both applicants and newly admitted students (see http://admissions.calpoly.edu).

The Architecture Department does maintain the "Prospective Students" webpage (see http://architecture.calpoly.edu/prospective), which describes the three-step process of becoming an architect — education, experience, and examinations. This page includes the required statement on NAAB-accredited degrees and links to the Admissions homepage and other helpful sites. It also provides access to pages specific to freshmen, transfer, and change-of-major students seeking admission to the BARCH program.

Application Forms and Instructions. Students seeking admission to Cal Poly as FTF or NTR apply through CSU Mentor (see http://csumentor.edu). This website allows them to apply online to multiple campuses, release ACT scores, transfer application information to the Free Application for Federal Student Aid (FAFSA), and apply for tuition exemption through the Educational Opportunity Program (EOP).

Cal Poly students seeking a change of major to architecture apply directly to the department after seeking advising from the Mustang Success Center (see http://advising.calpoly.edu/change-major for the center's "Change of Major" page), the CAED Advising Center (see http://www.caed.calpoly.edu/content/change-major-policy for the center's "Change of Major Policy" page), or the Associate Department Head.

To discourage "back-door admissions," i.e., a FTF gaining admission to one major with the immediate intention of changing to another, the university's Change of Major Policy requires that all students must complete at least one quarter at Cal Poly before requesting a change (see http://catalog.calpoly.edu/academicstandardsandpolicies/otherinformation/#ChangeofMajor).

The department's Change of Major Policy has its own criteria (see http://architecture.calpoly.edu/prospective/change-major). The most important is based on the Multi-Criteria Admissions Score (MCA), which Admissions calculates as a ranking for each FTF student, based mostly on GPA and achievement test scores. Specifically, FTF seeking a change of major to architecture must have an MCA at or above the minimum for the FTF cohort that they would like to join.

For students meeting the COM criteria, the Architecture Department prepares the Individualized Change of Major Agreement (ICMA), which describes the conditions that must be met before they will be admitted to the ARCH major. These conditions may include a maximum of three specified courses, minimum grades in these courses, and minimum GPA requirements, among others.

Because of the sequential nature of the BARCH curriculum, the Architecture Department has allowed first-quarter FTF without the ICMA to enroll in fall quarter ARCH courses on a space-available basis.

Forms and a Description of the Process for the Evaluation of Pre-Professional Degree Content. The process is described above, under **II.3 Evaluation of Preparatory Education**, and on the department's "Prospective Transfer Students" webpage (see http://architecture.calpoly.edu/prospective/transfer).

Requirements and Forms for Applying for Financial Aid and Scholarships. Cal Poly's Financial Aid Office maintains a website (see http://financialaid.calpoly.edu) that provides information about the following:

- The cost of attending Cal Poly
- Applying for financial aid
- Different types of financial aid
- A variety of financial aid forms
- Legal and financial responsibilities

The Architecture Department maintains its own "Scholarships and Awards" webpage (see http://architecture.calpoly.edu/opportunities/scholarships), which provides information about opportunities that are affiliated with the department and access to information about the application process. The department also maintains the "Other Scholarships, Grants & Awards" webpage (see http://architecture.calpoly.edu/opportunities/other-scholarships), which provides information or access to information about opportunities that are not affiliated with the department.

Student Diversity Initiatives. Begun in Fall 2012, Cal Poly Scholars is a program aimed at recruiting and retaining high achieving students from California Partner High Schools (see http://sas.calpoly.edu/scholars/index.html). The partner schools join Cal Poly in a recruitment and retention program that is designed to increase the number of underrepresented students obtaining a college degree. Students applying for financial aid will automatically be considered for the CP Scholars Program.

II.4.7 Student Financial Information. The Architecture Department must demonstrate that students in the BARCH program have access to information and advice for making decisions regarding financial aid.

At Cal Poly, the Financial Aid Office has a fully developed website (see http://financialaid.calpoly.edu) that provides access to aid forms as well as information about student costs, aid applications, types of aid, and legal and financial responsibilities. Financial aid counselors are available Monday to Friday from 9 a.m. to 12 p.m. and from 1 p.m. to 3 p.m.

In addition, the department must demonstrate that students have access to an initial estimate for all tuition, fees, books, general supplies, and specialized materials that may be required during the full course of study for completing the NAAB-accredited degree program.

The "Cost of Attendance" webpage (see http://financialaid.calpoly.edu/_finaid/coa1617.html) indicates that, for a California resident, the AY 2016-17 price to attend Cal Poly as a full-time undergraduate will be $9075 in registration fees. Other costs include books, supplies, room and board, transportation, personal/miscellaneous expenses, and loan fees. The estimated total is $26,148.

A list of supplies and associated cost estimates are provided for incoming first year students on the department web site and welcome letter. Additional costs are listed on the Current Students web page.

III.1.1 Annual Statistical Reports

The APR must include a statement signed or sealed by the official within the institution responsible for preparing and submitting statistical data that all data submitted to the NAAB through the Annual Report Submission system since the last site visit is accurate and consistent with reports sent to other national and regional agencies including the National Center for Education Statistics.

The required letter follows on the next page.

CAL POLY
SAN LUIS OBISPO
Institutional Research

Tel 805-756-2204
Fax 805-756-5292

September 2, 2016

National Architectural Accrediting Board (NAAB)

The Office for Institutional Research (IR) at California Polytechnic State University (Cal Poly) in San Luis Obispo, is responsible for preparing and submitting statistical data for the campus. As Executive Director of IR, I certify that all data submitted to the NAAB through the Annual Report Submission system since the last site visit to the College of Architecture & Environmental Design at Cal Poly is, to the best of my knowledge, accurate and consistent with reports sent to other national and regional agencies.

Please do not hesitate to contact our office if you have any questions or further information is needed.

Sincerely,

F. Mauricio Saavedra, Ph.D.
Executive Director for Institutional Research
California Polytechnic State University
http://ir.calpoly.edu/content/about_ir/contact

California Polytechnic State University | San Luis Obispo | CA | 93407-9000

III.1.2 Interim Progress Reports

Per instruction from in the *2014 Conditions*, these reports are not included in the APR. The following material will be provided directly to the team by NAAB:

- All narrative annual or interim reports submitted since the last visit.
- All NAAB responses to annual reports submitted between 2008 and 2012.

Section 4. Supplemental Material

4.1 Course Outlines

4.2 Studio Culture

4.3 Assessment

4.4 Academic Integrity

4.5 Information Resources Policies

4.6 EEO AA Policies

4.7 HR Development Policies

4.8 Faculty Appointment and Promotion Policies

4.9 Institutional Research and Accreditation

4.10 Governance

4.11 Facilities

4.12 Faculty CVs

4.13 Faculty Expertise Matrix

4.14 Faculty Professional Development

4.15 Off-Campus Programs

4.16 SPC Student Performance Criteria

4.17 Institutional and CAED Strategic Planning

Endnotes

[1] *The Bulletin: Circular of Information and Announcement of Courses,* (San Luis Obispo: California State Polytechnic, 1941), 149.
[2] *Bulletin,* (1941), 20.
[3] *Bulletin,* (1947), 141.
[4] *Bulletin,* (1948), 145.
[5] *Bulletin,* (1950), 24; *Bulletin,* (1952), 103.
[6] Janice Fillip, Ray Takata, and Richard E. Byfield, *The Vision: Founding the College of Architecture and Environmental Design at California Polytechnic State University, San Luis Obispo* (San Luis Obispo, CA: E&C Pub., 2001), 3-4.
[7] *Bulletin,* (1952), 103.
[8] Paul Neel, former CAED Dean, telephone conversation, 18 August 2016.
[9] *Vision,* 49-50.
[10] *Vision*, 53.
[11] *Bulletin* (1968), 287; (1971), 96; (1972), 100.
[12] *Vision*, 57-58.
[13] Paul Neel.
[14] *Vision*, 62-63.
[15] Paul Neel.
[16] "Cal Poly Quick Facts," webpage, http://www.calpolynews.calpoly.edu/quickfacts.html, accessed 27 June 2016.
[17] State of California, *Education Code*, section 90404.
[18] Cal Poly, Institutional Research, "Fact Book," Fall 2015, 1; Cal Poly, "Our Polytechnic Identity in the 21st Century," WASC Education Effectiveness Review Report, January 2012, 11.
[19] Cal Poly, "Fact Book," Fall 2015, 12.
[20] Cal Poly, "Fact Book," Fall 2015, 5-7.
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[28] Dalton, Linda, et al., "Academic Plan," April 2016, 4-7, 25-26.
[29] Dalton, "Analysis of Enrollment Growth Potential for Cal Poly's Academic Programs," March 2016, 5.
[30] Finken, Kathleen Enz, "New Student Evaluation Requirement Effective Winter Quarter 2013," memo, 22 Feb. 2013.
[31] Cal Poly, "Guidelines for Student Evaluation of Faculty," Administrative Bulletin 91-3, n.d.