

**University of California Berkeley
Department of Architecture**

Architecture Program Report for 2016 NAAB Visit for Continuing Accreditation

M. Arch. (non-pre-professional degree + 72 credits)

**M. Arch. with advanced standing (pre-professional degree 120 credits + 48
graduate credits)**

Year of the Previous Visit: 2010

Current Term of Accreditation:

The professional architecture program: Master of Architecture was formally granted a six-year of accreditation. The accreditation term is effective January 1, 2010.

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Section 1. Program Description

I.1.1 History and Mission

INSTITUTIONAL HISTORY

The University of California at Berkeley was founded in 1868 as a land-grant institution under the terms of the Morrill Act, signed by Abraham Lincoln in 1862. Formed by the merger of two institutions, it was envisioned as a “City of Learning” embracing the purpose of land-grant colleges:

The land-grant mandate to produce new knowledge and education in public service to the state has been a founding principle at the core of Berkeley’s evolution over the last 147 years. It has guided its teaching philosophy, its basic and applied research production and its broad service agenda. In the process it has become recognized as **the premier public university in the world.**

INSTITUTIONAL DESCRIPTION

Berkeley is the oldest and the largest campus in the University of California ten-campus system and considered its flagship. It is a state-chartered and partially state-supported institution. Under the State of California’s Master Plan for Higher Education from 1960, the University of California was charged with emphasizing graduate and professional education and given the sole authority to award doctoral degrees.

Over the last 55 years student enrollments on the Berkeley Campus have grown to approximately 36,000 – 26,000 undergraduates and 10,000 graduate students each year. In a typical year Berkeley awards approximately 7,775 Bachelor’s degrees; 2,200 Master’s degrees; 372 Professional Doctorates and 930 PhDs. UC Berkeley awards more PhD’s annually than any other university in the United States.

Berkeley students benefit from access to internationally-renowned faculty throughout the campus. There are approximately 1,620 full time ladder–rank faculty and 616 part-time faculty members on campus, organized into more than 130 academic departments and 34 interdisciplinary graduate groups within 14 colleges and schools. The faculty delivers 8,000 courses in 350 degree programs with an average student-to-faculty ratio of 17-1, yet 73% of classes have fewer than 30 students.

As an indication of Berkeley’s excellence, a National Research Council analysis of U.S. universities concluded that UC Berkeley has the largest number of highly ranked graduate programs in the country. The analysis ranked doctoral programs and found that 48 out of the 52 Berkeley programs assessed ranked within the top 10 nationally. In addition, over the past decade (2000-2009), the National Science Foundation awarded more Graduate Research Fellowships to UC Berkeley students than to those of any other university (MIT was 2nd; Stanford 3rd; Harvard 4th) and a student survey found that 52% of Berkeley seniors have assisted faculty with research or creative projects.

The Berkeley campus benefits from eight museums with varying collections and archives of world renown. It’s library ranks as the number one public library system in North America; it includes a multitude of field stations and over 80 research centers conducting basic and applied research. Of particular note to the Department of Architecture are the U.S. Department of Energy’s Lawrence Berkeley National Laboratory (managed by UC Berkeley), the Doreen B. Townsend Center for the Humanities, the Berkeley Art Museum/Pacific Film Archives, the Center for New Media, the Arts Research Center, and the Energy and Resources Group. These represent a sampling of the units with which the Arch faculty has engaged in vital collaborations.

The University is a wellspring of innovation. Twenty-two Nobel Prize Laureates have been awarded to faculty on campus since 1901, when it was first awarded; eight Nobel Laureates are currently active on campus, including two added since the last review. Three hundred and fifty nine faculty members have received Guggenheim Fellowships and seventy-four have been Fulbright Scholars; members of the Architecture department have received both of these two prestigious awards in the last decade.

The tradition of innovation embraces unconventional ideas that ultimately influence the nation and the world. For example, in 1892 Berkeley faculty, along with John Muir, established the Sierra Club and was instrumental in arguing for and establishing the National Park System, described as “America’s Best Idea” in the Ken Burns TV series. A more recent game changing scientific discovery by Professor Jay Keasling, using the bio-manufacturing properties of yeast discovered by Berkeley’s recent Nobel Laureate, Randy Schekman, has led to the launch of an antimalarial drug, partially synthetic artemisinin. The compound was originally found in the sweet wormwood plant and is the only known cure for malaria. Its biological production promises to be a lifesaver for hundreds of millions of people in the developing world.

These examples of scientific innovation and influence on public policy and popular opinion are still active today. Berkeley’s students and graduates carry on the campus commitment to its public mission and public advocacy. Each year, approximately 10,000 UC Berkeley undergraduates engage in off-campus public service projects and programs including tutoring Bay Area children; working with anti-poverty organizations; and interning with local and state governmental agencies. Historically, UC Berkeley has produced more Peace Corps volunteers than any other university.

The university has long encouraged a college education regardless of a students’ wherewithal. As early as 1897, financial aid was available for the ‘needy and deserving.’ More than a century later, UC Berkeley remains committed to broad access for students from all strata of society. Berkeley educates more federal Pell Grant recipients, who come from families with incomes less than \$50,000, than all eight Ivy League universities combined. Nearly one third of our students receive Pell Grants and 39% of undergraduates receiving bachelor degrees are first generation college graduates. Berkeley’s impact on upward social mobility (and its benefits to society as a whole) was a reason that the 2009 Washington Monthly College Guide ranked UC Berkeley first in the nation, above any other universities, private or public

Out of step with the era of it’s founding, women were admitted to Berkeley without restriction or quota from its earliest years. Campus demographics now show approximately a 50-50 split between male and female when averaging both graduate and undergraduate enrollments. The ethnic breakdown includes approximately: 4% African American, 15% Chicano/Latino, 1% Native American, 40% Asian, 25% White, 13% International and 2% Declined to state.

INSTITUTIONAL MISSION

The general mission of the University of California Berkeley is teaching, research and public service within the evolving tradition of a land grant institution. The mission has been given greater definition with the following set of principles:

“These principles of community for the University of California, Berkeley, are rooted in our mission of teaching, research and public service. They reflect our passion for critical inquiry, debate, discovery and innovation, and our deep commitment to contributing to a better world. Every member of the UC Berkeley community has a role in sustaining a safe, caring and humane environment in which these values can thrive.

- We place honesty and integrity in our teaching, learning, research and administration at the highest level.
- We recognize the intrinsic relationship between diversity and excellence in all our endeavors.
- We affirm the dignity of all individuals and strive to uphold a just community in which discrimination and hate are not tolerated.
- We are committed to ensuring freedom of expression and dialogue that elicits the full spectrum of views held by our varied communities.
- We respect the differences as well as the commonalities that bring us together and call for civility and respect in our personal interactions.
- We believe that active participation and leadership in addressing the most pressing issues facing our local and global communities are central to our educational mission.

- We embrace open and equitable access to opportunities for learning and development as our obligation and goal.”

UC Berkeley’s “Principles of Community” statement was developed collaboratively by students, faculty, staff, and alumni, and issued by the Chancellor. Its intent is to serve as an affirmation of the intrinsic and unique value of each member of the UC Berkeley community and as a guide for our personal and collective behavior, both on campus and as we serve society.

These principles have served Berkeley well. The 2015 London Times Higher Education World University Rankings by Reputation placed **UC Berkeley 6th in the world**, behind Harvard, Cambridge, Oxford, MIT and Stanford. The Times’ more detailed ranking by specific measures of **faculty research and citations** placed **Berkeley 3rd** behind only Cal Tech and Harvard. The Department of Architecture benefits from and contributes to the culture and framework of **the world’s No. 1 public university**.

PROGRAM HISTORY

Limited instruction in architecture began at Berkeley in 1884 under the direction of Bernard Maybeck. In 1903, John Galen Howard was selected to be the supervising architect, charged with realizing the Campus Plan, chosen in the 1900 International Beaux Arts Competition sponsored by Phoebe Hearst. In the Beaux Arts tradition, Howard established an atelier next to his office. In 1906, this atelier was moved to a new building, the “Ark”, designed by Howard, and in 1913 the School of Architecture was formally established, later becoming a department in the College of Letters and Science. Up until the end of WWII the curriculum followed a Beaux Arts format with instruction by leading Bay Area architects, including, not only Maybeck and Howard, but also Arthur Brown, Willis Polk and Julia Morgan.

In recognition of architecture’s growing professional status and with a new ‘modernist agenda’, William Wurster was recruited from MIT in 1950 to become the new Dean of the School of Architecture. His appointment marks the beginning of a modified ‘Bauhaus curriculum’ and instruction by practicing architects developing what has been described as ‘Bay Area modernism’.

Wurster was a visionary about architecture’s role in creating an expanded and interdisciplinary design approach to the built environment and was instrumental in imagining a new college. In 1957, a formal proposal for a “College of Environmental Design” was made to the university and accepted in April 1959. It is **the first interdisciplinary college of its type in the country**, bringing together departments of **Architecture, Landscape Architecture/Environmental Planning and City and Regional Planning**. It is also the first college to have the word ‘**environment**’ in its name as a **coalescing concept**, remarkably prescient for its time given the global environmental challenges we currently face. In 1965, the college and the departments moved to a new building, the William and Catherine Bauer Wurster Hall, designed by a team headed by Joseph Esherick to house and facilitate the collaboration among departments.

At about the same time in 1964, the department chose to phase-out the five-year Bachelor of Architecture degree program and to replace it with a four-year, liberal arts based, Bachelor of Arts in Architecture, with a Master of Architecture degree as its professional degree. This M.Arch Program consists of three years of study for students with degrees in fields other than architecture with the possibility of one year of advanced standing for select students with an undergraduate degree in architecture. The determination of advanced standing for applicants is made by the M.Arch Committee at the time of admissions.

Between 2000-2003 an extensive renovation of Wurster Hall (\$32m) was undertaken to seismically upgrade the building under the leadership of Dean Fraker. The graduate programs were relocated to temporary Butler buildings, Hearst field Annex, conceived and constructed by the department in 9 months and the undergraduate programs relocated into Giannini Hall. As part of the process, architecture and landscape faculty were engaged in additional renovations (\$7m) to upgrade the facilities, matching new demands of studio instruction and the digital environment. During the same period 12 new faculty were

hired beginning a process of renewal, replacing faculty retirements. In the spring of 2003 Wurster Hall was reoccupied. The process of faculty, curriculum and facilities renewal continues in Architecture under the leadership of new Chair Tom Buresh and new Dean Jennifer Wolch.

FOUNDING PRINCIPLES

The architects and teachers that practice, teach, conduct research and service over a schools evolution create the essential identity and founding principles of the architecture program. From the very beginning with Bernard Maybeck, a founding principle of the program at Berkeley was that **architecture design should be taught by leading practicing architects**. This principle has been pursued through the many stages in the programs history until the present day. The second principle was that architecture education (and practice) should be **informed by a broad liberal arts education**. This principle was embodied in the famous Wurster “tea seminar” conducted at his home, where students had to present a paper relating the content of any other course from campus to architecture. It is imbedded in the courses and studios today and by the flexibility and freedom in selecting electives. The 3rd principle was **bringing research and design together**, to provide, “a synthesis of the fields that deal with the functional and aesthetic quality of our surroundings”. Wurster further summed it up by saying, “ We **design and write** and are written about”. Even though the department’s identity is the sum of all the teaching, research/creative production and service of each individual faculty, these founding principles have manifested themselves in specific themes and traditions that have become identified with the Department in the following areas:

- A commitment to the **primacy of design** as the essential and distinguishing mode of thought and practice that explores and develops new forms of spatial, material, social and environmental performance. This can be seen in the creative production of the faculty that has influenced the profession over the years, beginning with the Beaux Arts and Arts and Crafts work of Maybeck, to the mid-century modernism of Wurster and Ray Kappe, to the regional modernism of Esherick, Lyndon, Moore, Turnbull, Fernau and Solomon, to the millennial modernism of Saitowitz, Santos, Jennings, Fougerson, to the more recent work of Anderson, Choksombatchai, Chow, Davids and Iwamoto, to the most recent hires of Atwood, Calott and Real and including Chair Buresh and his partner, Danelle Guthrie. This tradition has been greatly enhanced by the endowed visiting chairs that bring renowned practitioners to teach in the M.Arch studios and by the tradition of hiring young emerging professionals as lecturers to teach in the studios.
- A **concern for process**, from design through fabrication and construction, has informed the work of designers and researchers from the Department’s inception –currently leading to the exploration of digital form generation, new materials, fabrication techniques (including digital), and an analysis of construction systems. The tradition began with the values of ‘arts and craft’, explored ‘general systems theory’, developed a ‘pattern language’ and forms of ‘community participation’, continues with the exploration of ‘diagrammatic operations’ and the exploration of parametric generation. It makes ‘process’ a part of the design imagination with the goal of enhancing design and performance.
- The Department has long been associated with the **social activism** of the sixties, leading to research and design activism which focuses on improving the quality of peoples’ everyday lives, recognizing the diversity of voices and needs from farm-worker housing to housing for the homeless to design for accessibility. The research and design in social factors and ethnography are seen as important forms of advocacy and a **catalyst for social change**.
- Unparalleled strengths in **building science** have focused on the performance of buildings through integrating the design of the building envelope and environmental systems with an emphasis on **empirical performance** of both energy and human satisfaction. This focus on empirical evaluation has led to groundbreaking research in studies of thermal comfort, dynamic facades, and innovative environmental control systems. The integration of building science and human response provides a robust perspective on how to provide measures of sustainability leading to innovative whole systems designs.
- The Department’s teaching of **architecture history has transformed the discipline** by insisting on a

more international and cross-cultural canon, teaching not only the formal/spatial qualities of buildings, but also the cultural, social and economic context and the technical processes, which enabled their construction. This tradition provides a more rich and complete range of precedents, from high art to everyday cultural landscapes, expanding students.

MISSION

The mission of the Department of Architecture is played out by faculty and students in the defining themes outlined above. The faculty articulated a more general mission in the following statement, approved in 2009:

“Our mission in the Master of Architecture program at Berkeley is to further the critical position of architecture within a larger cultural framework. We engage this mission through the integration of a rigorous professional education with other disciplinary pursuits. Thus we seek to advance and expand the concerns of the profession, even as we prepare our students to operate successfully within it.

It is important to us that our students ask questions as well as answer them. We are constantly seeking to improve our curriculum, such that research disciplines, design exploration, and cultural inquiry intersect in provocative ways. We want our students to be agile in their ability to adapt to changing professional requirements, but also cognizant of their own systems of values. We want them to be as willing to propose as to react, and open to the increasing rate of change in architecture’s ways and means. The increasingly complicated challenges that cross and intersect the arenas of ecology, politics, economy, technology and aesthetics demand this fluid approach to architectural education.

It is also part of our mission to make sure that students engage the other intellectual resources both within the College of Environmental Design, and across this great public research university campus. We encourage interaction with the PhD students within the department, with students and faculty in the departments of Landscape Architecture and City Planning, and across the university. Our relatively open curriculum allows students the opportunity to take classes outside the department. At the heart of our mission is the development of students’ awareness of built space in all its aesthetic dimensions and at a multiplicity of scales, its physical parameters in a larger context of environmental stewardship, and its consequences for social and political frameworks both locally and globally.”

ARCHITECTURE BENEFITS TO THE INSTITUTION

The comprehensive benefits to the Berkeley campus from Arch are detailed in the faculty CV’s. The depth and breadth is extensive and summarized in the following categories:

Teaching –

- In addition to the professional M.Arch, the Department offers one undergraduate major: the BA in Arch, a post-professional graduate degree: the one year Studio 1 M.Arch (soon to be receive a degree name change) and advanced degrees: the M.S. and Ph.D. in Architecture.
- The Department participates in the instruction of five minors: 1) Architecture, 2) Environmental Design and Urbanism, 3) History of the Built Environment, 4) Social and Cultural Factors in Environmental Design, 5) Sustainable Design. Students benefit from three minors in the College: 1) City Planning, 2) History and Theory of Landscape Architecture and Environmental Planning and 3) Geospatial Information Science and Technology.
- Faculty in the Department hold joint appointments in four other departments and co-teach 2 courses in other departments.
- By far the largest contribution to teaching on campus is the faculty participation on PhD Committees outside the Department. Sixteen faculty recently participated on 78 PhD committees in 19 departments outside of Architecture.

Research –

- The research and creative production of the faculty is detailed in Section 1.2.1 below. In many cases it involves collaboration with faculty outside the department. The departments include

among many: LBNL, Civil and Environmental Engineering, Material Science, Electrical Engineering and Computer Science, Energy and Resources Group, History, Sociology, New Media, LAEP and DCRP.

- A further indication of the faculty's contribution to the stature of the University are the faculty's participation in the application of 5 patents (Rael and Gutierrez) and the fact that the design faculty have won over 60 local, national and international design awards since 2010.

Service –

- The service by Arch faculty to the College and the Campus has been extensive with 17 faculty serving on 11 College committees including: 7 on the CED Executive Committee, 1 on the CED Strategic Planning Committee, 2 on the CED Sustainable Design Committee, 3 on the Master of Urban Design (MUD) Ex. Executive Committee, CED Summer Program and 2 On the PhD committee.
- At the Campus level 6 faculty have served on 6 different Faculty Senate Committees, where the major decisions of shared governance are made.
- In addition, 25 faculty have served on 23 other University Committees including: Committee on Research, Campus Ad Hoc Review Committees, Committee on Committees, Chancellor's Advisory Committee on the Creative Arts, Executive Committee - Institute for East Asian Studies, Executive Committee - Center for Japanese Studies, Council of Undergraduate Deans, Chancellor's Advisory Committee, Chancellors Advisory Committee on the Fine Arts, Academic Advisory Committee - BAM/PFA, Executive Committee - Berkeley Center for New Media, Berkeley Energy & Climate Institute (BECI) Executive Committee, Arts Research Center, Joint UCB-LBNL Richmond Bay Campus Sustainability Committee and Campus Design Review Committee.
- Four faculty have or are serving as Chairs of other departments: Chair, Center for Jewish Studies: Stoner (2013-14), Chair, Energy Resources Group: Fraker (AY 13/14, 14/15 and 15/16), Chair, Center for Middle Eastern Studies: Al Sayyad (1996 – 2014), Chair, Center for Japanese Studies (w/in Institute of East Asian Studies): Buntrock 2014-16.

ARCHITECTURE BENEFITS FROM THE INSTITUTION

The most important benefit from the institution is the **collaboration with world-class faculty** in both teaching and research as outlined above. While the Arch faculty brings the value of 'design thinking and methods' to the collaborative efforts, the campus faculty bring the core theories and methods from their disciplinary perspectives, those of science, engineering, arts, humanities and social science, reciprocating and enriching the collaborations.

Beyond the teaching and research collaborations, the College and Campus provide a **rich array of centers, institutes and organizations** that provide staff support, resources, facilities and supportive agenda, enhancing the architectural goals/objectives and mission of the Arch faculty and students.

Within the College, the **Environmental Design Library** is a primary resource for students and faculty. It is funded and operated by the University Library system as a branch library and is one of the finest in North America. In addition, there are two organized research centers (ORU's), the **Center for Environmental Design Research** (CEDR) and the **Institute for Urban and Regional Development** (IURD). These units provide consolidated staff support to manage faculty research grants and contracts. Within CEDR the **Center for the Built Environment** (CBE) is a university/industry NSF center, one of two in the country, funded in part by 30+ industry partners. It has sponsored collaborative research and conferences with industry and faculty from business, engineering, computer science and Lawrence Berkeley National Lab (LBNL) and produced over 100 reports and papers on building performance. Further support for faculty and student research and scholarship is provided by the **Visual Resources Library** and the **Environmental Design Archives** - with one of the finest collections of original drawings and documents from renowned architects, landscape architects and planners in North America. Finally, the College provides funding support and staff for the **Shop** and the **Digital Fabrication Lab**, both essential in the physical modeling projects of students.

The Campus provides an even broader range of organizations that support the research and creative production of architecture faculty and students. The **Berkeley Art Museum/Pacific Film Archives** (BAM/PFA – the top university museum and film archive in the country) has been a venue for collaborative exhibitions, symposia and panel discussions organized jointly by curators and Arch faculty. The opening of the new museum (by Diller Scofidio and Renfro) in 2016 will feature an exhibition exploring the multiple contributions and value of architecture in contemporary culture with critical input from Arch faculty (de Monchaux and Fraker). The **Townsend Center for the Humanities**, the **Center for New Media**, the **Arts Research Center** have supported collaborative conferences and symposia, jointly sponsored lectures and faculty and student fellowships. The **Botanical Garden**, a living museum of 13,000 plants from around the globe, has been the site and supporter of an art/architecture installation exploring materials and perception (Real). The NSF funded, world renowned **Lawrence Berkeley National Lab** (LBNL) provides important funding for graduate students in the building sciences and collaborates with faculty in CBE on multiple research contracts (Arens, Brager, Caldas, Schiavon). Finally, **ORU's in the College of Engineering** provide support and collaboration with faculty in architecture and building science related to seismic design, structures, new materials, and innovative, integrated, whole-systems building technologies (Black, Caldas, Gutierrez, Schiavon, Schleicher).

The professional degree programs in the Department of Architecture exist in a College and Campus context that has supported broad, deep and reciprocal collaborations. The mutual benefits have contributed to the success of Arch faculty and students and to the campus as a whole.

HOLISTIC DEVELOPMENT

Providing a solid liberal arts education as the basis for understanding architecture's role in broader cultural production has been a founding principle of the Department since the creation of the college in 1959 (see I.1.1. b) above). It is one of the reasons in 1964 the Department changed its professional degree programs to the M.Arch. The 4+2/3 was designed specifically to give a broader educational base to architecture students. The Department's program provides a solid 2-year lower division liberal arts introduction to the 2-year upper division major in Architecture, followed by the 2-3 year graduate M.Arch professional degree. The students in the Department's professional curriculum are therefore well grounded in the liberal arts.

Within the M.Arch Program there is ample opportunity to develop a holistic, broadly based understanding of the discipline and its place in society. First, there are the diverse social, economic, ethnic and esthetic points of view introduced and interrogated in Arch 270 – History of Modern Architecture and Arch 230 – Contemporary Architectural Theory. These courses are required in the first year of the M.Arch Program and help shape the research component in many studio design projects. Second, a deep understanding of architecture's agency and limits is an essential component to Thesis Seminar (Arch 204A) and Thesis Studio (Arch 204B). Further, a liberal arts perspective is practiced through the thesis process itself where each student is required to have a minimum of two faculty advisors who often deliver diverse viewpoints and expertise. Students are encouraged to take full advantage of the extraordinary array of department, campus and college electives to enrich their last three semesters.

I.1.2 Learning Culture

Coursework in the M.Arch Program spans lecture, seminar, studio, workshop and colloquia formats. We feel strongly that a range of course types best enables students with differing abilities to succeed. Historically and currently students attend to subjects of each with a uniformity of interest and focus unlike unbalanced effort witnessed in some schools of architecture. Studios in the master's program consist of 5 credit hours and meet for two days a week for 8 total contact hours in comparison to three days a week for 12-15 total contact hours in many other schools. Similarly, M.Arch students usually enroll in a total 3+ courses per semester which allows for additional time to commit to non-studio courses. A typical semester finds a student enrolled in a 5-unit studio, two 3-unit lecture/seminar/workshop classes and a 1-unit colloquium for a total of 12 units. Courses in the first year of the 3-year program are closely linked and coordinated while course in the 2nd year build on prior subjects but operate more independently. The integrated studio in the 3rd year revisits technical and professional subjects of the prior two years while

thesis asks the individual student to coalesce prior learning opportunities into a comprehensive research and design project.

The Department embraces its responsibility to encourage in its students the values of time management, general health and wellbeing, the balance of work-school and life, and the development of professional behavior. Its commitment to this responsibility is detailed in our *Studio Culture Policy* (see Section 4 – Supplemental Material).

The *Studio Culture Policy* is reviewed with students during orientation at the beginning of every year. The primary message of overall healthy practices and time management skills are reiterated at the beginning of studios, each semester. By these means students and faculty are made aware of the Department's commitment to these values multiple times a year. The policy also comes to bear at the end of semesters when students are required to hand in their projects the night before reviews. This gives the students a full night's sleep and greatly improves the professionalism of student presentations and their learning experience. In addition, the Department has two Graduate Student Staff Advisors who are available to students for counseling on any issues, but who also are fully versed in the policies and charged with encouraging students to develop the values.

We have on two occasions entered into lengthy discussions with faculty and students about department climate and wellbeing over the last four years. The first was prompted by underrepresented minority students and their desire for a stronger and more collective sense of community and the later by the passing of a beloved student with medical challenges. In neither case did the discussions produce a revision of the studio culture document but did lead to faculty and students redoubling their efforts to promote a safe, effective and healthy educational environment.

Every semester the Department reminds faculty to be on the lookout for students who may be having difficulty in their academic performance and in maintaining the values expressed in the policy. The faculty is instructed to notify the Department in writing and to encourage any students to seek help from Amy Honigman, a psychologist with Counseling and Psychological Services at the University Tang Center, who maintains satellite services in Wurster Hall.

Just a year ago, the College initiated a *CED Exit Survey* (see Section 4 – Supplemental Material for the complete survey) for all graduate and undergraduate students. It is designed to assist the three departments in the continuous assessment and improvement of their degree programs. It is in its second iteration and has been developed with the input from department chairs, faculty, students and staff. The survey has specific questions that provide information related directly to the values encouraged in the *Studio Culture Policy* of the Department. The survey provides important feedback to the M.Arch Committee (the committee charged with the continuous improvement of the professional degree programs) and to the Graduate Student Staff Advisors on performance related to the Department's learning culture and specifically the *Studio Culture Policy*. This will enable the Department to assess its learning culture on an annual basis and provide valuable input to the long-range planning process and any changes in policy.

The Department of Architecture encourages a healthy and productive culture of learning every year, both inside and outside of the classroom through a number of activities and initiatives, including field trips, site visits, the public lecture series and participation in student groups.

M.Arch students travel with ARCH 200B in their first Spring semester. Recent trips include Mexico City, Netherlands, Spain, Korea, Germany and France. Graduate students participating in the Vertical Cities Asia International Design competition, to design a portion of a city for 100,000 people in one square kilometer, have travelled to Singapore, India, Viet Nam, Korea and China. Individual courses also take sponsored trips. Recently, Professor René Davids students travelled to Norway to conduct a workshop with students from NTNU-Trondheim and Professor Dana Buntrock oversaw the winning team in the 4th annual LIXIL competition in Hokkaido, Japan.

Our lecture series brings a number of diverse speakers from the professional and academic worlds. The lecture series is intended as a meeting place and catalyst for discussion through out the college, and we offer the ARCH207A Architecture Lecture Colloquium as a structured discussion around the series. Recent speakers include, Anna Herringer, Alice Friedman, Vishaan Chakrabarti, Kengo Kuma, Sheila Kennedy and many others.

For a complete list of Architecture lectures since the last visit, please see the following DropBox link: https://www.dropbox.com/s/sjtanxl7k3wzr9e/Sect.4_Arch%20Lecture%20Archive_UC%20Berkeley.docx?dl=0

I.1.3 Social Equity

CED and the Department of Architecture are committed to its ongoing mission of introducing students to a practice of environmental design that respects difference, and confronts injustice and inequity in the making of buildings, communities, and urban landscapes.

The *Diversity Platforms Committee*, led by Prof. of Architecture Greig Crysler, enhances the cultural life of the College by developing co-curricular programs including cultural events, student-led courses, public interest design workshops and charrettes to introduce students to ways that social difference and identity shape and are shaped by, the built environment.

This committee seeks to engage faculty, students, staff and alumni in the critical examination of the intersection of race and ethnicity, gender and sexual orientation, power and privilege, poverty and inequality, restorative justice, and other aspects of human identity and relations within the built environment. The committee will sponsor an annual lecture event, and distribute a call for programs from the CED Community to help fund the development of events and activities such as:

- Lectures by notable scholars
- Guest speakers in courses/studios
- Arcus lecture series and colloquium
- Film screenings
- Exhibitions
- Workshops
- Training in critical pedagogy, facilitation or course enhancement
- Outreach (K-12, Community Colleges, local organizations)
- Public Interest Charrettes
- Student-led seminars, studios and/or DeCal courses
- Internship programs

At the university level, Embracing Diversity, Equal Employment Opportunity (EEO), and Affirmative Action (AA) are three components of UC Berkeley's work toward creating Equity in the Workplace for its faculty, staff and students. Equity in the Workplace is characterized by:

- A diverse productive workforce
- A more equitable and accessible work environment
- An inclusive environment where all employees are valued
- A work environment free from discrimination
- A level playing field for employee success
-

These policies are provided in Sect. 4, Supplemental Information.

With its long commitment to equity and inclusion, the Campus provides financial assistance to graduate students who meet the campus diversity requirement and demonstrate financial need through the Graduate Opportunity Program – GOP Master’s Fellowships (See Section 4 – Supplemental Material for the detailed description). The funding support consists of a \$10,000 stipend (\$5,000 per semester) and in-state fees for one academic year. They can be supplemented from departmental or allocated Block Grant funds. These are used as recruitment awards and the Department has received approximately 6 per year. In addition, the College has provided Leadership Fellowships of \$10,000 per year for applicants that have demonstrated leadership qualities. Recently, the Department has received approximately 6 of these per year.

Similar to the Campus as a whole, the Department has its share of Pell Grant recipients (22% in 2013-2014, 21.5% campus-wide) and first generation college graduates (40% in 2014-15 and 32% campus-wide). The male/female split of students is similar to the Campus at approximately 45/55 and reversed with faculty at 55/45.

Over the last 5 years, the Chair has used the income from the Eva Li Endowed Chair to hire under represented minority faculty. These hires include the following current faculty: Lecturer Darell Fields and Visiting Professor Mitchell Squire (on three occasions), and recently, Lecturer Liz Ogbu. The funds have also been used to support public lectures and exhibitions by under-represented architects. The Department has sent faculty and student representatives to participate in conferences of the National Organization of Minority Architects (NOMA) to help identify potential practitioner/teachers and recruit student applicants.

In order to encourage applications by interested and qualified minority students, the Department has also used available funds to send faculty, students and staff to present at Historically Black Colleges and Universities (HBCU’s) Howard University and the University of the District of Columbia. In addition, students are regularly receive funding to attend the Design Futures Conferences and participate in discussions and workshops related to social activism, equity and diversity. Applications by minority students currently represent 7.6% of the applicant pool.

As part of Berkeley’s tradition of social equity and inclusion, the College has the Arcus Endowment and Arcus Endowed Chair that explores the relationship between lesbian, gay, bisexual, transgender and queer (LGBTQ) issues and the built environment. It promotes environmental design that: “respects difference, challenges hetero-normative assumptions, and confronts injustice and inequity in the making of buildings, communities, and metropolitan regions.”

The Chair has provided leadership at the center of initiatives to promote social equity and inclusion. He has engaged the M.Arch Committee and a special task force of students to help shape these initiatives. The plans have been brought to Faculty Meetings for further discussion and advice. In addition the Chair has consulted with prominent minority practitioners and emeritus minority faculty who have supported the initiatives described above. By the numbers, the Department compares favorably to the Campus, especially in the category of Chicano/Latino students. On the other hand, representation in African American students and faculty lags behind the US population averages (13.2%) and the Department wants to close this gap in its long-range planning.

The department is committed to a faculty and student body that seeks disciplinary excellence, innovative research and social equity.

Faculty searches for ladder rank faculty require approval from the college and the university. Architecture faculty members annually discuss the need for new faculty and create a ranked list of based on perceived need. The department requested approval for a search for a design faculty member in 2015-16 yet that request was not approved.

Since the last NAAB visit in 2010 the following ladder ranked faculty have joined or will join the department:

- Professor and Chair Tom Buresh (Design)
- Assistant Professor Kyle Steinfeld (Design and Computing)
- Assistant Professor Stefano Schiavon (Building Science)
- Professor Luisa Caldas (Building Science)
- Assistant Professor Andrew Atwood (Design and Representation)
- Associate Professor Chris Calott (Design, Development and Urbanism)
- Assistant Professor Simon Schiavon (Structures)
- Assistant Professor Neyran Turan (Design and Theory)

During that same time the following ladder ranked faculty have retired:

- Yehuda Kalay (Design Computation)
- Mary Comerio (Design and Construction)
- Cris Benton (Building Science)
- Richard Fernau (Design and Theory)
- Paul Groth (History and Theory)

Our search descriptions include the following language-

"The department seeks candidates whose research, teaching, or service has prepared them to contribute to our commitment to diversity and inclusion in higher education."

"The department is also interested in individuals who may have had non-traditional career paths or who may have taken time off for family reasons (e.g., children, disabled, or elderly), or who have achieved excellence in careers outside academe (e.g., in professional or industry service)."

"The University is responsive to the needs of dual career couples."

The department routinely posts faculty searches in the following venues:

ACSA News
ARCHINECT
Academic Keys
AIA: American Institute of Architects
Chronicle for Higher Education
Women in Higher Education (WIHE)
National Organization of Minority Architects
AP Recruit
Northern California Higher Education Recruitment Consortium
Higher Ed Jobs
America's Job Exchange
AJE Veterans Exchange
AJE Disability Exchange
AJE State Exchange for California
Disabled Person
Diversity Working
Job Opportunities for Disabled American Veterans
Hero 2 Hired
Indeed
Simply Hired
Beyond
The California State Workforce Site
Bay Area Career One Stop Center Representatives
Community Outreach Organizations

The department acknowledges that student recruitment often occurs via the internet in addition to word of mouth. Faculty members are conscious about inviting visiting critics from schools where we would like to

attract students. Likewise, the college has recently redesigned our website foregrounding provocative and educational events as well as the work of faculty and students. The M.Arch Program receives approximately 900 applications a year. We accept about 120 students with a yield that averages about 50%. We sponsor an open house event for interested graduate applicants every semester. The open house features faculty presentations of their research and teaching, student presentations of their studio work, a question and answer panel with faculty and another with students and a tour of Wurster Hall including the library, various labs, classrooms and studios. The spring semester event is augmented by a reception sponsored by the CED Alumni of Color. The general public including interested applicants are invited to attend the CED Circus where alumni interact with students in formal and informal ways in venues that foreground student work. In an effort to increase diversity in the student body, the department again plans to send faculty, students and staff to the national convention of NOMA to make our program more visible to potential students and faculty. Likewise, we will continue to fund student participation in the Design Futures (a Public Interest Design (PID) Student Leadership Forum) to be located in the San Francisco Bay Area next year.

I.1.4 Defining Perspectives

A. COLLABORATION AND LEADERSHIP

Leadership and collaboration begin in the Department with the quality and diversity of the students admitted. The admissions process is highly selective, out of 744 applicants, 56 letters of acceptance, in order to enroll 32. Since the Department can choose among applicants with top GPA's, GRE scores and design portfolios, reviewers look for special indicators of leadership, overcoming difficulties, and concern for social equity, the environment and the public good. Once in the program, students are given opportunities to hone and develop their skills of collaboration and leadership across the full curriculum, from course work to studios.

In the M.Arch course work sequence, collaboration begins the first year in A270 – History of Modern Architecture, where students form teams to conduct their case studies and in the process have to reconcile their different perspectives and experience in analyzing and interpreting the projects. The discourse continues in A207A – Arch Lecture Series Colloquium where students have to discuss the work presented in the Department's public lecture series and their different reactions to the design philosophies presented. Understanding and reconciling cultural, ethnographic and gender differences continues in A230 – Advanced Architectural Design Theory and Criticism and A207A – Architecture Research Colloquium. During the second year, teamwork is central to A201 Architecture and Urbanism, A150 – Introduction to Structures and A260 – Introduction to Construction. Students form teams to design and build different structures and to prepare field reports on construction assemblies. The work is presented for review by outside professional consultants. The traditional roles of the architect as team leader and project manager are covered in A207D – The Cultures of Practice and new forms of practice and leadership are explored in A207C – Professional Practice Colloquium when students visit offices in the Bay Area that are experimenting with and developing new models.

Collaboration and leadership opportunities are also structured throughout the M.Arch studio sequence as students are asked to alternate between individual design explorations and teamwork. It begins the first year in A200B with student teams conducting research and analysis of precedent buildings that demonstrate outstanding energy and environmental performance as a basis for their design explorations. It continues in A201 as students are asked to explore the relationship between urbanism, architecture and the body through team projects. Many of the Graduate Option Studios, A202, involve extensive teamwork. For the last 5 years the Department has assigned an A202 studio to participate in the *Vertical Cities Asia Competition*, organized by the National University of Singapore. The purpose is to develop and explore high-density urban design proposals in different Asian cities. The student teams have been interdisciplinary, including students from Architecture, Landscape Architecture, City and Regional Planning and in some cases from business and engineering. The teams travel to visit and analyze the sites and meet with local planning officials and communities. The studios also engage other college faculty and outside professionals on relevant issues and topics requiring specific technical or design

expertise. Other Graduate Option Studios have used teamwork to tackle exciting and emergent challenges. Sheila Kennedy's studio (S2015 Berkeley/Rupp Prize recipient) explored the challenge of small tactical architecture or infrastructure designs for 3rd world emerging communities and the Michael Bell's studio (this years Friedman Visiting Professor recipient) used teams to explore different scenarios for a "Near-Infrastructural Architecture" related to housing adjacent to the Apple campus in Cupertino.

Team projects are integral to student assignments in the course work of A201 Architecture and Urbanism Design Studio, A240 – Advanced Study of Energy and Environment, A260 – Construction and A150 – Structures. Throughout the M.Arch Program, leadership skills are developed, practiced and critiqued in the studio final reviews where students are expected to make a compelling case for their design proposals.

Select M.Arch students apply for and are appointed as Graduate Student Instructors (GSI) whereby they assist faculty members in teaching the larger and required undergraduate courses in design, representation, history/theory/society as well as building science and technology. These teaching opportunities are a hallmark of the Berkeley experience and oftentimes provide impetus for our best students to seek careers as educators.

A partial list of organizations within the college from which M.Arch students are encouraged to participate are as follows: AIAS (American Institute of Architects Student Group), APX (Alpha Rho Chi), AAAEA (Arab American Association of Engineers and Architects), BANBE (Berkeley African Network for the Built Environment), CED Graduate Student Council, CED International Students, CED SOC (CED Students of Color), CED Wellness Affairs, CASA (Chicano@/Latin@ Architecture Student Association), Cal Construction, Design for America, Global Architecture Brigades, Pilipino Association of Scientists, Architects, and Engineers (PASAE) and Triangle Fraternity. Although graduate students are welcome to join these groups they are historically populated largely by undergraduate students. The exception to this would be Berkeley's Architecture Lobby and Room 1000, the publication produced by students from the architecture department.

Graduate students also rotate on and off the CED Executive Committee sharing that responsibility with students from the other CED departments.

B. DESIGN

The Department's commitment to the primacy of design can be seen in the work of the studios. The faculty seek to provide a balance of design experiences that allow students to develop both **pragmatically generated** designs, but also design explorations that are **highly speculative**, usually with a focus on a specific theme. Students are introduced to the many classic sources of architectural inspiration including the analysis of precedents, the site, the program, building tectonics and environmental performance. The design studios emphasize an understanding of architecture that conceives of a building as more than an object to be described, but as a spatial construct that performs - not just what it is, but what it does and how it works. The **concept of performance** is an integrating idea across sources of inspiration. It asks the questions: how does a building proposition engage the site, how does it enable or foreground social performance, what is its formal/spatial generative idea and performance, its structural and material performance and how are these performative propositions integrated into a poetic whole?

The students' development of their designs can be seen in the generating diagrams that accompany more typical representative plans, sections, elevations, perspectives and large scale section cuts. These diagrams typically take the form of generative diagrams or conceptual models that reveal an iterative process exploring the formal/spatial proposition. They also usually include diagrams of the program distribution, structure system and the environmental performance of the envelope. The studio pedagogy is committed to learning from exemplary precedents. Most studios begin with a research phase involving careful research into the principles of a specific topic and then a 'case study' approach to precedents that

illustrate the principles. The studio pedagogy follows an iterative process that alters the scales of exploration and thematic foci to encourage students to see their designs in new light. The studio pedagogies are organized into a sequence of assignments with specific requirements for each step in the process. In the end students, are asked to present a compelling argument for their design proposals, explaining the generative concepts in pragmatic, speculative and theoretical terms.

C. PROFESSIONAL OPPORTUNITY

The Department's commitment to the importance of professional experience as a means to motivate and intensify students' architectural education begins with whom we admit to the program. We advise the students in our undergraduate program to take time to work before applying to graduate school and we look for professional experience in students applying from outside the Department. As a result many of our incoming students come with professional experience. The Department provides additional opportunity through A108 – Professional Internship that provides summer internships for students in Bay Area firms. Approximately 20/25 students take this opportunity each year.

The legal and ethical basis of practice, the requirements for registration and the Intern Development Program (IDP) are covered in A207D – The Cultures of Practice. In addition, once every year, professional representatives from NCARB are invited to the Department to present the IDP program and encourage early enrollment. It is a meeting for all architecture students and results in a few early enrollments by students looking to register credits earned for their Graduate Student Instructor (GSI) appointments and summer employment.

D. STEWARDSHIP OF THE ENVIRONMENT

Stewardship of the environment has been a core value of the Department since the founding of the College, captured in its name. An unparalleled faculty in building science delivers the teaching and conducts groundbreaking research through the Center for the Built Environment (Arens, Brager, Caldas, Schiavon). The teaching and research of the building science faculty is supported by design faculty in general, including those who have been pioneers in the field (Anderson, Fraker, Ubbelohde, Gutierrez, Rael and others).

The fundamentals of building environmental performance for M.Arch students are introduced in A240. These include the basics of human comfort, climate responsive design, passive solar, day lighting and natural ventilation. It involves the understanding of the building envelope as a dynamic environmental filter that interacts with a building's HVAC systems. An interest in environmental performance can be pursued further with advanced electives: A243 Natural Ventilation & Cooling, A245 Daylighting. The course work is reinforced in studios, A200B and A201, where environmental performance and issues of sustainability are a focus. The environmental performance of buildings is reinforced yet again in A203- the Integrated Design Studio. Given the strengths of the faculty in this area and the urgency of global environmental challenges, environmental issues and sustainability are regularly the subject of many thesis proposals.

It should be noted that the research and consulting of faculty in this area are broad and deep, representing multiple modes of inquiry and engagement with the profession. For example, the research conducted through the Center for the Built Environment is done in consultation with industry and the profession, targeting critical issues of importance to practice. Professor Ubbelohde conducts much of her applied research through her consulting firm, Loisos/Ubbelohde. The firm consults with leading architectural offices in analyzing and modeling alternative designs for award winning, LEED Platinum, projects. Gutierrez' NSF funded research is more speculative, involving collaboration with faculty in material science. It investigates the potential of activating the molecular behavior of materials and assemblies in delivering integrated whole-systems environmental performance. These research experiences bring unusual depth to course work and studios, demonstrating the value of a founding principle to bring research and design together.

E. COMMUNITY AND SOCIAL RESPONSIBILITY

This perspective is a hallmark of the Department's identity going back to the founding of the College. Currently, four faculty members continue to conduct important groundbreaking research in this area (Cranz, Crawford, Crysler and Cenzatti). The tradition begun, most notably with Christopher Alexander in *Notes on the Synthesis of Form* and *A Pattern Language* with Sarah Ishikawa, continues, but has evolved in Cranz's course, A110ac – the Social and Cultural Basis of Design. It is the subject of specific modules in both the required history (A270) and theory (A230) courses. In addition, Martin has created a module within the required pro-practice course, A207D. In all four of the venues students are made aware of critical cultural and ethnographic differences in the perception and understanding of the environment and in their roles in shaping methodologies and understanding the findings in Post Occupancy Evaluations (POE's).

Just as importantly, the tradition and values of social responsibility continue to be imbedded in the studio culture. They can be seen most notably in the subject of many of the A202, Graduate Option Studios. For example, most recently, the Michael Bell (Friedman Visiting Professor) studio tackled the problem of creating affordable housing and a more complete community in Cupertino related to the Apple Campus and the Sheila Kennedy (Berkeley/Rupp Prize Recipient) studio tackled the challenge of creating tactical architecture or infrastructure pieces that would dramatically improve the everyday lives of people in developing countries. These examples are not alone. The theme of community and social responsibility can be found as a subject throughout the 'option studios' over the course of the last five years. In addition every spring A200B travels to a different country to analyze exemplary local modern architecture while experiencing and interacting with the local community within which their project is situated. Other A202's (Davids - Santiago, Crawford – China and Calott - Singapore) also travel abroad to experience and analyze the local culture as a basis for their designs. The Department's tradition of community and social responsibility can be found in the work of graduates who have been instrumental in the movement for a 'public architecture' and 'storefront architecture' to provide design services for those who cannot afford it.

The Five Perspectives are powerfully **aligned with the founding traditions** of the Department, outlined in I.1.1b above. As such, they have seamlessly been part the framework that has informed the learning culture, curriculum review and development, self-evaluation and long-range planning discussed below.

I.1.5 Long-Range Planning

Architecture faculty members and conversations were central to the college-wide strategic planning process conducted in 2013-14 and implemented the following year. (see CED Strategic Plan in Section 4 – Supplemental Material). This year long exercise produced six strategic initiatives focused on perceived strengths and challenges in the college as follows: Research Impact, Design and Technology Lab, Diversity Platforms, Curriculum Crossroads, Flex Studios and Networked Spaces.

Research Impact underscored the need for more funding for individual faculty members and groups. Design and Technology Lab focuses on the critical need for space and equipment for faculty to pursue their research. Diversity Platforms aims at seeking, supporting and engaging difference among faculty, students and staff with regard to teaching and learning. Curriculum Crossroads examines the potential of interdisciplinary education- the long-term promise of the College of Environmental Design. Flex Studios and Networked Spaces underline the need for well-equipped and healthy teaching environments as well as spaces for more informal collaboration and sharing between students in all departments. While all of these initiatives are important and fully supported by the architecture department, Research Impact, Design and Technology Lab, Flex Studios and Networked Spaces initiatives were seen as the most critical. It is no surprise that each of these addressed a rapidly changing environment for faculty research/creative work or an aging building with a need for updated spaces and equipment. We are pleased that many of these building/equipment issues are already underway with more to come as funding is secured.

Long-range planning has been conducted within the self-assessment process described in I.1.6 below. It has been curtailed by severe budget constraints over the last 5 years when the Department has had to be resourceful and creative in maintaining excellence.

The Department develops its **objectives for student learning through course descriptions and syllabi**. The M.Arch Committee periodically measures these objectives against the educational goals imbedded in the mission statement and the subject areas delineated by the founding traditions in design and design process, history and theory, technical building performance, professional opportunities and social responsibility. Further, **data from course evaluations** are used to measure not only the performance of the faculty, but also the effectiveness of the course itself, in content and relevance. The recently instituted **CED Student Exit Survey** will provide additional new data on learning objectives and performance.

While seeking to strengthen the architecture core, the Department has contributed to the development of the undergraduate major, the BA in Sustainable Environmental Design and a potential future program in Real Estate Development, Architecture and Urbanism through the participation of the recent new hire in the Lalanne Chair of the same name.

As mentioned above, there is a powerful alignment between the 'Five Perspectives' and the Department's founding principles and traditions. This is fortuitous because it means the 'Five Perspectives' have been part of the Department's planning process inadvertently throughout the last 5-year effort, even though they have only recently been made part of the accreditation process. It also means that they can be made more specifically and seamlessly part of the process going forward.

I.1.6.A Program Self-Assessment

Self-assessment began 5 years ago with the unprecedented hiring of a new chair from outside the Department. The new chair was given the mandate to lead a complete re-assessment of the curriculum, the focus and pedagogy of the program and the mix of faculty. The process was and continues to be conducted within the framework of multiple departmental processes and procedures as follows:

- The first is the charge to the **M.Arch Committee** to review the structure, content and staffing of the curriculum and to make recommendations to the faculty for changes in structure, emphasis, new courses and new faculty FTE. Convened and appointed by the Chair, the M.Arch Committee consists of 6 faculty and 1 staff. These recommendations are brought to Faculty Meetings for discussion and decisions under the leadership of the Chair. To date most curricular revisions in the M.Arch program have been incremental in nature having to do with sequence in the program or particular interests or expertise the faculty member(s). Three exceptions to this are the increased organization and weight given to the M.Arch Thesis sequence (more faculty involvement and structure, the creation of an urbanism focus to the A201 studio in response to perceived changes in the discipline and a renewed focus on representation initiated by new faculty hires.
- The second is the **Campus FTE process** itself. Each year the Campus requests proposals for new FTE from all departments in the context of a target size, determined by the department's teaching loads and student/faculty ratio. The process requires a careful justification of the position in relation to the target size and the mission and teaching needs of the department. It involves a detailed job description and advertisement. The decision on what FTE positions to request, the justification, job description and advertisement are all brought to Faculty Meetings. Discussion and decisions are made in the context of recommendations from the M.Arch Committee within the mission and traditions of the Department.
- The third is the **Campus Promotion and Tenure (P&T) process**. The process is among the most thorough and consultative evaluations of faculty performance in the country. It has been

cited as one of the main reasons for Berkeley's excellence. Faculty are evaluated at least every three years. It is a 'ladder rank system' with salary ranges at each step on the ladder. Faculty cannot be promoted to a new step, in any rank including full professors, without demonstrating distinction and productivity in teaching, research/creative production and service. It is a multi-tiered process: each faculty member prepares case material and an updated CV, a report and recommendation is prepared by peer faculty in the department which is reviewed for comments by the faculty member, the Chair adds his/her assessment and recommendation, it then goes to the Dean for further comment and recommendation, it is then sent to the Campus 'Budget Committee' for review by faculty outside the department with a recommendation to the Provost, who makes the final decision. During the process **student evaluations** are taken very seriously in assessing teaching performance. It has produced a culture of unparalleled productivity and gives the Chair detailed knowledge about the performance and productivity of each faculty member.

- The fourth is feedback from professional alumni who participate in the College organized **CED Circus**. Each year, prominent alumni from each department are invited back to review student work. Students make presentations to alumni as if it was a typical faculty review. Alumni give feedback directly to students, as well as award prizes to their choice of the best work. More importantly, the alumni give direct feedback to the Chairs on the content and quality of the curriculum.
- The fifth is a recently instituted **CED Student Exit Survey** initiated by the College to help departments in their continuing assessment and improvements. To see the range a types of feedback see a copy of the survey included in Section 4 – Supplemental Material below.
- Finally, the Campus conducts **external reviews** of every department on a regular basis, approximately every 7-10 years. It is conducted by the Campus, Program Review Oversight Committee (PROC). Each department prepares an Academic Program Report and is visited by an External Review Committee that prepares an assessment report. The report is reviewed by PROC and specific recommendations are made to each department for improvement.

The results of the Department self-assessment process are reported in I.1.6.B below. The efforts have been curtailed over the past 5 years by difficult budget constraints. Nonetheless, they involve curriculum changes, revised course sequencing, new courses, new faculty and facilities improvements through the creative use of existing resources. The process has also established clear goals for the future.

I.1.6.B Curricular Assessment and Development

Course offerings are primarily shaped by a combination of faculty expertise/research interests, anticipated changes in the discipline and the needs of the profession as outlined by this and other review processes. Of these perhaps the first is understood as the most critical as faculty searches are the direct result of multiple conversations about what is next or what is missing with regard to our collective abilities and interests.

Curricular assessment and development is addressed in four distinct yet critical ways.

First, students evaluate, in detail, every course that they take. This evaluation asks for students' input regarding 21 specific questions with particular focus on the effectiveness of the instructor and course content. The back of the evaluation provides space for written comments. At the end of each semester the evaluations are compiled and scores are averaged for each class and instructor. The evaluations and the summary are then made available for the individual faculty member and to the chair of the department. The chair uses these evaluations to understand the effectiveness of both the instructor and the course from the students' point of view. In the event that a course's evaluation signals a significant deficiency in either content or teaching effectiveness the chair meets with the individual faculty member to discuss possible modifications. On rare occasions faculty members are encouraged to enlist the aid of UCB's Center for Teaching and Learning to improve their teaching skills. Department faculty are on the whole exceptional teachers who care deeply about their subject matter and are attentive to student

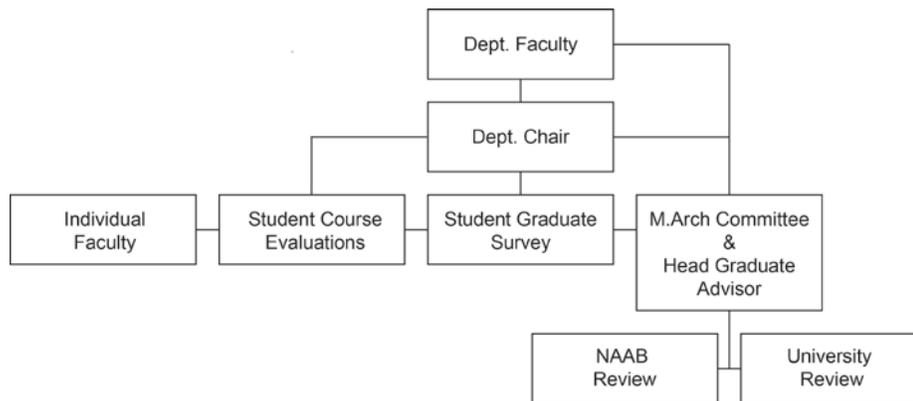
concerns. As such they oftentimes inform the chair of changes they plan to make in response to student concerns. The evaluations are routinely cited in the promotion and merit reviews of ladder rank faculty members (every 2-3 years) and the rehiring process for part-time lecturers.

Second, M.Arch students now take a survey upon graduation from the department. This survey measures satisfaction of different aspects of the students' experience at Berkeley. While still in its infancy the survey assists in determining areas of concerns within the curriculum, the various student services and the building environment. This survey will be shared at the annual retreat that we are initiating this fall.

Third, Berkeley now has monthly faculty meetings and a very robust studio review culture including an annual presentation and critique of student work (the CED Circus) from across the college by distinguished alumni and faculty. End of term studio reviews are now compressed into a single week and coordinated to allow students and faculty from throughout the department to participate. This allows for a focused assessment of studio work for faculty and students alike.

Fourth, every fall the faculty discuss departmental needs and desires for future faculty which as stated, is a direct result perceived curricular or disciplinary need. These requests are forwarded to the dean of the college and then university for approval. Since 2010 we have hired seven new faculty with diverse expertise. We have been unsuccessful the last two years due in part to the current economic situation We often have requests planned well into the future and currently have an expressed need for two additional design faculty

Curricular Assessment Process Diagram



Curricular changes are motivated by changes in the discipline and challenges and opportunities presented by students, faculty, alumni as well as external or accreditation review bodies. These changes are formulated by the M.Arch Committee consisting of 6 faculty members, a graduate advising staff member and the Head of Graduate Advisors. In consultation with the Department Chair curricular discussions are discussed and voted upon at a meeting of the Architecture Department Faculty.

UC Berkeley is accredited by WASC, the Western Association of Schools and Colleges February, 2015 for a 10-year term. They will return for a mid-cycle review in 2020 and for a full assessment in 2024.

In addition to NAAB accreditation, the Architecture Department performs a self-assessment and undergoes a University mandated Academic Program Review by the every 10 years. Our last university review was in 2009. See the APR Policy in the Supplemental Information:

Section 2. Progress since the Previous Visit

Program Response to Conditions Not Met

3. Public Information

Visiting Team Report [2010]: As of this review, the language from NAAB 2004 Conditions – Appendix A has not been revised in the General Catalogue.

Program Activities in Response [2010]: The required text- “In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB) ... Next accreditation visit for all programs: 2016.” is now included in the Architecture Department Catalogue of Courses and on department’s website.

13.16 Program Preparation

Visiting Team Report [2010]: Evidence of ability in programming was found in several instances, but was not consistently observed for all students.

Program Activities in Response [2010]: ARCH201 Comprehensive Studio, ARCH203 Thesis Seminar, have been substantially revised (course syllabi were attached).

NAAB [2011]: Please continue to report on how the revisions to the four studios (ARCH201, ARCH202, ARCH203, and ARCH204) address this deficiency.

Program Activities in Response [2011]: ARCH201 Comprehensive Studio, ARCH203 Thesis Seminar, have been substantially revised (course syllabi were attached).

NAAB [2012]: The program is clearly working to address this deficiency as demonstrated by substantial revisions to the Comprehensive Studios and the Thesis Seminar. The program is advised to report on its assessment of the results.”

Program Activities in Response [2012]: In ARCH201 Comprehensive Studio students receive a basic program from which to begin. This year the program choices were a cultural center, a community center or winery located in an urban context. Over the course of the semester students are required to develop a more robust program that situates the project in its site as well as culturally and experientially. Faculty members feel these results have been improving incrementally each year.

In ARCH203 Thesis Seminar students develop individual programs that include specific activities, size and proximity as well as contextual, cultural, disciplinary and theoretical dimensions. The semester concludes with a pamphlet that guides the work of the subsequent thesis studio. Faculty members have stated that the work in this area has greatly improved over previous semesters and feel that the thesis year is headed in a positive direction

NAAB [2013]: “The program reports that, according to the faculty assessment, changes made to the comprehensive studio and the thesis seminar have resulted in improvements in student work and that these courses are now headed in the right direction.”

Program Activities in Response [2013-2015]: Program preparation is now an integral part of ARCH200B, Introduction to Architectural Design II, ARCH203, Integrated Design Studio and ARCH204A, Thesis Seminar.

13.22 Building Service Systems

Visiting Team Report [2010]: "Understanding of building service systems was not consistently observed in student work. Awareness of building service systems was observed in the studio visits."

Program Activities in Response [2010]: Faculty discussed ways to revise the pedagogy and content of ARCH201 Comprehensive Studio and ARCH260 Construction to specifically address SPC 13.22, Building Service Systems.

NAAB [2011]: "Please continue to report on how the revisions to ARCH201 and ARCH260 address this deficiency."

Program Activities in Response [2011]: ARCH201 Comprehensive Studio and ARCH260 Construction were revised to address SPC 13.22, Building Service Systems (syllabi were attached).

NAAB [2012]: "The program is clearly working to address this deficiency as demonstrated by revisions to ARCH201 and ARCH260. The program will evaluate the results and report on its assessment in the 2012 annual report."

Program Activities in Response [2012]: Responding to this SPC remains a challenge. ARCH260 Construction specifically addresses building service systems although the course tends to foreground more basic construction systems, building materials and envelope design. As a result ARCH201 Comprehensive Studio projects have yet to illustrate these systems. Further work is needed in this area.

NAAB [2013]: "The program's assessment of progress toward meeting this deficiency is that "further work is needed in this area." The NAAB appreciates the program's candid assessment and encourages the program to continue reporting on the outcome of its efforts to address this criterion."

Program Activities in Response [2013-15]: Building Service Systems is addressed both in ARCH260 Introduction to Construction and ARCH203 Integrated Design Studio (formerly ARCH201 Comprehensive Design).

13.23 Building Systems Integration

Visiting Team Report [2010]: "While there is some evidence of the students understanding of structural and building envelope systems, there is insufficient evidence of the student's ability to integrate these systems. The team did not find consistent evidence of the ability to assess and integrate building service systems."

Program Activities in Response [2010]: Faculty discussed ways to revise the pedagogy and content of ARCH201 Comprehensive Studio and ARCH260 Construction to specifically address SPC 13.23, Building Systems Integration.

NAAB [2011]: "The program should continue to report on efforts to address this deficiency."

Program Activities in Response [2011]: ARCH201 Comprehensive Studio and ARCH260 Construction has been revised to specifically address SPC 13.22, Building Service Systems (syllabi were attached).

NAAB [2012]: "ARCH201 and ARCH260 have been revised to specifically address this SPC. The program will evaluate the results and report on its assessment in the 2012 annual report."

Program Activities in Response [2012]: Faculty members feel that ARCH201 Comprehensive Studio and ARCH260 adequately address structure and envelope systems. A140, the required Building Science course introduces students to environmental systems. Faculty discussions regarding the integration of building systems into building design will require further development of ARCH201.

NAAB [2013]: "Please continue to report on efforts to address this criterion."

Program Activities in Response [2013-2015]: Building Systems Integration is addressed both in ARCH260 Introduction to Construction and ARCH203 Integrated Design Studio. In fall 2015, design faculty members will be joined by a structures faculty member and a building science faculty member to co-teach ARCH203 Integrated Design Studio to better address this concern.

13.25 Construction Cost Control

Visiting Team Report [2010]: "The team was unable to find sufficient evidence of building cost, life-cycle cost or construction estimating prepared by students."

Program Activities in Response [2010]: Discussions are underway to revise the pedagogy and content of ARCH260 Construction, ARCH201 Comprehensive Design and A207 Practice to specifically address SPC 13.25 Construction Cost Control.

NAAB [2011]: "The program should continue to report on efforts to address this deficiency. Please note that in the 2009 Conditions for Accreditation, this SPC is now covered in Part Two, Section 1, B9. Financial Considerations."

Program Activities in Response [2011]: ARCH207D Culture of Practice has been initiated as a required class to address in part SPC 13.25 Construction Cost Control (syllabus was attached). The course was offered for the first time spring 2012.

NAAB [2012]: "ARCH207D has been added as a required class to address this SPC. Please provide an assessment of learning outcomes in the 2012 annual report."

Program Activities in Response [2012]: ARCH207D Culture of Practice devotes class-time and an assignment to construction cost, estimating and control. Faculty members report that students exhibited knowledge of the importance construction costs and the role they play in the design, bidding and construction process.

13.28 Comprehensive Design

Visiting Team Report [2010]: "While ability is demonstrated as evidenced by student work in some sections of the comprehensive design studio, ARCH 201, it is lacking in other sections."

Program Activities in Response [2010]: ARCH201 Comprehensive Design was substantially revised for Fall 2010. We will review the success of the course in Spring 2011. Further discussions were held to fine-tune the course to better address SPC 13.28 Comprehensive Design.

NAAB [2011]: "Please continue to report on how the revisions to ARCH201 address this deficiency."

Program Activities in Response [2011]: ARCH201 Comprehensive Studio has been revised (syllabi were attached).

NAAB [2012]: “Revisions to the comprehensive studio are ongoing in an effort to fine-tune the course to address this SPC. Please provide an assessment of the outcomes in the 2012 annual report.’

Program Activities in Response [2012]: ARCH201 Comprehensive Studio is just now in its second revised offering. To date, issues of program, site, structure, envelope systems, emergency exiting and building assembly appear to be well developed in student work. The integration of environmental systems, with the exception natural ventilation, requires additional attention. Principles of sustainability while evident in some projects will also require additional focus.

NAAB [2013]: “The revised ARCH201 Comprehensive Studio is now in its second offering. Student work has improved in many areas but some issues—integration of environmental systems and principles of sustainability—require additional attention. Again, the NAAB greatly appreciates the program’s candid assessment of this work and encourages the program to continue reporting on the outcome of its efforts to address this criterion.”

Program Activities in Response [2013-15]: ARCH203 Integrated Design Studio (formerly ARCH201 Comprehensive Design Studio) is led by three design faculty members (39 students total) that are licensed, practicing architects. This fall they will be joined by two additional faculty members with specific expertise in structural engineering and building science (sustainability, thermal comfort, daylighting).

Program Response to Causes of Concern

A. Practice-Related Criteria: Student Performance Criteria numbers 29-34 rely heavily on ARCH207: Introduction to Methods & Conventions of Practice and, for the past two years since Arch 120 ceased being offered, Arch 208: Introduction to Construction Law, which historically was an elective. The depth with which these two courses treat the subjects appears to vary, with the prior offering just a single hour or less on a given subject. Thus, they are not equal. The addition of Arch 207 into the curriculum is commendable, but needs to be expanded in order to more convincingly satisfy the multiple practice-related Student Performance Criteria that it seeks to address.

Program Response [2010]: Current curricular discussions suggest adding a required practice course to the M.Arch curriculum to address this concern.

NAAB [2011]: “Please continue to report on efforts to address this concern, including whether a new course will be added to the M.Arch. curriculum.”

Program Response [2011]: ARCH207D Culture of Practice has been initiated as a required class to address SPC 13.25 Construction Cost Control (syllabus were attached). The course was offered for the first time in spring 2012.

NAAB [2012]: “The program included the syllabus for ARCH207D Cultures of Practice in the annual report. The course is now a required course.”

NAAB [2013]: “Please provide an assessment of the outcome of ARCH207D in addressing the issues raised by the 2010 visiting team.”

Program Response [2013-15]: ARCH207D, which will be in its 4th version in S2016 addresses the following SPC: B.3. Codes and Regulations, B.4 Technical Documentation, B.10 Financial Considerations, C.2 Integrated Evaluations and Decision-Making Design Process, D.1 Stakeholder Roles in Architecture, D.2 Project Management, D.3 Business Practices, D.4 Legal Responsibilities, D.5 Professional Conduct. ARCH207D shares the comprehensive responsibility for each SPC with other courses. Please see the SPC Matrix.

B. Life Safety: Increased efforts need to be made to integrate exiting related life safety issues into coursework that is clearly provided to all students

Program Response [2010]: The current offering of Comprehensive Studio will go a long way toward responding to this deficiency. The faculty will review the work from the Fall 2010 course this Spring. Meanwhile, discussions are underway to further revise the pedagogy and content of ARCH201 Comprehensive Design to specifically address shortcomings in SPC 13.28 Comprehensive Design.

NAAB [2011]: "Please continue to report on efforts to address this concern, particularly on the review of work in the fall 2010 Comprehensive Studio."

Program Response [2011]: ARCH201 Comprehensive Studio has been revised (syllabi were attached).

NAAB [2012]: "Please provide an assessment of whether life-safety concerns are consistently demonstrated in student work."

Program Response [2012]: Life Safety concerns specifically as they relate to exiting in emergency situations is consistently demonstrated in student work at the ARCH200B and ARCH201 (2nd and 3rd studios in the sequence). When the subject of later studios, including thesis, result in building proposals they likewise attend to and satisfy life safety concerns.

NAAB [2013]: "The program reports that student work (in 2nd and 3rd studios and thesis studios) consistently demonstrates life-safety issues.'

Program Response [2013-2015]: Life Safety issues are introduced in the ARCH200B studio and demonstrated in ARCH203 Integrated Design Studio.

C. Studio Culture: Though there is a clear and positive culture within the student body, there is concern that the Studio Culture policy was developed and implemented by the faculty in a top down approach, rather than taken on as a student initiative from the bottom up. As the studio culture policy is noted as a living document, its maintenance by the student body remains a critical component to its eventual success within the walls of Wurster Hall.

Program Response [2010]: The chair established a representative student group to meet with the chair on a regular basis. The Studio Culture policy will become one of their responsibilities.

NAAB [2011]: "Please continue to report on efforts to address this cause of concern."

Program Response [2011]: The Dept. chair and M.Arch Committee chair met informally with groups of students on a regular basis. The Studio Culture policy had yet to become one of their priorities.

NAAB [2012]: "The program notes that "it will continue to explore ways to address this issue in a more formal way." Please continue to report on these efforts."

Program Response [2012]: The department chair continues to regularly meet with students in informal ways. This has led to a much stronger relationship between students, faculty and the administration. Additionally, we have instituted two new 1-credit seminars for students in the first year of the 3-year M.Arch program to attend public lectures and discuss the ideas presented by the speaker. As a result a more robust and engaged student voice is emerging. Attempts to create a formal set of meetings with students have yet to be successful.

NAAB [2013]: "The program noted some new ways in which faculty, students, and the administration have developed stronger relationships but did not address the visiting team's concern that the studio culture policy be viewed as a student-driven initiative rather than a policy developed and implemented by the faculty. Please continue to report on this concern."

Program Response [2013-2015]: The Department Chair held a regular series of conversations with graduate students in 2014-15 to discuss issues of concern specifically- healthy physical and emotional practices, inclusion, diversity and access. These meetings produced a series of student-initiated issues to be addressed in a revision to the studio culture statement.

D. Freehand Drawing: There is a concern that as the technology tools continue to become more advanced, and an even more common tool within the design profession, that the evidence and importance of freehand drawing as part of the design process will further be dismissed within the curriculum.

Program response [2010]: The faculty and administration agree with this concern and are determined to keep freehand drawing central to the education of the architect. A new course in representation is in the development stages.

NAAB [2011]: "Please continue to report on the development of a new course and other efforts to address this concern."

Program response [2011]: ARCH200C Representation was offered for the first time fall 2011 as a required class (syllabus was attached).

NAAB [2012]: "Please report on the assessment of the results of ARCH200C."

Program response [2012]: ARCH200C made vast improvements in students' ability to visualize their ideas and develop their design projects. Attention to the skills and advantages of drawing with a free hand continues to lag drawing with instruments or with a computer. Discussions continue on how best to deliver on the promise and necessity of free hand drawing in ARCH200C.

NAAB [2013]: "*The program's efforts to address this concern are duly noted; please continue to report on the outcome of these efforts.*"

Program response [2013-15]: As stated in the 2012 Annual Report the new ARCH200C Representation course is considered successful in introducing students to conventional and emerging visualization techniques. Freehand drawing is routinely expected in studio course work as an integral part of the design process. Alternative representational techniques including freehand drawing, painting and photography are specifically addressed in elective Visual Studies courses available to students every year.

Summary of course changes since 2010 NAAB review-

F2011 initiated ARCH200C Representational Practice (3 credits) as a required course
F2011 initiated ARCH 207A Arch Lecture Colloquium (1 credit) as a required course
F2011 initiated ARCH 207C Professional Practice Colloquium (1 credit) as a required course
F2011 initiated ARCH 270 Case Studies in Modern Architecture (3 credits) as a required course
S2012 initiated ARCH 230 Advanced Architectural Design Theory and Criticism as a required course
S2012 initiated ARCH207B Arch Research Colloquium (1 credit) as a required course
S2012 initiated ARCH207D The Cultures of Practice (3 credits) as a required course
F2012 consolidated M.Arch capstone project (formerly ARCH203 and ARCH 204) into ARCH204A
M.Arch Thesis Seminar and in S2013 M.Arch Thesis Studio

F2013 initiated ARCH201 Arch and Urbanism studio to replace 1 of the 2- ARCH 202 Grad Option Studios

S2015 initiated ARCH240 Advanced Study of Energy and Environment replaces ARCH 140 Energy and Environment as a required course

F2015 ARCH203 Integrated Design Studio replaces ARCH201 Comprehensive Design Studio

Response to Changes in the 2014 Conditions

The primary emphasis of the changes between the 2009 and 2014 Conditions focused on Realm C: Integrated Architectural Solutions. Given that Comprehensive Design (now Integrated Design) was a concern after the 2010 visit we have been focusing on this effort for some time. First, we moved Arch203 Integrated Design to the fall term of the student final year instead of the fall of their penultimate year. This allows students to take the required courses the following required courses: Arch240 Adv. Energy and Environment, A260 Construction, Arch 150 Structures and Arch207D Culture of Practice prior to Arch203 Integrated Design. Second, we forged a closer relationship between the content of Arch 240 Adv. Energy and Environment and A200B Studio with some shared content between the classes. Third, we've added faculty with expertise in structures, building science and building envelope design to the Arch203 Integrated Design Studio. Arch203 Integrated Design was taught this way for the first time in F2015 with considerable success. We expect our student's ability in this realm to continue to improve moving forward.

Section 3. Compliance with the Conditions for Accreditation

I.2.1 Human Resources and Human Resource Development

For the resumes of each full-time member of the instructional faculty who teaches in the professional degree program, please see the following DropBox link:

https://www.dropbox.com/sh/r2d307ao3mimwth/AACx6HbCz7rPGA_TUpJs3sEla?dl=0

For the Faculty Matrix for each of the two academic years prior to the preparation of the APR, that identifies each faculty member, including adjuncts, the courses he/she was assigned during that time and the specific credentials, experience, and research that supports these assignments, please see the following DropBox link:

https://www.dropbox.com/s/kkkf8dd9yi9lhp7/Sect.3_I.2.1_Faculty%20Matrix_UC%20Berkeley%20Architecture_F13-F15.pdf?dl=0

Faculty members at Berkeley participate in a very robust evaluation process and are expected to remain current in their area of expertise. Unlike most other schools, ladder rank faculty members participate in a merit review approximately every 3 years. This review takes place at the department, college and university level. In order to qualify for a salary increase faculty members must demonstrate high achievement in 3 areas- scholarship/creative work, teaching and service. The result of these reviews is a very active faculty body, many of whom are leaders in their respective fields.

Part-time faculty members are hired on a semester-semester or annual basis. They are selected for their expertise and receive a more informal review of their credentials and teaching experience at the time of their hire.

Faculty members who are licensed in California are required to participate in continuing education programs.

RESOURCES FOR FACULTY AND INSTRUCTORS

U.C. Berkeley, the College of Environmental Design, and the Department of Architecture provide many varied resources for faculty and instructors. Below is a brief description of these resources which include funding and other valuable services.

GENERAL RESOURCES FOR FACULTY

- Office for Faculty Equity & Welfare
 - Calcierge for New Ladder-Rank Faculty
 - Help with locating housing, resources for families, employment support for partners and spouses, etc. Visit the URL for more information.
<http://ofew.berkeley.edu/new-faculty>
 - Work-Life Integration: <http://ofew.berkeley.edu/sites/default/files/balancingworklife.pdf>
 - Family Policies & Services
 - Support for Families: <http://ofew.berkeley.edu/welfare/families>
 - Back-up Caregivers: <http://ofew.berkeley.edu/back-care-advantage-program>
 - Diversity Resources
 - <http://diversity.berkeley.edu/diversity-resources-faculty>
 - Benefits
 - <http://hrweb.berkeley.edu/benefits>
 - Retirement
 - Pathways to Retirement: <http://ofew.berkeley.edu/welfare/retirement/pathway-retirement-overview>
 - Retirement Center: <http://retirement.berkeley.edu/>
- Center for Teaching & Learning
 - The Center for Teaching and Learning provides a wealth of resources for both Academic Senate and non-senate faculty at U.C. Berkeley. Their mission is to “enrich, promote, and support teaching and learning effectiveness in the areas of pedagogy, curriculum, and assessment.” More information is available here: <http://teaching.berkeley.edu/> .
- Educational Technology Services
 - Provides technology services to the academic enterprise, including bCourses (course website system), audio-visual services, instructional computer facilities, instructional equipment checkout, etc. More information about their services is available at: <https://www.ets.berkeley.edu/discover-services> or <https://www.ets.berkeley.edu/>

FINANCIAL RESOURCES FOR FACULTY

- Start-up Funding

Newly hired ladder rank faculty are given start-up packages that may be spent during the first four years of his or her appointment. The packages generally include the following:

 - A Recruitment Allowance from the central campus that is available for payout to the faculty member. The primary purpose of this funding is to assist with housing costs, as the San Francisco Bay Area has one of the highest housing indexes in the country. However, this funding may also be used to support expenses related to childcare, education or tuition assistance, or similar purposes. Currently the amount provided by the central campus is \$62,700. The allowance may be paid out in a single or multiple installments within the first 10 years of appointment.
 - Research Funding is provided by both the central campus and the Department of Architecture as part of the start-up package. This funding for research purposes, office furniture, computers, etc. The current amount provided per faculty varies with a minim of \$85,000.
- BEAR Funding

In 2014 the Berkeley campus implemented a new research funding program for ladder faculty that replaces a long-standing funding program from the Academic Senate's Committee on Research (COR). This new funding is called BEAR, for Berkeley Excellence Accounts for Research. Full-time ladder faculty are given \$2,000 per semester for the previous year's active service (\$4,000/year). Part-time ladder faculty are given funds in proportion to their percentage of appointment. Ladder faculty who are appointed to endowed chairs with an annual payout of \$10,000 or more are not eligible for BEAR funding.

- **Joan Draper Architectural History Endowment**
The Joan Draper Architectural History endowment supports teaching, research, and creative activities of faculty and scholars in the area of architectural and urban history and conservation of history records and images. Each fall the department chair sends out a call letter to Architecture faculty, graduate students and the director of the College of Environmental Design Archives asking for proposals for Draper funding. Awards are then distributed with at least 20% being directed to the Environmental Design Archives, per the donor's wishes.

- **Charles Moore Endowment for the Study of Place**
The Moore endowment yields approximately \$20,000 income per year and its purpose is to "support programs that address humanistic value as a basis for place making, learning principles from the history of many cultures, and from the close study of existing places." Therefore, the department sends out a call letter to faculty each year asking for proposals for course travel supported by the Moore fund. Proposal(s) are awarded each year to support travel expenses for faculty member(s) and participating students.

- **Administration Funds**
Prior to the current year the department would allocate "Administration" funds to ladder faculty to provide a budget for course costs beyond what the department provides (travel support for reviewers, food/drink for reviewers, etc.). For several years the budget was \$1,000 per faculty member per year. In FY2014-15 the amount was decreased to \$400 (\$100 per class taught). Due to the new BEARS fund and increased budgetary restraints, the department no longer provides this funding. As of 2015-16, if faculty have course costs not covered by BEARS, they can request funding from the department on an ad hoc basis.

- **Endowed Chair Funds**
 - **Eva Li Chair**
 - Chair Holder: Department Chair Tom Buresh
 - Annual Revenue (FY2015-16): \$25,000
 - Established: 2003
 - Purpose: As stated in the fund terms, to "advance the study of architecture with a preference for investigations that examine the ethical consequences of design processes and decisions in personal, cultural, and ecological terms." Income may be used for "program support, graduate student staff, support of visiting lecturers, publications, etc."

 - **Robert J. & Millicent C. LaLanne Chair for Real Estate Development, Architecture, & Urbanism**
 - Chair Holder: Associate Professor Christopher Calott
 - Annual Revenue (FY2015-16): \$25,000 for chair holder, \$2260 for graduate student support.
 - Established: 2014

- Purpose: As stated in the fund terms, to “support a chair holder that will lead research, case studies and instructional programs that span the cycle of thoughtful and responsible real estate development, architecture, urban design and planning, and leadership skills required for successful intervention in the built environment.”
- General Info: This is a new chair that began in 2014 and Professor Calott is the first chair holder. He was hired effective January 1, 2015 after an search for a candidate with expertise in architecture, development and urbanism.

For a list of past and projected faculty research (funded or otherwise), scholarship, creative activities by full-time instructional faculty since the previous visit, please see the following DropBox link:

[https://www.dropbox.com/s/3zsnedjkdy2esj5/Sect.3 I.2.1 Human%20Resources Architecture%20Faculty%20Research.pdf?dl=0](https://www.dropbox.com/s/3zsnedjkdy2esj5/Sect.3%20I.2.1%20Human%20Resources%20Architecture%20Faculty%20Research.pdf?dl=0)

The staff of the Architecture Graduate Office provides M. Arch students with support in navigating the University at large. The Graduate Office acts as a mediator between the student and the various offices on campus regarding admissions, registration, enrollment, financial aid, student employment, international student issues, and contact with other departments. The Graduate Office also maintains student files and provides updates on their progress and the process and regulations they need to follow to complete their degree. If the student wants to make any changes to their schedule, do research in a specific area, add another program, or do anything out of the ordinary, the Graduate Office advises and assists the student with the process. The main purpose of the Graduate Office is to help the student deal with any administrative challenges students face.

Angela Luo is a Career Counselor with the UC Berkeley Career Center that partners with CED. Dawson offers career counseling to students at the Career Center and at CED she also provides opportunities through programs and workshops highlighting local employers and alumni. Dawson also coordinates a yearly CED Career Fair and a wide variety of professional-development workshops on topics including licensure and internships.

College of Environmental Design has partnered as a satellite office with [Counseling and Psychological Services](#) at the University Health Services (UHS) Tang Center to provide free and confidential consultations by appointment to CED graduate and undergraduate students related to personal, professional and academic concerns. Professional consultation is also available for CED faculty and staff regarding student issues and concerns.

Wurster Hall's counselor is **Dr. Amy Honigman**, a licensed psychologist with Counseling and Psychological Services. Dr. Honigman can help students make progress with any number of issues they may be struggling with, but is particularly skilled in helping students address and overcome:

- Stress and anxiety
- Depressed moods and low self-esteem
- Procrastination, time management and decision-making
- Family conflicts and pressures
- Challenges faced by ethnic minority students, first-generation college students, and/or undocumented students

Tom Buresh, Professor and Chair of Architecture, is the Architect Licensing Advisor (formerly the IDP Coordinator). Buresh is a licensed architect in CA and MI. He regularly attends both the annual ACSA Administrators Conference and the ACSA Annual Meeting. While he has not to date attended the NCARB Conferences in August, (this will be remedied going forward) he has kept current with the ongoing changes to licensing requirements by participating in presentations and discussions at the multiple ACSA

Conferences.. He is a member of the online Architecture Advisory Committee has had ongoing contact with Berkeley's representative to the CA Licensing Bo and attended a statewide meeting of the CA Licensing Board. NCARB personnel regularly conduct presentations to our architecture students at Berkeley.

RESOURCES FOR STAFF

Work-Life Balance

- [Catastrophic Leave Sharing Program](#)
- [Family and Medical Leave](#)
- [Flexible Work Arrangements](#)
- [work/life: a guide for the UC Berkeley campus \(link is external\)](#)
- [CARE Services for Faculty and Staff \(link is external\)](#)
- [UC Berkeley Parents' Network \(link is external\)](#)
- [Living Well \(link is external\)](#)

Benefits

The University of California offers a wide array of high quality benefit plans from which to choose. These include comprehensive health and welfare insurance plans, a generous pension plan, and optional retirement savings opportunities.

Benefits packages for faculty and staff are based on job classification, the nature of employment and the number of hours worked.

UC offers a valuable Total Rewards package. To see the value of your total compensation, use the [Total Compensation calculator \(link is external\)](#).

IMPORTANT BENEFITS INFORMATION

- [Retirement Benefits \(link is external\)](#)
- [\(link is external\)Important Benefits Information \(Affordable Care Act\) \(link is external\)](#)
- [A Complete Guide to Your UC Health Benefits \(link is external\)](#) (PDF)
- [\(link is external\)The Benefits of Belonging Brochure \(link is external\)](#) (PDF)
- [Overview of UC Benefits and Related Academic Policies \(link is external\)](#) (PDF)

Career Development

Career development is a self-initiated process with support and resources provided by managers and the organization. At Cal, we use a 5-part model of career development to help you organize your career development planning activities. We encourage you to explore all the information, resources, and tools provided in each area of our model. To begin your exploration, we encourage you to take the [career development competencies assessment](#) (PDF). This assessment will direct you to the part(s) of the model that are most applicable to you at this time

- [Career Counseling for Staff \(UHS\) \(link is external\)](#)
- [NOW Staff Career Development Conference \(link is external\)](#)
- [Philosophy: Career Development](#)
- [Staff Career Development Resources Brochure](#) (PDF)

1.2.2 Physical Resources

The Department of Architecture occupies over 95,000 square feet in Wurster Hall, sharing the building with the Department of City and Regional Planning, the Department of Landscape Architecture, the Urban Design program and a number of research units. The building also houses vestigial spaces for Visual Studies and studios for Art Practices, which is for the most part housed in a building immediately west, Kroeber Hall. Lecture halls, exhibition spaces, library, and cafeteria are generally shared with the other departments within the college. The Department's territory includes studio spaces, laboratory and shop spaces, smaller classrooms, and offices.

STUDIOS

Architectural design studios, including undergraduate studios, occupy five floors of the nine-story Wurster Hall tower above the north wing of our building. Studio space is essentially open space, in some cases partially subdivided by cross partitions. Most students change studio locations each semester. They have several large worktables available to the studio and generally two tables per student. Graduate studios on the eighth and ninth floors occupy slightly less than 10,000 square feet. Each studio floor has one or two seminar rooms at the east end, generally referred to as “tube rooms” (because they resulted from the additional of a vertical structural tube that was part of seismic retrofitting at the beginning of this century).

LECTURE ROOMS

The largest lecture hall, Room 112, is off the main lobby on the first floor of Wurster Hall; it seats 155 on chairs, and an addition 20 or more on stadium seating and stools along a mezzanine. The stage is accessible via a wheelchair lift. The space is intensively used by the College’s three departments throughout the day, for public lectures, large lecture classes, meetings, and symposia. A small lecture room, Room 102, is to the north of Room 112 on the same floor. Room 102 seats 75 and, while control is held outside the Department, it is sometimes used for architecture classes and small public lectures.

CLASSROOMS/SEMINAR ROOMS

Five major classrooms are located along the west side of the ground floor: Rooms 170 and 172 on the south end, and Rooms 101, 104 and 108 on the north end. A small seminar room that is locked and kept clean, Room 270, is very popular with students and faculty; in Fall 2009 it is being equipped with digital tools and a large monitor, supported entirely with private donations. Room 108 is generally used for exhibitions, but occasionally houses studio groups, Such as Sheila Kennedy’s Spring 2015 A202 Studio; the remaining rooms are used for regularly scheduled architecture classes as well as juries and other non-regularly scheduled events. The Department controls classroom scheduling. In addition, there are smaller seminar rooms controlled by the Department located in the studio areas; these are discussed above

ARCHITECTURE CLASSROOMS IN WURSTER

Room #	Size (sf)
101	780
104	1070
108	798
170	1197
172	1068
270	375
501A	745
501B	375
601A	1120
701A	745
701B	375
801A/801B	1120
901A	1120

EXHIBITION SPACES

Exhibitions of student and other work are held in various spaces, including the first and second floor lobbies, Room 108 and Room 121, also known as the Wurster Gallery. Room 108, which is controlled by the Department of Architecture, is a lockable room that can be used for smaller exhibitions of art, photographs, furnishings, architectural photographs, and models, rotated throughout the semester. Twelve large 8’ x 8’ x 2’ foot moveable display panels are used to partition the first floor lobby wall space. The lobbies are used mostly for review space now that the Wurster Gallery has been completed.

REVIEW SPACE

Reviews are conducted in the first and second floor lobbies, classrooms, and seminar rooms. They are scheduled by Michael de Leon, who works to coordinate the demands of various large groups on a first come, first served basis. The program would benefit from an updating of display surfaces, and from more contained and quieter review spaces. Lighting improvements were completed in 2011 in the first floor public areas and the new Room 121, Wurster Gallery.

FACULTY OFFICES

All ladder rank faculty members have individual offices ranging from 120-160sf. Visiting professors and lecturers share offices with the same range of sizes. If possible in any given semester continuing lecturers and visiting professors may have an office for their exclusive use. Part-time lecturers often share space with 1,2 or 3 other lecturers. Graduate student instructors will share 100sf offices.

WURSTER TECHNOLOGIES

In 2010 all computing infrastructure, Computer Labs, Studio computing and printing, the Digital Fabrication Lab, and the Fabrication Shop were moved under the Dean's *CED-Infrastructure and Information Technologies* (CED-IIT) unit, headed by Assistant Dean Patty Mead. By 2015 CED's Audio/Visual office and Building Carpenters were also moved over under the CED-IIT organization.

Technologies Staffing: Business/Support Analyst David Spiegelman provides CED Faculty desktop support; System Administrator Alex Warren provides Computer and Digital Fabrication Lab computer and network support as well as manages distributed student computing and printing/plotting; AV/IIT Joe Gouig manages the audio/visual loan office and distributed audio/visual activities; Web Master Marge d'Wylde, along with outside consultants, redesigned and continues to develop the CED website and CED's outreach in social media (Facebook, Twitter, YouTube, LinkedIn, Instagram); and Business Manager Jill Martin oversees the Materials Store (with two temporary, part-time workers staffing the Store F-Sa-Su-M-T), and the Student Technology Center (staffed Monday through Friday from 9am to 5pm). Additionally, the CED-IIT unit will be hiring a Web/Application Programmer.

Fabrication Staffing: Manager Semar Prom oversees the Fabrication Shop and six Mechanicians who have Journeyman-level skills in the trades (carpentry, furniture building, model making, welding, etc.), and two Carpenters (who provide handyman services to Wurster Hall). Manager Chris Palmer oversees the Digital Fabrication Lab and manages three Mechanicians who have specific skills in the CAD/CAM areas of prototyping and digital fabrication. Additionally there is a Machinist who oversees the maintenance of the equipment in both the Shop and DFL facilities.

Student Technology Center: Located in room 477 Wurster Hall, the Center manages daily printing/plotting use, processes fee payments and refunds, and processes technologies and facilities access. While a staff person manages the Center, it has (2-FTE) work-study students who staff the office and provide the day-to-day customer support. Workers conduct Studio and Lab reviews throughout the day to assure consumables for printing are in place, jams are cleared, ink replaced, supplies are ordered, and serious problems are sent to second tier support. Prior to 2010 the Center offered students the ability to pay for fees in person using the Campus Cal1 prepaid debit card, but all transactions had to be in-person at the Center. In 2013 payments were expanded to include the ability of the Center to accept a variety of credit cards. During that time, PaperCut (a print management software application) was upgraded and programmed to allow secure on-line processing so that students could add print funds to their accounts, even when the Center was closed. The Center has always been critical to providing building and door access using the Campus Police C-Cure system and RFD technology). The Center now sets up computer and PaperCut accounts for students immediately after fees are paid, assures proper access is being requested, processes fee waivers or provide refunds. This office also oversees the CED Help Desk and maintains the CED Knowledgebase (<http://ced.berkeley.edu/cedhelp/>), updates and posts policies, assists with scanning and printing when requested, and points students to the right places for assistance.

Audio/Visual Support: The audio/visual activity in CED is currently undergoing changes, effective Spring 2015 the AV staff started reporting to CED-IIT. Over the past couple of years projectors in the

major Lecture Hall and Department of Architecture Studio rooms have been upgraded or replaced (112 and 901a), new projector mounts installed (801a, 701a, 601a, 501a), white boards replaced or free standing white boards added (370, 104, 170, 172). But long term, the audio/visual area needs to be revitalized and starting Summer 2015 inventories will be taken of all relevant equipment in the building, then the review will move into a requirements phase.

Web Presence: In 2013, the College of Environmental Design moved away from an outdated HTML website to a content management system (CMS) with multiple distributed authors. Expression Engine was chosen due to its advanced CMS platform, extensive security features, and its ability to handle mobile designs. The CED website (<http://ced.berkeley.edu/>) currently houses a college-wide site and departmental sub-sites. ([http://ced.berkeley.edu/academics/Department of Architecture/](http://ced.berkeley.edu/academics/Department%20of%20Architecture/)). In addition, there are Expression Engine sites for CED's research units (<http://iurd.berkeley.edu/>, <http://cedr.berkeley.edu/>, and [http://ced.berkeley.edu/reseDepartment of Architecture/reseDepartment of Architecture-collaborations/](http://ced.berkeley.edu/reseDepartment%20of%20Architecture/reseDepartment%20of%20Architecture-collaborations/)).

CED manages a web server that houses approximately 120 websites which support college functions listed above, the Visual Design Department of Archives (<http://archives.ced.berkeley.edu/>), Visual Resource Center (<http://ced.berkeley.edu/research/visual-resources-center/>) and faculty research information. In 2015, the web server was moved to an external host located in Utah to support better backend management, better business resumption capability, and enhanced security.

Administrative Computing: In the Fall of 2014, CED's administrative computing desktop support was absorbed by Central Campus Services – IT (CSS-IT). They have set standards for desktop computing (<https://desktop.berkeley.edu/jacs>) and have an image that they are in process of installing on all Department of Architecture administrative machines. The Berkeley Desktop image (<https://desktop.berkeley.edu/>) is designed to provide a reliable, secure, and integrated computing environment that reduces the amount of time staff spend maintaining their computers. A standard environment combined with automated maintenance means fewer problems and quicker help with automated patches and updates, user environment management, remote support, and power management.

Additionally, in Spring 2015, CSS-IT also absorbed CED's administrative server and expanded the backup services offered to Administrative staff. This has been a net gain since now there is consistent backing up of desktops as well as server data, there is a recovery plan (back-ups are made in 2195 Hearst, with monthly snapshots sent to UCSD), and data security is assured.

Student Fees: Fees are described in the appropriate sections below. Since the implementation of the Professional Degree Supplemental Tuition (PDST) semester-based fees are not collected from these students. Undergraduates and PhD students however are subject to facility use fees on a semester basis; although PhD's can opt to purchase year-long access. All fees are subject to central Campus review and approval, are posted online, via paper posters in the various facilities, and are presented as part of all new student orientations.

COMPUTING

CED Central Computing: In 2013 CED built a Server Equipment Room (room 487) with appropriate power and 1 GB hardwired connections, primarily to move CED servers from closet spaces into a room that was specifically designed to handle these types of equipment. This room is air cooled, but has AC in place to cut in when required. Shortly thereafter, CED-IIT built a Rendering Farm that is accessible from any CED-IIT student computer. In 2014 CED moved from a Novel server environment into Microsoft, utilizing central Campus software licenses and expertise. Then in 2015 all college and Campus license servers were moved to new hardware, and are currently in physical and virtual environments depending upon requirements.

CED Networking Infrastructure: In 2010 upgrades to the Computer Labs were made so that they were able to utilize campus' 1 GB wired backbone. In order to address wireless access and signal strength issues, in 2013-2014 central Campus extended funds to upgrade wireless in the building with a focus on Studios. Consultants were hired to conduct a wireless survey on each Studio floor for the 2.4 GHz and 5

GHz spectrums in an effort to gain an in-depth understanding of RF interference sources and to meet overall wireless coverage requirements as specified by CED-IIT. As a result, new and more access points were added to each studio floor, and signal interference was identified and where feasible, fixed. Although this improved matters greatly, a few students still had the issue of outdated hardware or incompatible Operating Systems; so CED-IIT made available to students free network dongles that would help those older Apple or PC laptops access the 5 GHz network.

CED Computer Labs: In 2010 the cost of semester 24/7 access to the Computer Labs and its equipment was \$98 and that cost continues to this day. While the fee does not cover the actual costs associated with the software licenses or hardware upgrades, it does provide offsets to these costs. In 2010 College funds were spent to upgrade the 214 Computer Lab (painting, new network connections, new furniture and audio/visual equipment, etc.); the 479 Computer Lab and all distributed Studio computers were upgraded to the 2010 minimum standard. In 2013-14 these computers were further upgraded with components (Solid State Drives and video cards) designed to extend the life of the machines and to run the newer software applications. Eventually, a newer standard was put in place, and the 479 Computer Lab was upgraded from 20 to 30 stations, and renovated similar to the other Lab (painted, new furniture, etc.). Since 20 computer systems were already in place, 10 new computers (representing the new standard) were purchased to augment the count.

2010 Computer Lab Standard

- 24 inch 1920 x 1200 monitor
- Intel Core i7 2600 quad core CPU
- 8GB RAM
- Rotational hard drive 500 gb or larger
- 2014: replaced mechanical hard drives with 500 gb Solid State Drives (SSDs)
- 2015: added GTX750 Ti video cards

2014-5 Computer Lab Standard

- ASUS PA279Q 27" WQHD 2560 x 1440 LED Backlight True Color Professional Monitor
- ASUS Z97-A LGA 1150 Intel Z97 HDMI SATA 6Gb/s USB 3.0 ATX Intel
- Intel Core i7-4790 Haswell Quad-Core 4.0 GHz
- Crucial Ballistix Sport XT - DDR3 - 8 GB : 2 x 4 GB - DIMM 240-pin 1866
- GPU: Integrated Intel HD 4600 (GT2)
- Case: Antec Sonata Series SOLO II Black Aluminum / Steel ATX Mid Tower Computer Case
- SSD: Crucial MX200 512 GB
- PSU: Antec HCG 520 Modular
- Logitech Desktop MK120 Mouse and keyboard

Since 2014, CED treats the two Computer Labs as college-wide resources available to students in all three departments on a 24/7 basis while school is in session. Reserving the rooms is now based on enrollment; there are 50 stations in room 214 and 30 stations in room 479 (along with an instructor computer). When not reserved, the Labs are available for students to use as a study area.

Architecture Studio Computers: The computing changes extend into the Studios, where the Department of Architecture added 2 more computer systems to Studio Floors 6-9 (a 50% increase from 2010); the multi-use 5th Floor Studio continues with 2 computes. Each of the Studio Floors has plotters, color printers, scanners, and paper-cutters. CED-IIT is adding new paper cutters and will be replacing scanners, and by the end of 2015 all Studios should have these new equipment.

In 2013 a new large-scale scanner (scans images up to 42" wide, at 12" per second, 1200dpi high resolution, and media can be up to 20mm thick) was bought and placed in the Student Technology Center (room 477) for use by students when required. Otherwise, scanners are available in the Studios and the 214 Computer Lab.

Studio	Student Computer Systems	Table Top Scanners	PaperCutters
9th Studio	4	1- Epson Expression 10,000xl scanner 1- HP Scanjet 4070 Photosmart	old
8th Studio	4	1- HP Scanjet 4070 Photosmart	Dahle 51-1/8" Premium Rolling Paper Trimmer and stand
7th Studio	4	1- HP Scanjet 4070 Photosmart	old
6th Studio	4	1- Epson Expression 10,000xl scanner	Dahle 51-1/8" Premium Rolling Paper Trimmer and stand
5th Studio	2	1- Epson Expression 10,000xl scanner	old
#477 Tech Center	3	1- Epson Expression 10,000xl scanner 1- Large scale scanner	none
#479 Computer Lab	30	none	none
#214 Computer Lab	50	2- Epson Expression 10,000xl scanner	Dahle 51-1/8" Premium Rolling Paper Trimmer and stand

Software Image: In 2010-2011 the software licenses were modified so that the same software image could be installed on all the student machines; thereby assuring students, no matter what computer was used they would be able to access what they needed. Then in 2015, after major infrastructure changes, CED-IIT started implementing image updates via the network. Below is a list of the major applications, the image has quite a number of additional utilities and applets that support all instructional activities defined by the Instructors.

Vendor	Software for Student Personal Use	Software on CED-wide Image
AutoDesk	Full suite available free for download	Particular applications from the whole suite are on the computer image based on instructional needs and students interest
Adobe	Full Cloud Suite of Adobe Products available for download	Particular applications from the Master Suite are on the computer image based on instructional needs and students interest
Microsoft	Full suite of Microsoft Products are available for download	Full Suite is on computer image
ESRI	Students are provided a free application disk to download the software to their laptops.	Particular applications from the whole suite are on the computer image based on instructional needs and students interest
GOOGLE	Available free to students: Google Mail, Drive, Calendar, Earth	All are available on-line via the image
Box	50 gb storage is available free to all students	Box is available on-line via the image
Rhinoceros	Student discount cost is available from vendor web site	Rhinoceros and Plugins (Grasshopper, Rhino Cam, Rhino Terrain, Vray) are on the image
R R Studio Stata	R and R Studio are open source and available for download	On image
Lidar		Envi 5.2, IDL 8.4

MapTek		iSite
SAP 2000		On image

Printing/Plotting: Printing and Plotting are distributed services available in key physical locations throughout Wurster Hall as well as available via Cloud Printing. Physically there is printing equipment in Computer Labs, Studio computing areas, and the Student Technology Center (room 477). The plotters are of two types, the Canon (iPF825) is especially well designed for colorful visual presentations and the HP's are especially good with very fine line drawings. Cloud Printing is available via PaperCut and coordinates printing to any color or black-and-white laser printer available in the Studios. To support PhD students, they can use the Cloud to print to either the Studio printers or printers located in the Student Technology Center (room 477).

Studio	Canon Plotter (iPF825)	HP Plotter (various models)	B&W Printer (Xerox 4600)	HP Color Laser	Epson (3880/3800)
9 th Studio	2	0	0 (use B&W settings on color printer)	1- M855	0
8 th Studio	2	0	0 (use B&W settings on color printer)	1- M855	0
7 th Studio	1	1- 1100 ps Designjet	0 (use B&W settings on color printer)	1- 5550	0
6 th Studio	1	1-1120 ps Designjet	0 (use B&W settings on color printer)	1- M855	0
5 th Studio	0	1- 1120 ps Designjet 1-1200 Designjet	0 (use B&W settings on color printer)	1- 5550	0
#477	0	Photo-quality HP Designjet t1120ps	HP 9050	0	1
#479 Lab	1	0	Xerox 4600	1- M855	0
#214 Lab	1	1-4000 Designjet	Xerox 4600	2- 5550	1

Printing Costs: The costs for printing are reviewed and approved by the central campus committee responsible for direct charges to students. Their printing calculation include: recovery of consumable costs (ink, paper, print heads, drums, etc.), recovering maintenance costs (labor and parts), and paying student workers' salaries who service the equipment throughout the day. In 2009 there were some adjustments in printing rates due to initial calculation errors, but printing costs have been essentially held flat since 2010. In 2013 CED-IIT was informed it needed to start accounting for sales tax, so that tax percentage is added to the cost of printing.

Printing Specs	Cost
B&W Letter-Sized Paper	Page \$0.06, Duplex \$0.09
B&W Tabloid-Sized Paper	Page \$0.12, Duplex \$0.18
Color Letter-Sized Paper	Page \$0.30, Duplex \$0.45
Color Tabloid-Sized Paper	Page \$0.60, Duplex \$0.90
Epson Color Digital (477 and 214 Wurster Hall)	\$1.75 Up to Letter-Sized
Epson Color Digital (477 and 214 Wurster Hall)	\$1.91 Above Letter-Sized to Tabloid-Sized
Plotting (older plotters, mainly HP)	\$1.20/square foot

Plotting (newer plotters, mainly Canon)	\$1.40/square foot
HP Photo Quality Plotting on high end paper	\$3.60/square foot

DIGITAL FABRICATION LAB

In 2010 the CAD/CAM Lab was housed in room 481 Wurster Hall, and was a fully student-run operation. Graduate students scheduled the use of the Lab, trained others on how to use the machine, conducted modest repairs, and organized consumables ordering. By 2014 there was: a professional Manager; a part-time machinist to maintain equipment; Mechanics to train students, review print/cut files, and oversee equipment use; a formal on-line scheduling system; and the Lab moved into a new facility. In 2014, CED opened its new 1,500 square-foot Digital Fabrication Lab (DFL) in part due to a bequest from Vernon DeMars (BA '31), celebrated architect and co-founder of the College of Environmental Design. The facility was helped by in-kind donations of design and construction expertise by alumni Mark Cavagnero (of Mark Cavagnero Associates) and Tom Mead (formerly of WebCor Builders). To operate the DFL equipment, there are 13 computers (from tablets to desktop), specialized software, and digital cameras over each laser cutter.

Undergraduates have access during staffed hours (6-days a week, M-T-W-Th-F-Su) for 8-hours each day. Graduates have 24/7 access and the Lab is staffed on Saturdays to assist them with CNC and printer use. The 2010 cost for using the facility was \$210/semester and is now \$250/semester; fees cover the use and repair of equipment, hardware consumables, staffing and infrastructure (including computers, compressed air, etc.). Additionally, students pay for printing (covers powder/plastic printer consumables), CNC or Blade Cutter blades/bits, and base materials.

3D Plastic Printers	\$1 minimum
-Regular PLA	\$0.08/gram, \$0.10/cubic centimeter
-Bronze, Copper, Wood, Steel PLA	\$0.17/gram, \$0.21/cm ³
-MakerBot (various colors)	\$0.11/gram
-MakerBot (bring your own Makerbot PLA cartridge)	\$0.04/gram, \$0.05/cm ³
3D Powder Printers	
- Gray powder	\$1.00/cubic inch
- ZCorp white powder	\$3.00/cubic inch

Plastic Printers: In 2010 there was one plastic FDM printer that was intermittently available for student use and under constant repair; in 2015 there are eight. Underway is the build of a casing to house a plastic printer array and software upgrades to speed up file processing.

Vendor	Number of Machines	Bed Size
TypeA Machines	3- Series 1 (2013)	x-axis - 230mm (9 inches) y-axis - 230mm (9 inches) 230mm (9 inches)
TypeA Machines	1- Series 1 (2014)	x-axis - 305mm (12 inches) y-axis - 305mm (12 inches) 305mm (12 inches)
BFB Printer	1- refurbished in-house	x-axis - 230mm (9 inches) y-axis - 275mm (10 ¾ inches) 210mm (8 ¼ inches)
Makerbot	1- Replicator 2	x-axis - 285mm (11.2 inches) y-axis - 153mm (6 inches) 155mm (6.1 inches)
SeeMeCNC	2 - Orion Delta 3D	x-axis - 150mm (6 inches) y-axis - 150mm (6 inches) 235mm (9.25 inches)

Powder Printers: In 2010 there were two powder printers, which are still functioning. What has changed is that CED-IIT has lowered the cost of printing, and is utilizing the Department of Architecture faculty

research into powders to provide a Gray powder, along with ZCorp's white powder. This choice expands student's ability to produce a variety of shapes and allows for differing output and costs.

ZCorp 310 Powder Printers	1- Gray powder 1- White ZCorp powder	x-axis - 203mm (8 inches) y-axis - 254mm (10 inches) 203mm (8 inches)
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Laser Cutters: In 2010 the Department of Architecture faculty had purchased two laser cutters; by 2015 the Department had bought three more and CED-IIT purchased one. There is a graduate and undergraduate on-line scheduling system where students can sign up for reservations remotely.

Universal Laser Systems ILS 12.150D	1	24"x48" bed and two 75 watt lasers
Universal Laser System X-660	2	18"x32" bed and 50 watt laser
Universal PLS 6.75	2	18"x32" bed and 50 watt laser
V460 Laser System	1	18"x24" bed and a 45 watt laser

CNC & Mills: In 2010 the Department of Architecture's CNC Router was available for limited use as no one on staff knew how to use or teach the use of the hardware, and the hardware was located on another floor locked behind a door. In 2012 the new DFL Manager was hired, and he came with a full CAD/CAM experience which resulted in increased CNC use. By 2014 the CNC was housed in the new DFL and is currently being used by both faculty and students. CED-IIT acquired the table-top mill in 2013, and it has been used by students for milling wax, plastic, and aluminum (6061 grade), as well staff using it to fabricate components to fix equipment.

Techno-Isel 5' x 10' 3-axis CNC Router	1
Table-top 3 axis metal mill	1

Blade Cutters: In 2014 the Department of Architecture purchased a Zünd blade cutter to be installed in the DFL. The reason for this machine is that it is able to make blade-based cutting, routing, and creasing on a variety of materials such as paper, cardboard, foam core, chipboard, thin veneer plywood, thin plastics, coroplast and certain fabrics. A variety of cutter tools are available (see chart below) and will expand with time.

Zünd S3 M-1600 Blade Cutter	<p>Available Tools:</p> <p>EOT- Electric Oscillating Tool: is ideally suited for cutting softer, medium-density materials.</p> <p>UCT- Universal Cutting Tool: for through-cutting materials with thicknesses up to approx. 5 mm/3/16"</p> <p>CTT1- Creasing Tool 1: for processing single-wall corrugated cardboard. This tool accommodates crease wheels with a diameter of 61 mm/2.4" and a width of 20 mm/.8"</p> <p>CTT2 - Creasing Tool 2: a universally applicable crease tool. It accommodates a wide range of crease wheels</p>
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FABRICATION SHOP

The Fabrication Shop was established in 1956 by James Prestini, a famed sculptor and wood craftsman. Located in 277 Wurster Hall, the 3,600-square-foot fabrication shop is housed in an open-plan space with soaring windows. It serves the needs of students requiring the modeling of three-dimensional designs and features tools for working wood, metal, welding, concrete, and other materials. Since 2010 the Shop has undergone a change in management, expansion of services, installation of new equipment, and renovations. The Shop is open five days a week for 8-hours a day (F-Sa-Su-M-T), from 11:30 till 7:30. Most of the dangerous saws have been replaced with SawStop technology and the Shop has built safety features into its hardware. Mechanics oversee the 3-hour Shop Safety Orientation, and student participation is limited by a 20:1 (student to Mechanician) ratio for safety.

In 2015 a new Shop Yard and Paint Booth is scheduled to be built on the Southeast side of the building near the loading dock. The funding has been approved and it is undergoing the bid process now. Prior to 2010 the Shop use fee had been \$90/semester for several years, in 2010 it was raised to \$120/semester, and is now \$140/semester; Campus has approved increasing fees up to \$175/semester. When feasible, charges are increased at \$10/school year, however over the last couple of years costs have been stopped at \$140 given the sensitivity of tuition increases. This fee was initially intended to cover the cost of supplies (sand paper, glue, nails, etc.), maintenance (saw sharpening, repairs), tool replacement, and staffing; but obviously it cannot cover all costs, and the Fabrication Shop continues to have a structural deficit that is covered by the Dean's Office annually. During key times of the year the Department of Architecture pays for extended days of operations, so that the Shop is open 7 days per week for those two weeks at the end of each semester.

Maintenance of the Shop: In 2010 some equipment were and had been left on-site broken (e.g., metal Lathe) due to the complexity of repair, and lack of parts given the age of the equipment. In 2011 a Machinist was hired and over the next year all equipment in the Shop was repaired. In 2013, after a lighting study, new lights were hung and lowered to provide better coverage. In 2014 the complete Shop floor was repaired and refinished.

Equipment: There is a variety of equipment and supplies available for student use.

Welding: Welding equipment was replaced so that the Shop now has: Plasma Cutter, MIG Welder, Spot Welder, and TIG Welder; along with the necessary welding cap and helmet, jacket and welding gloves.

Metal: Metal Bender and Bending Brake, Buffer, Bench Grinder, Metal Lathe, Metal Sheer and Step Shear, Wire Stripper and Cutters

Concrete: Concrete mixer and vibrator

Wood: Drill Press, Drill, Gear Drive Machine, T-Square Commercial, Jointers, Wood Lathe, Index Mill, Mortising Chisels, Mortising Machine, Planer, Sand Blaster, Combination Disc/Belt Sander, Horizontal Belt Sander, Oscillating Vertical Spindle sander, TimeSaver Wide Belt Sander, Saw, 10" Sawstop Industrial Cabinet Table Saw, Saw, 14" and 10" Abrasive Chop (Cut-Off), 14" Radial Saw Arm, 4" Portable Table Saw, Contour Band (2 and 3-Wheel) Saw, Horizontal Band Saw, Safety Speed Cut (SSC) Saw, Scroll Saw, Sliding Compound Miter Saw, MastRLift Excel Router table, Vacuum Former/Heater, and Wet/Dry Vacuum.

Hand Tools: Scratch Awl, Rubber Sanding Block, Various Chargers, extension cords, Various Chisels, Bolts, Wireless drills, Wire Cup, Wire Rotary, Flat, Three Square and Round Bastards, Foam Cutter, Hot Wire, Grinders, Glue and Heat Guns, Air hoses, Biscuit Cable Joiner, Utility Knives, Levels and Measuring tables, Multimeter, Mallet, hammers, Hex Key Set, Ball End, Hose, Air, Various Pliers, Respirator Half Masks, Hand Riveter, Rotary Tool, Sander, Jig (Saber) Saw, Paint Scrapers, Shovels, Central Pneumatic Spray Gun, Swaging Tool, Tweezers, Vise Grip, and Various Wrenches.

MATERIALS STORE

The Materials Store was built as a partnership between CED and the Educational Opportunity Program in the Division of Equity & Inclusion who provided a grant to initiate the build and base-stock for the Store. Located in the hallway leading to the Fabrication Shop, the Materials Store is a place where CED students can purchase wood, plastic, paper, equipment, blades, router bits, and other materials to use in the Digital Fabrication Lab and Fabrication Shop. Over time, it is expected that the store will carry other supplies uniquely required by CED students.

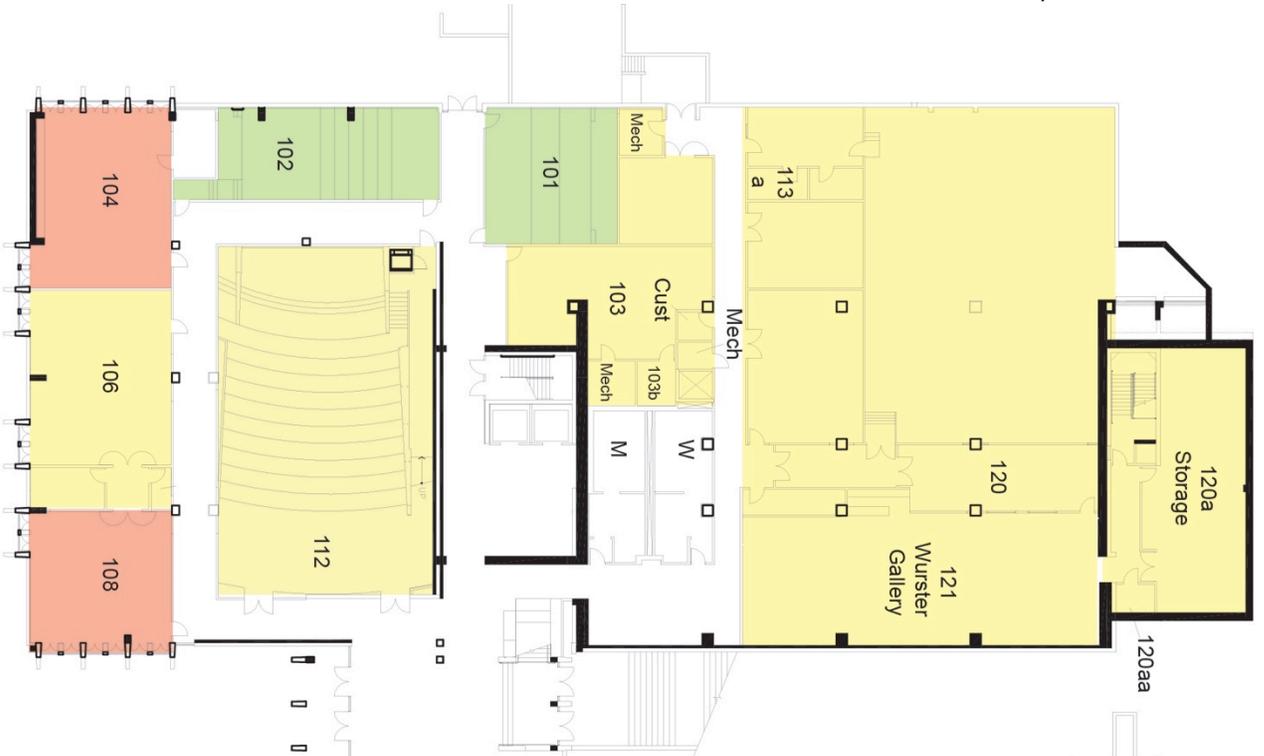
The Materials Store goals are:

- To provide materials at reasonable costs
- To eliminate transportation issues for students
- To eliminate the need to choose between attending class or getting to the stores during open hours
- To have materials on hand for CED Students when they need them

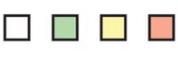
- To carry supplies in the required sizes
- To provide green, sustainable, and quality materials
- To help subsidize the Undergraduate Fee Waivers program
-

While not a wholesaler, the Materials Store does negotiate for volume cost reduction and net revenue generated from the Store is distributed 60% to fund the Undergraduate Fee Waiver program for low-income students and 40% is returned to subsidize the store cost

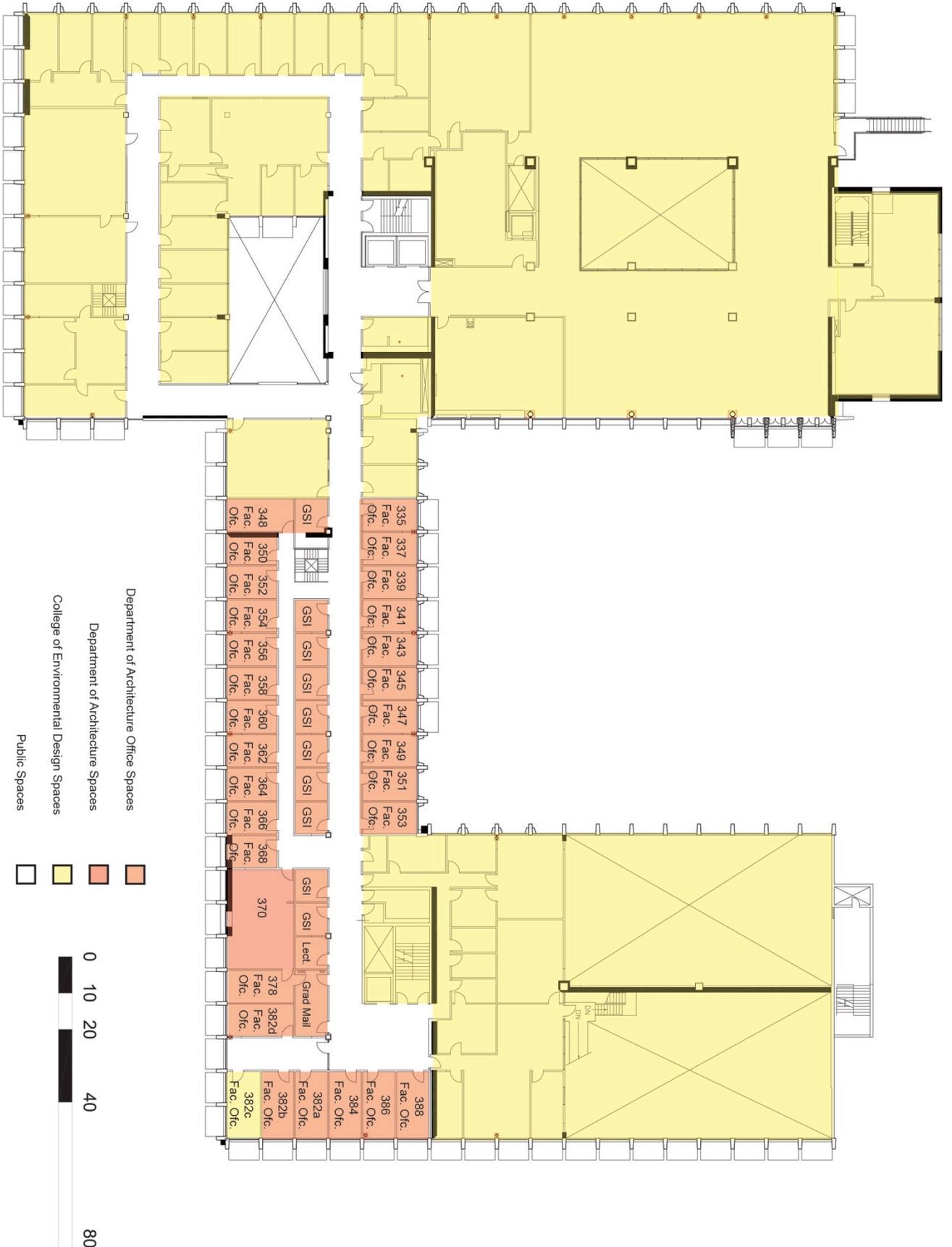
Please see the plans for Wurster Hall on the following 9 pages:



Department of Architecture Spaces
 College of Environmental Design Spaces
 UC Berkeley Spaces
 Public Spaces

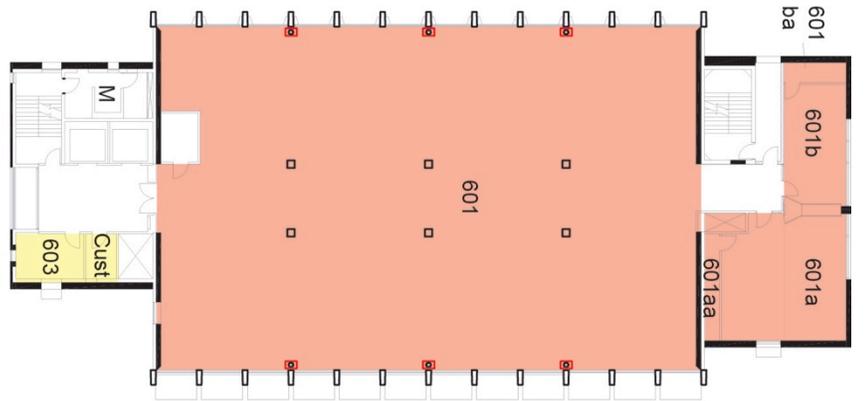




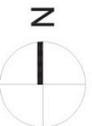


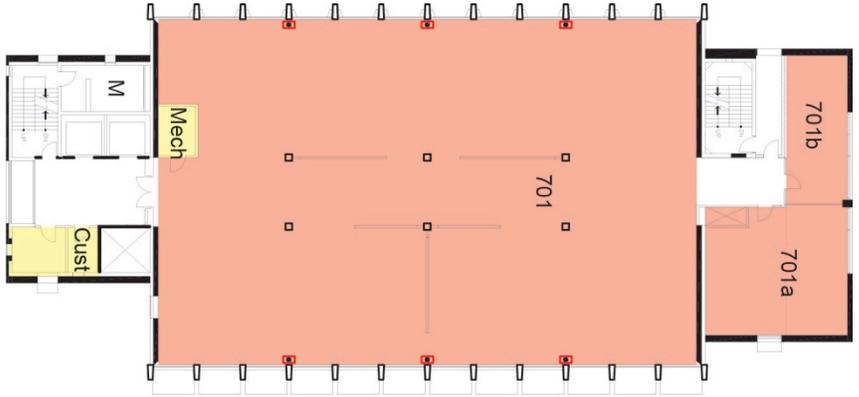




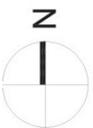


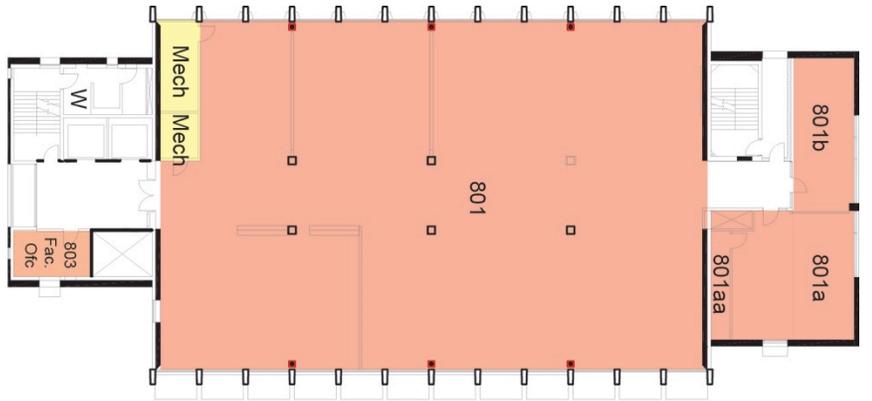
Department of Architecture
Public Spaces
College of Environmental Design/LAEP/CRP





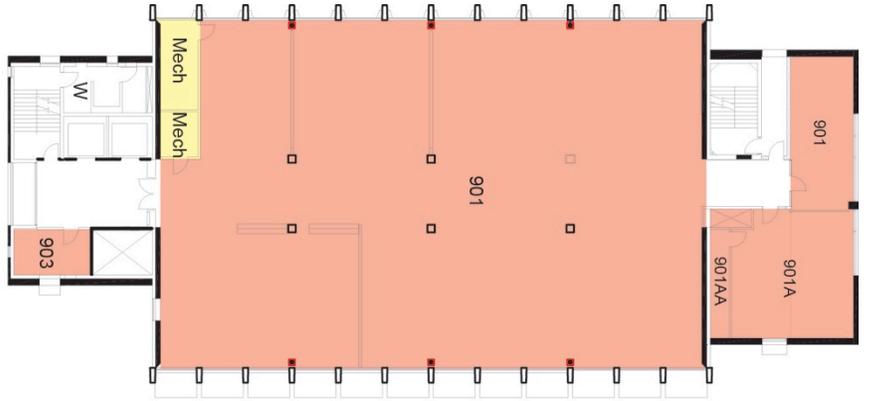
Department of Architecture
Public Spaces
College of Environmental Design/LAEP/CRP



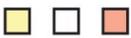


Department of Architecture
Public Spaces
College of Environmental Design/LAEP/CRP





Department of Architecture
Public Spaces
College of Environmental Design/LAEP/CRP



I.2.3 Financial Resources

Allocating Resources to the Professional Degree Program

The Arch Dept. does not distinguish between the various undergraduate and graduate programs in terms of income and expenses. Over the last three years department expenses have averaged approximately \$8,235,000/year and income has averaged \$7,806,000. This deficit has been covered with carry forward balances from previous years. The 2015-16 budget anticipates income matching expenses at \$8,500,000.

There are many income sources used in the M.Arch Program and shared with the other programs in the Department of Architecture. These base operations and limited use funds are budgeted and spent based on the terms of the fund source. Below is a summary of income and expense for the last three years.

	2012-13	2013-14	2014-15
Income (in thousands)			
Base Operations			
Campus Support	5,297	5,511	5,981
PDST Tuition	680	717	719
Other Income*	392	920	811
Limited Use			
Gifts/Endowments	543	703	1,054
Sponsored	0	0	91
TOTAL Income	6,912	7,851	8,656
Expense (in thousands)			
Compensation			
Salaries	4,655	4,937	5,357
Benefits	1,012	1,333	1,456
Non-Compensation			
Student Aid***	640	772	756
Fee Remissions	575	677	610
Supplies & Equipment	108	140	295
Other Expense**	321	533	527
TOTAL Expense	7,311	8,392	9,001
Carryforward Balance	2,219	2,051	1,484
Ending Balance	2,022	1,505	1,138

Income/Expense Notes:

* Other Income includes Arch Annual Fund, Summer Session, University Extension, Temp Academic Support, Faculty Benefits/Student Fee Remission, Support from Dean, etc.

** Other Expense includes Honoraria, Student and Faculty Travel, Entertainment, University Shared Services Charges, etc.

*** More than this is spent on financial aid as indicated in financial aid section below.

Each August carryforward balances from the prior fiscal year (July-June) and permanent budget (funding that recurs annually) are transferred by university administration to departments. Income from endowments and gifts are transferred just prior to the close of the August period each year.

M.Arch students are charged a PDST (Professional Development Supplemental Tuition) on top of the normal UC Berkeley tuition. The PDST is \$3000/semester. Revenue is transferred to the Architecture Department at the end of August for the Fall semester and at the end of February for the Spring semester. The Architecture Department receives 100% of the PDST paid by students in the M.Arch program however a minimum of 33.3% of this amount supports financial aid for M.Arch students, 16.6% supports the various CED shops and labs with an additional 10% sent to the CED Dean's Office for various college level expenses. The remaining +/- 40% is discretionary income allocated to a few staff /faculty/GSI salaries/benefits/fee remission, student/faculty travel, equipment, public lectures/exhibitions, dept. publications, visiting critics at final reviews and entertainment, etc.

Expense Categories For Which the Program has Control or Influence

- Temporary Instruction Costs- are lecturer (non-ladder rank faculty) salaries/benefits and GSI (Graduate Student Instructor) salaries/fee remission.
 - The number of lecturers and GSIs are dependent on student population and available ladder rank faculty members. Ladder rank faculty sabbaticals and course releases for administrative positions and teaching or service overloads increase the need for temporary instruction.
 - Temporary instructor salaries are set by an agreement between the lecturers/ GSIs unions and the university based on experience as determined by the Department Chair.
 - GSIs are paid a salary and have their tuition fees waived. The number of GSI positions can be adjusted downward by increasing the number of students taught per section or by increasing the number of sections taught by the GSI.
 - Typically, Ph.D. students with GSI appointments have 50% appointments which translates to 20 hours/week. M.Arch students with GSI appointments have 25-40% appointments which translates to 10-16 hours/week. Given the academic workload of M.Arch students the department does not support M.Arch students with GSI appointments above 40%.
- Financial aid
 - Packages offered at time of admission and ad hoc aid approvals are determined by the department chair. Most of the funds used for financial aid come from restricted sources aimed solely at student aid.
- Travel
 - Course travel budgets are set by the Chair in consultation with faculty members and includes the maximum amount that will be reimbursed per instructor and per student.
 - Other travel expenses include airfare and lodging for lecturers in the public lecture series and out of town guests at final reviews. This amount fluctuates depending on number of invited guests.
- Conferences/Events/Entertainment (food & drink)
 - This amount fluctuates depending on number of lectures/exhibits and the number of critics participating in final reviews
- Non-employee Payments/Honoraria
 - This amount fluctuates depending on number and status of events/guests.
- Publications & Media
 - The department prints a minimal number of Undergraduate and a Graduate Studio workbooks, a M.Arch Thesis/Studio 1 Final Review brochure as well as one copy each of individual M.Arch Thesis pamphlets. These documents are also posted on the department website.
- Equipment
 - Most often, equipment is purchased when current devices are no longer effective and cannot be repaired. Occasionally, the department will purchase new equipment to stay current with emerging technology.

Revenue Categories For Which the Program has Control or Influence

- Summer Session Income
 - Architecture courses taught in the summer generates revenue dependent on enrollment. This source is influenced by managing the content of the courses offered and prioritizing high enrollment courses.
- University Extension Income
 - Income is generated by approving enrollments of University Extension students in Architecture courses (concurrent enrollment).
- Professional Degree Supplemental Tuition
 - Currently, there is no income directly tied to student population in the Architecture Department across the B.A. in Arch., M.S. in Arch and Ph.D. in Arch programs with exception of the PDST paid by each M.Arch student. Up to now the University has set the total architecture graduate student population at 160. This maximum number includes all M.Arch, M.S. and Ph.D. students. There is now a conversation underway at the university level about relaxing the maximum graduate student population and sharing a portion of the tuition revenue.
- Annual Fund Income
 - These funds are sought by the CED External Affairs Office and are unrestricted in their terms. Efforts are ongoing to increase this revenue stream.

Scholarship, Fellowship, and Prize/Award Funding for Students

The tables below summarize student financial aid funding. The tables include not only resources on the Architecture ledger, but funding for Architecture students on the Graduate Division ledger as well. These funding sources represent unrestricted fellowships & restricted/competition-based awards. Annual income for each endowment fund is listed below. In the case of gifts, current carryforward balances are listed.

Unrestricted Fellowships

Graduate fellowships are based on academic merit primarily and secondarily financial need as appropriate. The bulk of the awards are derived from the interest generated from endowments designated for student aid.

Fellowships are used to recruit newly admitted students to encourage excellence and diversity in the program. Offers are made based on recommendation of the M.Arch Committee. Fellowship packages range from all tuition and fees, including PDST, for the entire length of their program to a specific dollar amount. For those with awards longer than one year, the additional years are supplemented with graduate student instructor (GSI) positions which pay a salary and provide fee remission.

In addition, each spring continuing students may apply for additional departmental fellowships for the following academic year. The application consists of a short statement of purpose, faculty recommendation, GPA and a show of financial need. Continuing students have received anywhere from \$0 - \$6000 in financial aid.

Unrestricted Financial Aid Funds

Fund #	Endowment Fund Name	Annual Income
Funds on the Architecture Ledger		
13784	EVANS, RICHARD ARCHITECTURE SH	10,620
13899	ALLEN & EIKELMAN BOTANICAL SCI	262,122
13983	CAMPBELL, C SCHOLARSHIP – ARCH	11,852
34190	ARCHITECTURAL ASSN FUND	865
36722	LAUB GERALD L ENDOW FD	7,183
47883	MCCORMICK SCHOLARSHIP FD	8,046
48279	OTTO SCHIEBOLD MEMORIAL	22,237

48307	A CRUZ MEMORIAL FEL FUND	422
48329	MARTENS ENDOWED FELLOWSH	6,412
49987	FREDERIC SCHWARTZ AGSA	4,416
51433	The Yukwah Fund	7,677
34200	ARCH TRAVELING FELLOWSHIP (Ph.D.)	33,400
36487	SPIRO KOSTOF (Ph.D.)	45,800
43960	EVA LI FELLOWSHIP (Ph.D.)	17,100
35671	GADSBY-TRUDGETT SCHLP (Dean's Office)	10,000
56710	REYNOLDS MALCOLM FAMILY (Dean's Office)	66,963
	Unrestricted Fin. Aid Endowment Income TOTAL	\$515,115

Funds on Graduate Division Ledger

	BLOCK GRANT (Ph.D. & M.Arch)	307,600
	GRADUATE OPPORTUNITY PROGRAM (M.Arch only)	81,811
40900	PAUL M. BRAUN (M.Arch only)	33,400
41585	FRED & BETH KARREN (M.Arch only)	14,360
49897	RICARDO & LISA CAPRETTA (M.Arch only)	1500
	Unrestricted Graduate Division Fin. Aid for Graduate Students TOTAL	\$438,671

The funds below are gifts and have no annual income, so the carryforward balance is noted.

Fund #	Gift Fund Name	Balance
49146	MARK LOWELL BROWN SCHL (gift)	975
51639	COLEMAN & DORIS GERSHUNY (gift)	34,126
53663	VRS DN-ARCH MISC STUDENT AID (from Dean)	1,219
	Unrestricted Gifts & Dean Fin. Aid Funding TOTAL	\$36,320

Restricted Fellowships (competition based)

In addition to fellowships, architecture graduate students are eligible for Prizes and Awards administered through The College of Environmental Design. Prizes include the Sooky Lee Prize for the best design solution to a housing problem, the Ciampi Art in Architecture Award recognizes studio-based work within the architecture graduate program at UC Berkeley demonstrating outstanding artistic merit, and the John K. Branner Travelling Fellowship supports independent travel.

Restricted Prizes/Awards

Fund #	Endowment Fund name	Annual Income
34289	BAKEWELL, BROWN & WEIHE PRIZE	1,953
13515	CIAMPI, MARIO ART IN ARCHITECT	2,368
34860	CLASS OF '24 SCHLP-HARNISH	7,835
35432	EHRENFELS CAMILLE J FUND	5,216
35275	FALLMAN, LEE F. SCHOLARSHIP FD	3,306
43743	FONG & CHAN ARCHITECTS	13,826
35698	GERSON MEMORIAL PRIZE	1,881
56542	HAROLD STUMP MEMORIAL TR	16,411
36011	HIRSHEN SANFORD PRIZE	855

40188	KURTZMAN, KENNTH GIA	1,068
56383	LEE, SOOKY PRIZE	1,061
46146	LIF/STRON ARCHITEC TRAVL	23,528
36792	LUIS ROSANNA SCHOLARSHIP FUND	1,418
47962	M HO MEMORIAL TRAVEL SCH	1,696
52685	MARC DAJA ELBASANI MEMORIAL	1,465
37089	MINORITY COMMUNITY DESIGN	2,169
37119	MOODY WALTER ARCH SCHP FUND	2,844
37870	STRONG KENNETH FOSTER MEM FUN	3,772
46145	W FRANKE STUDENT SUPPORT	1,100
38728	WATSON RAYMOND L ENDOW FUND	1,696
34403	BRANNER TRAVEL AWARD (Grad. Div.)	110,200
37067	CHESTER MILLER SCHOLARSHIP (M.Arch)	5,900
52301	T.Y. LIN ARCH & ENGINEERING	7,541
	OTHER - RESTRICTED GIFTS	20,576
	Restricted Prize & Award Endowment	
	TOTAL	\$239,685

The Department of Architecture offers graduate fellowships based on financial need as well as academic merit. The bulk of the awards are derived from the interest generated from departmental endowments as well as the Professional Degree Supplemental Tuition and university and government sources. The largest singular endowment, the Allen Fellowship, has generated approximately \$255,000 annually over the past two years since it began in 2014 and the university has awarded the department \$300,000 in Block Grants which are paid from various university endowments. The various other departmental endowments generate an additional \$200,000 annually.

Most of the fellowships are used to recruit newly admitted students to the program with offers based on their ranking within the admissions pool to encourage diversity and excellence in our program. The recruitment packages range from all fees for the entire length of their program to one year of fees and tuition, to one semester of fees and tuition. For those with awards longer than one year, the additional years are supplemented with teaching assistant positions.

It is also possible for continuing students to apply for departmental fellowships by completing the Dept. Fellowship application and submitting it at the beginning of the spring semester for the following academic year. The application consists of a short statement of purpose, faculty recommendation, GPA and a show of financial need. The continuing students have received anywhere from \$6000 - \$1000 as a form of financial aid for the program.

In addition to the fellowships, Architecture graduate students are encouraged to apply for Prizes and Awards administered through The College of Environmental Design. Prizes include the Sooky Lee Prize for the best design solution to a housing problem, the Ciampi Art in Architecture Award recognizes studio-based work within the architecture graduate program at UC Berkeley demonstrating outstanding artistic merit and the John K. Branner Travelling Fellowship, that supports independent travel in exploration of a particular architectural question or issue.

Nominative and Merit awards, including the Wm. Stephen and Jane Eikelman Allen Scholarship, The Richard and Laurice Evans Scholarship, Gerson Memorial Prize, Lim Wong Yukwah Student Support Fund, The Henry Adams Medal and Certificate of Merit, The Mel Ferris Scholarship, KMD Prize for Design Excellence in Digital Architecture, disburse over \$200,000 annually to students.

Financial Resources For Faculty

- Start-up Funding

Newly hired ladder rank faculty are given start-up packages that may be spent during the first four years of his or her appointment. The packages generally include the following:

- A Recruitment Allowance from the central campus that is available for payout to the faculty member. The primary purpose of this funding is to assist with housing costs, as the San Francisco Bay Area has one of the highest housing indexes in the country. However, this funding may also be used to support expenses related to childcare, education or tuition assistance, or similar purposes. Currently the amount provided by the central campus is \$62,700. The allowance may be paid out in a single or multiple installments within the first 10 years of appointment.
 - Research Funding is provided by both the central campus and the Department of Architecture as part of the start-up package. This funding for research purposes, office furniture, computers, etc. The current amount provided per faculty varies with a minim of \$85,000.
- BEAR Funding

In 2014 the Berkeley campus implemented a new research funding program for ladder faculty that replaces a long-standing funding program from the Academic Senate's Committee on Research (COR). This new funding is called BEAR, for Berkeley Excellence Accounts for Research. Full-time ladder faculty are given \$2,000 per semester for the previous year's active service (\$4,000/year). Part-time ladder faculty are given funds in proportion to their percentage of appointment. Ladder faculty who are appointed to endowed chairs with an annual payout of \$10,000 or more are not eligible for BEAR funding.
- Joan Draper Architectural History Endowment

The Joan Draper Architectural History endowment supports teaching, research, and creative activities of faculty and scholars in the area of architectural and urban history and conservation of history records and images. Each fall the department chair sends out a call letter to Architecture faculty, graduate students and the director of the College of Environmental Design Archives asking for proposals for Draper funding. Awards are then distributed with at least 20% being directed to the Environmental Design Archives, per the donor's wishes.
- Charles Moore Endowment for the Study of Place

The Moore endowment yields approximately \$20,000 income per year and it's purpose is to "support programs that address humanistic value as a basis for place making, learning principles from the history of many cultures, and from the close study of existing places." Therefore, the department sends out a call letter to faculty each year asking for proposals for course travel supported by the Moore fund. Proposal(s) are awarded each year to support travel expenses for faculty member(s) and participating students.
- Administration Funds

Prior to the current year the department would allocate "Administration" funds to ladder faculty to provide a budget for course costs beyond what the department provides (travel support for reviewers, food/drink for reviewers, etc.). For several years the budget was \$1,000 per faculty member per year. In FY2014-15 the amount was decreased to \$400 (\$100 per class taught). Due to the new BEARS fund and increased budgetary restraints, the department no longer provides this funding. As of 2015-16, if faculty have course costs not covered by BEARS, they can request funding from the department on an ad hoc basis.
- Endowed Chair Funds
 - Eva Li Chair
 - Chair Holder: Department Chair Tom Buresh

- Annual Revenue (FY2015-16): \$25,000
- Established: 2003
- Purpose: As stated in the fund terms, to “advance the study of architecture with a preference for investigations that examine the ethical consequences of design processes and decisions in personal, cultural, and ecological terms.” Income may be used for “program support, graduate student staff, support of visiting lecturers, publications, etc.”
- Robert J. & Millicent C. LaLanne Chair for Real Estate Development, Architecture, & Urbanism
 - Chair Holder: Associate Professor Christopher Calott
 - Annual Revenue (FY2015-16): \$25,000 for chair holder, \$2260 for graduate student support.
 - Established: 2014
 - Purpose: As stated in the fund terms, to “support a chair holder that will lead research, case studies and instructional programs that span the cycle of thoughtful and responsible real estate development, architecture, urban design and planning, and leadership skills required for successful intervention in the built environment.”
 - General Info: This is a new chair that began in 2014 and Professor Calott is the first chair holder. He was hired effective January 1, 2015 after an search for a candidate with expertise in architecture, development and urbanism.
- Doris & Clarence Malo Collegium Chair in Design
 - Chair Holder: Lisa Iwamoto
 - Award Amount (FY2015-16): \$25,000 for chair holder, \$19,500 for student
 - Purpose: Established for a now defunct dept. in the College of Letters & Science, the fund supports a broad range of design-related areas, including politics and design; design and everyday life; the fine arts and design; studio-based design and practice; and design and fabrication. Fund belongs to College of Letters & Science
- ARCUS Chair in Gender, Sexuality, and the Built Environment
 - Chair Holder: Associate Professor Greig Crysler
 - Annual Revenue (FY2015-16): \$25,000 for chair holder, \$20,177 for graduate student support
 - Total Available Income (includes carryforward): \$50,006 for chair holder, \$32,414 for graduate student support.
 - Established: 2011
 - Purpose: As stated in the fund terms: “Recognize and reward an accomplished faculty member in the College of Environmental Design who has an interest in Gender, Sexuality, and the Built Environment.”

Other CED Support

<http://ced.berkeley.edu/give-to-ced/faculty-support/>

- ARCUS Foundation Endowment
 - Chair Holder: Associate Professor Greig Crysler
 - Annual Revenue (FY2015-16): \$24,478
 - Total Available Income (includes carryforward): \$156,178
 - Established: 2001
 - Purpose: “Focus teaching, research, and public discussion on issues of importance to the gay and lesbian community in the design professions. Income may be used for symposia, seminars, conferences, publications, visiting professors, visiting research fellows, awards, etc.

- Andrew Mellon Foundation Grant with College of Letters & Science
 - \$1.75 million grant secured by CED Dean Jennifer Wolch & College of Letters & Science Dean Anthony Cascardi. More information available here: <http://ced.berkeley.edu/events-media/news/ced-and-college-of-letters-science-awarded-andrew-w-mellon-foundation>
 - Several Global Urban Humanities studios and courses have been offered with this funding, as well as some faculty research grants received by Professor Crawford and Professor Shanken and lecturer Rudabeh Pakravan.

Funding From Other UCB Divisions/Departments

- The UCB Center for Teaching & Learning provides many funding opportunities for faculty and graduate students. A list of these is below and more information is available at
 - Instructional Improvement Grants (<http://teaching.berkeley.edu/programs/instructional-improvement-grants>)
 - Presidential Chair Fellows (<http://teaching.berkeley.edu/programs/presidential-chair-fellows-curriculum-enrichment-grant>)
 - Lecturer Teaching Fellows Programs (<http://teaching.berkeley.edu/programs/lecturer-teaching-fellows>)
 - Advising Council Fellows Program (<http://advisingmatters.berkeley.edu/advising-resources/newsletter/advising-council-fellows-program>)
- Vice Provost for the Faculty
 - Provides several faculty fellowships outlined here: <http://vpf.berkeley.edu/faculty-fellowships>
- Freshman/Sophomore Seminar Incentive
 - Senate faculty and emeriti receive a \$3,000 unrestricted research grant for teaching a freshman/sophomore seminar in addition to their regular teaching load (http://fss.berkeley.edu/facstaff/grant_guidelines.html)
- Summer Sessions Faculty Incentive
 - Ladder faculty who teach courses of 3 units or greater during Summer Session receive a research grant of \$4500.
- Berkeley Connect Research Grant for Director & Asst. Director
 - The Director and Assistant Director of Berkeley Connect in the department of architecture receive research grants annually of \$3,000 and \$1500 respectively.
- Arts Research Center Opportunities: <http://arts.berkeley.edu/opportunities/>
- Townshend Center for the Humanities:
 - Provides multiple funding opportunities for faculty and students: <http://townsendcenter.berkeley.edu/opportunities>

UPCOMING CHANGES

PENDING INCREASES IN ENROLLMENT

Discussions are underway with central campus administration to increase enrollment in the M.Arch Program. There is a proposal from the campus administration to provide additional revenue to the college once an agreed upon dollar threshold in tuition and PDST is hit each year. No details are known at this time, but a plan will be developed to manage impact of these changes once more information is available.

PENDING INCREASES IN FUNDING

In addition to the possible increase in revenue resulting from the proposed increase in PDST students and change in revenue sharing mentioned above, there is a chance the Professional Degree Supplemental Tuition may increase as much as 5% next year after consulting with CED faculty and graduate students. The college is responding to a call from the University of California Office of the President for proposals to increase the PDST. Any increase larger than 5% would need to be approved

by the University of California Regents. Up to a 5% increase can be approved by the President of the University of California. If approved, the maximum increase to the PDST would be from \$6000 to \$6300 per year.

CHANGES TO FUNDING MODELS

INSTRUCTION – TEMPORARY ACADEMIC SUPPORT

In the past, there was a formal process to request Temporary Academic Support (TAS) funding needed to cover temporary instruction costs such as lecturers & graduate student instructors (GSI's) to teach required curriculum not taught by ladder faculty. In 2010, the funding for TAS was frozen at the level funded in the prior year. This has been a financial burden for Architecture given the considerable faculty salary savings (ladder rank faculty taking a leave without pay) that year leading to a smaller than normal request for Temporary Academic Support. In addition, our instruction costs have gone up during that time even though funding has been frozen.

Up to now funding reserves have covered this deficit. We are in the midst of developing a plan to address this shortfall by reducing lecturer and GSI appointments as much as possible.

There are at least three main causes of the funding shortfall. First, the department is now responsible for paying faculty benefits and GSI fee remission at an amount greater than the amount reimbursed by the university for that purpose. Second, there is a UC system-wide reduction in hiring of ladder rank faculty members. Third, an undergraduate curricular revision to increase the number of required studios thereby increasing the need for additional lecturers.

For the 2015-16 academic year the department is hiring temporary instructors and graduate student instructors where possible to reduce expenses. In addition, we are working to resolve the past underfunding of benefits and to correct the business process of benefits funding.

BENEFITS AND FEE REMISSION

The funding model for benefits and fee remission has changed drastically since the accreditation visit in 2010. Prior to 2011, the central campus reimbursed departments for all costs related to faculty benefits and GSI fee remissions. In 2011, the campus decentralized benefits funding and handed out both permanent (annually recurring) and in-year resources to pay for benefits. The funding amounts were based on the department's average cost of benefits for the 3 years prior to decentralization plus 3%.

In addition, in fiscal year 2012-13, the campus moved from individually charged benefits to a composite benefits rate. There are now 4 benefits rates that are charged as a percentage of salary expense.

- Academic Titles (34% in FY15)
- Staff Titles (42.1% in FY15)
- Limited Benefits (17% in FY15)
- Student Titles (0%)

Each year the federal government sets new benefits rates. In response, the campus sometimes gives additional funding when rates go up, but this is not guaranteed.

OVERHEAD

There are no changes to the funding model for overhead that would affect the department.

FACILITIES

Any changes to the funding model for facilities would not affect the department, as the college manages facilities projects.

DEVELOPMENT CAMPAIGNS

The College of Environmental Design 2014-15 annual report is located at:

http://ced.berkeley.edu/downloads/annual_reports/2015-16_CED_Annual_Report.pdf

Earlier versions of the report are located here:

2014-15 http://ced.berkeley.edu/downloads/annual_reports/2014-15_CED_Annual_Report.pdf

2013-14 http://ced.berkeley.edu/downloads/annual_reports/2013-14_CED_Annual_Report.pdf

2012-13 http://ced.berkeley.edu/downloads/annual_reports/2013-14_CED_Annual_Report.pdf

A few project highlights from the report are listed below.

FLEX ARCHITECTURE STUDIO

The campus offered a 2:1 fundraising match to help fund a pilot flex studio project and the college successfully raised \$500,000. The project will commence in May 2016, redesigning the 7th floor studio, which will be used by all 3 CED departments. The goal is to complete the project in time for the 2016-17 school year. The redesign will include flexible furniture systems, increased pin-up and review space, disbursed power systems in the floor, and a new critique space with advanced AV technology. This pilot project should lead to further redesign and renovation of other architecture studio floors.

NETWORKED SPACES

- Second Floor Lobby
 - Funding was also secured to renovate the second floor lobby and transform it into a modern multi-use space for reviews, study groups, receptions, and general congregating. There will also be a wall with multiple screens displaying faculty and student work and announcing upcoming events. The space was designed by Professor Raveevan Choksombatchai and construction began in summer 2015.
- Restaurant
 - Funding has been secured and plans are underway to renovate the existing café and outdoor patio area and award-winning chef Charles Phan, of the famed San Francisco restaurant [The Slanted Door](#), will create a unique restaurant in Wurster Hall. There will be a revenue sharing agreement with the college.

I.2.4 Information Resources

The Environmental Design Library

The Environmental Design Library, a subject specialty library within the UC Berkeley Library system, is one of the premier design libraries in North America. It supports the research and instructional needs of the three departments that make up the College of Environmental Design: Architecture, Landscape Architect and Environmental Planning, and City and Regional Planning. The Library's collection includes nearly 210,000 monographic volumes and subscriptions to 250 print serials. Students and faculty also have full access to the UC Berkeley Library's vast collection of more than 11 million volumes, over 1200 electronic databases, and tens of thousands of electronic journals.

The library's strengths in architecture include history, theory, and practice; housing; vernacular architecture; building science; structures and construction; green design and sustainable architecture; social factors in architectural design, architecture in developing countries; and design methods and processes. Our rare book collection of over 5,000 volumes contains early treatises, limited editions, materials with original reproductions or fine bindings and artists' books; the oldest volume dates to 1511. The rare book collection includes materials from the libraries of John Galen Howard, Beatrix Farrand, Mai Arbegast, Frederick Law Olmsted and F.L. Olmstead, Jr., Greene and Green, and William Charles Hays, among others and is housed in a specially equipped, climate controlled area in Wurster Hall. A significant number of older books and journals that are not considered rare are in storage off campus and can be recalled within 48 hours. The library collects at the research level – as defined by the American Library Association – in every aspect of architecture taught at UC Berkeley.

The College of Environmental Design provides the space and the University Library provides funds for staff and collections. Acquisition and cataloging of materials are provided through centralized technical

service operations at UC Berkeley's main library. The University Library catalogs according to standard formats and our holdings are included in national catalog databases, the ten-campus online catalog, and the campus catalog, *OskiCat*. Borrowing privileges are posted at <http://www.lib.berkeley.edu/using-the-libraries/borrow> and include the ability to request a book from any of Berkeley's 25 libraries and have it delivered directly to the Environmental Design Library for pick-up.

The Environmental Design Library is staffed with 1.0 FTE librarian; 2.0 FTE library assistants; and 2.5 FTE student assistants.

- David Eifler, Environmental Design Librarian (1.0 FTE)
- Dori Hsiao, Operations Manager (1.0 FTE)
- Molly Rose, Circulation and Reserves Supervisor (1.0 FTE)

David Eifler has ten years of experience as a librarian and holds a second Masters degree in City and Regional Planning. Our two full-time library assistances are both college graduates, one of whom has a Masters of Library and Information Studies, and each has nearly 15 years of library experience. They are responsible for processing materials and supervising circulation among other duties. Written job descriptions are available for all. In addition to UC Berkeley staff development programs, the Library makes available funds (\$600 in 2014/15) for all staff to attend relevant conferences, workshops, or continuing education courses.

EVALUATION AND ASSESSMENT

The UC Berkeley Library spends more than \$12 million on an ever-increasing number of electronic resources and databases currently providing access to over 1200 databases including the Avery Index, Art Source, OnArchitecture, Compendex, CuminCAD, Material ConneXion, and ARTstor. The Environmental Design Library has 210,000 volumes, acquires 2,500-3,000 volumes annually, and subscribes to 250 print serials from around the world. The collection is actively curated and volumes not circulated in the past 10 years are moved to storage. Authority for selection and expenditure rests solely with the librarian, although faculty and students are regularly consulted and encouraged to recommend titles.

Berkeley faculty and students also have access to 11 million volumes on the Berkeley campus, 35 million volumes throughout the University of California 10-campus system, and extensive Inter-Library Loan borrowing from libraries around the world. Books from other UC campuses can be requested online at any time and generally arrive within 48 hours. Requests for articles are generally fulfilled with digital copies emailed to the patron within a day or two. The Environmental Design Library checked out 20,500 items in the 2014-2015 academic year, making it the highest circulating subject specialty library on campus. Library attendance is up 30% from the 2009 NAAB report to 130,000 annual visits or a weekly average of 2,500 visits.

To meet the mission of supporting the College of Environmental Design's instructional and research needs, the librarian works closely with faculty to ensure the collection meets the pedagogical and research goals of the curriculum. Faculty is informed by email when new titles in their area of interest are procured. The Library supports each new faculty member by providing \$3000 shortly after their arrival to campus to build the collection in their specific research areas. The Library also maintains electronic and print recommendation forms to ensure that all members of the academic community have input into the selection process.

UC Berkeley librarians have academic standing, excellent salaries and benefits, and written position descriptions. The librarian regularly teaches research skills to College of Environmental Design classes, increasing from 48 in 2009 to 54 in 2014, in which nearly 1,500 students attended. The Environmental Design Library answered 1,600 questions at our reference desk, responded to another 200 email queries and held 65 hour-long research consultations last year. The Environmental Design Library also maintains and regularly updates 75 research guides, which can be viewed at: <http://guides.lib.berkeley.edu/environmental-design-library>. Topics include:

- Building Code and Regulatory Resources
- Construction and Design Guide
- Image Sources for the Built Environment
- Sustainable Design Resources
- Thesis and Dissertation Research in Environmental Design
- Vernacular Architecture

The library also maintains course reserves. Over 500 monographic items were on reserve in the 2014-2015 academic year. Approximately 250 books per semester are placed on course reserve and another 50 are on permanent reserve due heavy use. The library has two self-service scanning stations that provide free scanning to flash drive and connect with one black and one color printer. The library's 13 public computers also connect to the printers. The Environmental Design Library also has a high-resolution scanner for rare books and a fee-based campus-wide photographic reproduction service is also available.

During the economic downturn of 2009, library hours were reduced to 60 per week for the academic year, but have subsequently been increased to 73 hours a week (Monday – Thursday from 9AM – 10 PM, Friday from 9AM – 5PM, Saturday from 1-5 PM and Sunday from 1–10 PM).

ENVIRONMENTAL DESIGN LIBRARY BUDGET, 2014-2015 (as of 6/7/15)

Collection Funds	Available Funds	Expenditures/ Encumbrances	Use
Monographs (state funds)	\$136,642	\$116,238	books
Serials (state funds)	\$58,639	\$51,391	journals
New faculty start-up (state)	\$20,595	\$8,379	books
Donations	\$2,382	\$659	books
Endowments	\$47,956	\$42,131	books and journals
Total Collections	\$266,215	\$218,799	
Operational Funds (1)			
Academic Staff (state)	\$93,648	\$93,648	1 librarian salary (and benefits)
Professional Staff (state)	\$140,429	\$140,429	2 staff salaries (and benefits)
Student assistants (state)	\$60,848	\$60,848	2.5 FTE student wages.
Total Operations	\$294,924	\$294,924	
Other			
Undesignated gift funds thru College	\$15,413	\$10,200	Furniture, exhibits
Elizabeth Byrne Endowment Funds	\$1,627	\$0	
TOTAL	\$578,179	\$523,923	

(1) Includes salary and all associated benefits; does not include 50% salary of Environmental Design Archivist paid for by the Library.

ISSUES AFFECTING THE OPERATION OR SERVICES

The Environmental Design Library has maintained impressive levels of service to faculty and students and maintained collection development despite a reduction in the number of librarians from 2.3 FTE in 2009 to 1.0 FTE in 2015 and from 3.0 FTE to 2.0 FTE professional staff during the same period. This reduced level of staffing has persisted for four years and indications of staff fatigue are becoming apparent. A recent UC Berkeley Library reorganization should alleviate some of the administrative responsibilities of the librarian and reorganize technical services and circulation procedures to help address this issue.

State support for library collection funding has been maintained at 2009 levels which has necessitated the use of endowment funds for standard monographic and journal purchases and diminished the Environmental Design Library's ability to expand our special collection of rare and unique items. This has been compounded by the rapid increase in the price of serials (print and electronic) which has also limited our ability to purchase print monographs. Without additional financial support, the collection will continue to be impacted.

Environmental Design Archives

DESCRIPTION OF THE INSTITUTIONAL CONTEXT AND ADMINISTRATIVE STRUCTURE

The Environmental Design Archives houses Northern California's premier collection of historic architecture and landscape architecture records—primary sources such as design and working drawings, photographs, correspondence, and selected artifacts—as well as the records of other design fields, and the records of the Department of Architecture and the College of Environmental Design. Begun in the 1950s with the acquisition of Bernard Maybeck's personal papers and project records, for many years, faculty directors supervised acquisitions and scholarly access to the collection. In 1998, a large grant from the Getty Foundation to the College allowed the Archives to hire its first full-time professional staff and initiate the development of a professional archival program. Since then, the Environmental Design Archives' holdings—and their accessibility to students and scholars—have increased dramatically. The Archives maintains a dynamic website <http://archives.ced.berkeley.edu/> that includes collections information but also online exhibits, blogs, and other social media such as Instagram and Facebook.

Archives' collections are useful both for historical research, teaching, inspiration, and preservation, and as examples of past and recent design and graphic processes and practices. The Archives' own description on its web site states: The Environmental Design Archives is committed to raising awareness of the significant architectural and landscape heritage of Northern California and beyond through collecting, preserving, and providing access to the primary records of the built environment of the region and landscaped environment of the world. The work of most of the San Francisco Bay Region's historically significant architects and landscape architects are represented in the collections of more than 200 architects and firms. These collections spanning more than a century, 1890-2014, contain drawings, plans, specifications, photographs, audio-tapes, personal papers, business records, furniture, art, models, and artifacts. The Environmental Design Archives provides primary source material for scholarly research, teaching support, preservation, and public service, and actively encourages and promotes the use of its collections.

The Archives holds the records of California's important early architects of the First Bay Region Style (ca. 1890-1917) including John Galen Howard, Bernard Maybeck, Julia Morgan, Ernest Coxhead, and Willis Polk. Also well documented are the Second Bay Tradition (1928-1942) originated in the works of William Wurster, Clarence Tantau, and Gardner Dailey; and the Third Bay Tradition, which flourished from the mid 1940s through the 1970s, as seen in the designs of Joseph Esherick and EHDD (Esherick, Homsey, Dodge & Davis), WBE (Wurster, Bernardi & Emmons), Ernest Kump, Vernon DeMars, William Turnbull, MLTW (Moore, Lyndon, Turnbull & Whitaker) and others. More recent architects documented in the Archives include Alice Ross Carey who specialized in historic preservation, Warren Callister, Cathy Simon, Anshen & Allen, Marquis & Stoller, Dan Solomon, and Oakland & Imada who specialized in Eichler developments. The Environmental Design Archives also holds the records of Edith & Brian

Heath/Heath Ceramics, and work of architectural photographers such as Phillip Fein, Roger Sturtevant, Morley Baer, Phil Palmer, Ernest Braun, Roy Flamm, Jerry Bragstad, and others.

Waverly Lowell (FSAA, MA, MLIS), is the Curator of the Archives, working with Christina Marino (MLIS), Reference & Outreach archivist, Emily Vigor (MA, MLIS) Collections Archivist, and Cailin Trimble (B Arch), Assistant Archivist and Designer. Lowell is a Fellow of the Society of American Archivists and recipient of the Distinguished Librarian Award, Librarians Association of the University of California, Berkeley, and the California Heritage Preservation Commission Archivist Award of Excellence. Only the Curator's salary is paid for with University funds; all other costs have been met with other sources of funding. This includes reference, exhibition, and publication fees; gifts and public grants (NEH, NHPRC) as well as grants from several endowments managed by the Departments of Architecture and Landscape Architecture. The Archives also maintains a small Friends group. The EDA reference services and research room is housed in Wurster Hall as are a small percentage of the collections, the bulk of the collections and workspace is housed north of campus in Richmond, CA.

EVALUATION OF INFORMATION RESOURCES

Archives staff offers class presentations that introduce students to its holdings, policies, and services and identifies materials for course assignments or research. The staff also works with faculty to locate material for instruction and research, or to coordinate students' use of holdings. Staff will tailor orientations to the subject or objectives of a specific course. To promote the collections and reach a broader community the Archives developed a book series called Berkeley|Design|Books. These are:

- Harris, Dianne. *Maybeck's Landscapes: Drawing in Nature* (2005), William Stout Publishers
- Treib, Marc. *The Donnell and Eckbo Gardens: Modern California Masterworks* (2005), William Stout Publishers
- Rainey, Reuben and JC Miller. *Modern Public Gardens: Robert Royston and the Suburban Park* (2006), William Stout Publishers
- Treib, Marc. *Appropriate: The Houses of Joseph Esherick* (2008), William Stout Publishers
- Lowell, Waverly B. *Living Modern: A Biography of Greenwood Common* (2009), William Stout Publishers
- Miller, Kristine. *Almost Home the Public Landscape of Gertrude Jekyll*, (2013), Architectura & Natura Press
- Shanken, Andrew. *Into the Void Pacific: Building the 1939 San Francisco World's Fair*. (2104) University of California Press

In addition, the Archives generated the 2010 book *Design on the Edge: A Century of Teaching Architecture at the University of California, Berkeley, 1903-2003*, that was used to generate sections of this report, still another example of the Archive's contributions to our work within the Department. In conjunction with the Environmental Design Library, Archives staff also regularly curate and install exhibits in cases within the Environmental Design Library and in a small display case in the elevator lobby that acts as a foyer for the Library. These exhibits are listed below. The Archives staff regularly put these exhibits online and also create digital-only exhibitions <http://exhibits.ced.berkeley.edu/> Digital only exhibits include *The Work of Earl Nisbet*, *Season Greetings* featuring holiday cards created by designers, and *It's On My Desk* 12 blotters created by Allan Jacobs. Public talks or panels on related subjects are held in conjunction with the exhibit openings. The Archives also publishes *Tracings*, a semi-annual newsletter

<http://archives.ced.berkeley.edu/news>

For more on the Archives, go to <http://archives.ced.berkeley.edu/>

SIGNIFICANT PROBLEMS AFFECTING THE OPERATION OR SERVICES, WITH IMPROVEMENT RECOMMENDATIONS

The greatest challenge for the Archives is receiving funding from the College of Environmental Design to support 100% of the Curator's salary. Presently 50% is paid by UC Berkeley's Main Library which receives staff time from the EDA and the VRC to support reference services in the Environmental Design Library. It would be beneficial to the Department if funding were committed to insure permanent staffing

for reference, access, teaching, and exhibitions. In addition, as the Collections increase in number and complexity particularly with the acquisition of born digital design records; permanent funding for an archivist with special skills becomes increasingly critical.

The Visual Resources Center

Images, regardless of format, have always played a critical role in architectural pedagogy and the Visual Resources Center (VRC) is central to that role. <http://ced.berkeley.edu/research/visual-resources-center/>. The VRC is a library of teaching and research images, primarily serving the College of Environmental Design at the University of California, Berkeley. Managed by Jason Miller (MLIS), librarian and photographer, the VRC holds more than 82,000 digital images, over 350,000 35mm slides, and 37,000 lantern slides depicting architecture, landscapes, cities, and related material. These images represent original photography taken by designers of their own work, travel locations, and other subjects of interest; and “copy” photography created from published sources for teaching and presentations. There are also collections of CED student work.

Primarily it focuses on producing digital images for teaching and publication and has been regularly renamed and reorganized to reflect shifting educational needs:

“In 1964, when the College of Environmental Design moved into Wurster Hall, a separate library was formed to collect and care for these visual materials, called the Visual Aids Collection. It consisted of slide and photograph collections formerly controlled by the Environmental Design Library. In 1980, the Visual Aids Collection was renamed the Architecture Slide Library, and in 2001 was renamed, as the Architecture Visual Resources Library. In 2008, reflecting the collection’s importance to all the departments in the College, the name changed once again to the College of Environmental Design Visual Resources Center.”⁵⁴

The teaching collection is accessed primarily through ARTstor. The SPIRO website, currently in the process of being replaced, still serves as a visual catalog to the slide collection as well as a portal for finding digital images is in the process of being replaced. In addition, portions of the VRC collections are included in other digital collections available to faculty and students including the UC Shared Images Project and the California Digital Library. The Visual Resources Center also holds and cares for physical collections comprised of the teaching slide collections of the three departments in the College of Environmental Design and personal collections of teaching and research slides from former and current faculty. These collections include: The Harold Stump World Architecture Slide Collection, Joseph Esherick’s Travel Slides (1962-1979), the Denise Scott Brown Collection of teaching slides (1965), Warren Callister’s project and travel slides, to name just a few. In addition, the VRC has begun hosting virtual exhibits beginning with a Digital Archive of the Architecture of Charity: Venice c. 1100-1797 <http://vrc.ced.berkeley.edu/exhibits/show/architectureofcharity>

The VRC provides services essential to the Department of Architecture and the CED. Primary among these is producing digital images for teaching, research, and publication. Using state-of-the-art digital cameras, transparency scanners, and flatbed scanners the VRC creates digital images from publications, archival and original documents and drawings, film transparencies, models and exhibits, and on location subjects. In addition, the VRC provides do-it-yourself scanning stations for faculty and students. In addition to creating and cataloging digital surrogates for Artstore/Spiro, the VRC scans original archival material for EDA researchers, EDA exhibits, and the EDA web site.

Miller teaches classes on using Artstor; and image searching techniques and resources as well as responding to in-person researchers. The VRC also provides research assistance to help faculty and students locate images of the built environment, for study, teaching, or publication, and assists them in the use and management of images once they have been found. This includes limited help with digital asset management, image formatting and resizing, and use of images in print and digital contexts. Further services include advice on copyright in regards to image use and referrals to other appropriate repositories for visual materials.

SIGNIFICANT PROBLEMS AFFECTING THE OPERATION OR SERVICES, WITH IMPROVEMENT RECOMMENDATIONS

Following changes in technology and budget, the staff in the VRC was reduced to a single person. However, there remains a need to collect, create, and manage the Colleges and Departments digital assets. Another full or even half FTE would allow the VRC to be more diligent in documenting student work, promoting its services and collections, and digitize more archival material and 35mm slides.

ARTstor is a nonprofit digital library of more than one million images in the arts, architecture, humanities, and social sciences with a suite of software tools to view, present, and manage images for research and pedagogical purposes. Community-built collections comprise contributions from outstanding museums, photographers, libraries, scholars, photo archives, and artists and artists' estates....ARTstor is available by subscription to nonprofit organizations, and fees help to sustain the ongoing maintenance and development of the collections and software for the Digital Library.

EXHIBITS IN THE LIBRARY 2010-2015

Originating Unit	Date	Curator	Title
Env Design Library	Spr 2010	Elizabeth Byrne	Stock Options: Houses for Everyone
Vis Resources Cntr	Sum 2010	Jason Miller	It's Not Just Black & White: Photographing the Built Environment
Env Des Archives	Fall 2010	Miranda Hambro	Render Unto God
Env Design Library	Wint 2011	Elizabeth Byrne	Artists Books
Env Des Archives	Spr 2011	Waverly Lowell	All Their Own: Designing for Themselves and Each Other
Env Des Archives Peace	Sum 2011	Gar-Yin Lee	Gardens for Peace: The National Garden Competition
Env Des Archives	Fall 2011	Miranda Hambro	Off Hours: Environments for Entertainment
LAEP	Wint 2012	Joe McBride	California Landscapes of Burt Litton
Env Des Archives	Spr 2012	Emma Keefe	Beatrix farrand
Env Des Archives	Sum 2012	C. Reif/J. Sanchez	Tools of the Trade
Env Des Archives	Fall 2012	Miranda Hambro	Hidden Engineer: The Designs of Julia Morgan
Env Des Archives	Spr 2013	Waverly Lowell	Infrastructure: Designed Necessities
Env Des Archives	Sum 2013	Miranda Hambro	John Galen Howard
Env Des Archives	Fall 2013	Cailin Trimble	Planning with Nature
Env Design Library	Spr 2014	Elizabeth Byrne	Artists Books II
Env Des Archives	Sum 2014	J. Durant/E. Vigor	Handful of Clay: The Legacy of Edith Heath
Arch Dept	Fall 2014	Greg Castillo	Design Radicals: Creativity & Protest
Env Des Archives	Spr 2015	W. Lowell/C. Marino	Designing People
Vis Resources Cntr	Sum 2015	Jason Miller	Paper, Rock, Pixels

I.2.5 Administrative Structure & Governance

Since the 2010 visit, a number of support positions have shifted under the administrative supervision of the CED Dean's Office and are no longer controlled by the Department of Architecture. This includes Human Resources, Academic Personnel Advisor, IT, AV, the Fabrication Shops and the Financial Analysis unit. In addition, the U.C. Berkeley campus is transitioning from a highly distributed administrative structure to a "Shared Services" model. Our shared services team is called ERSO and is housed in the College of Engineering. They provide services including information technology support and transactional support for human resources, payroll, purchasing, and other business and finance functions.

Department of Architecture Staff groups are:

- General Administration

2.0 FTE career staff assisted by two students @ 0.25 FTE

Management Service Officer (MSO), Joyce Jennings (1 FTE)

Special Projects Coordinator, Camille Thoma (1 FTE)

- Graduate Student Affairs

2.0 career staff FTE

Graduate Office Manager and Student Affairs Officer, Lois Koch (1 FTE)

Graduate Admissions Office, Sara McCarthy (1 FTE)

- Scheduling

0.75 FTE

Scheduler, Michael de Leon (0.75 FTE)

Architecture faculty members are given many opportunities to be involved in the governance of the Department of Architecture and in the College of Environmental Design. Faculty members routinely rotate through Ad Hoc Committees for Promotion and Tenure, the B.A. in Arch, M.Arch and, MS/PhD Committees, Faculty Search Committees, Lectures and Exhibitions Committee, Grievance Committee or serve as Architecture Equity Advisor. Department committee assignments are made by the chair. All major decisions are confirmed by a vote or informal polling of ladder rank faculty members at faculty meetings. The following are standing committees: MS/Ph.D. Committee, M.Arch Committee, B.A. in Arch Committee, Grievance Committee and Lectures and Exhibition Committee. The MS/PhD, M.Arch and B.A. in Arch Committees are charged with curriculum development, admissions and scholarships, prizes and awards for their given program. The department initiates ad hoc committees to oversee faculty searches, merit reviews and promotions as needed. Curricular development is guided by extensive student evaluations of coursework, public reviews and exhibitions of student work.

The College of Environmental Design has at least one Architecture faculty serve on the Executive committee and one on the CED Library Committee. Currently, Renee Chow, Professor of Architecture, serves as the Associate Dean for Undergraduate Studies for the College. Susan Ubbelohde, Professor of Architecture, is Associate Dean for Faculty Affairs.

The Administrative Organization Chart for the College of Environmental Design with Department of Architecture's positions highlighted.

Realm A: Critical Thinking and Representation

Critical thinking and representational skills are core attributes to a Berkeley education in architecture. The department's entire history is based on understanding architecture as a cultural artifact both born of and responsible human activities and desires. The care for and ability to process observations, focus relevant questions and then communicate positions in written, drawn/modeled or oral arguments. Whether the individual course focuses on design, humanities or technology issues architecture faculty would ascribe these objectives to every one of their courses

A.1 Professional Communication Skills

Arch200C Representational Practice in Arch Design deals exclusively with an introduction to drawing/modeling conventions and experiments.

Arch 230 Adv. Arch Des Theory & Criticism and Arch 270 History of Modern Architecture introduce students to the array of relationships between cultural activities and architecture over time. Via lectures, discussions, tests and reports students are asked to absorb, evaluate then communicate findings in written and oral arguments.

A.2 Design Thinking Skills

Arch 230 Adv. Arch Des Theory & Criticism introduces students to a range of diverse cultural trajectories and Arch 204A Thesis Seminar asks them to situate their work relative to those and other arguments.

A.3 Investigative Skills

Arch 204A Thesis Seminar and Arch 204B are at their core summary and projective in nature. Summary in that the attempt building on the foundation of all of the respective coursework and projective in that the projects are self-defined and aimed at propelling the student into a future in architecture of their choosing. Both courses require a compiling and sifting through the wealth of information on a particular topic and proposing a well-considered project and trajectory forward.

A.4 Architectural Design Skills

Arch 200A Intro to Architecture 1 and Arch 200B Intro to Architecture 2 through increasing complex projects introduce basic compositional and spatial relationships. (All studios in the graduate sequence participate in building design skills.) Arch 240 Adv. Study of Energy & Environment introduces environmental concerns and asks students to embrace solar orientation, day lighting and envelope design as a determinant of architectural form.

A.5 Ordering Systems

Arch 200A Intro to Architecture 1 introduces basic formal and spatial typologies and Arch 200B Intro to Architecture 2 employs a case study approach to initiate more complex formal/spatial relationships and more substantial building programs.

A.6 Use of Precedents

Arch 270 History of Modern Architecture via a study of historical projects lays the foundation for the study of precedents. Arch 200B Intro to Architecture 2 examines multiple projects at the beginning of the semester and asks students to build upon that acquired knowledge. Arch 204A Thesis Seminar incorporates historical and contemporary research into the formation of a thesis project.

A.7 History and Global Culture

Arch 270 History of Modern Architecture examines architectural production in both writings and buildings. Arch 230 Adv. Arch Des Theory & Criticism examines diverse forms of cultural production and the corresponding links to built form.

A.8 Cultural Diversity and Social Equity

Arch 270 History of Modern Architecture looks at architecture within a constellation of social and economic factors crucial to its design and physical realization. Arch 230 Adv. Arch Des Theory & Criticism situates architectural theory, and its relation to practice by tracking the way architects

adapted their ideas to changing social, economic and political contexts. Both courses include voices from diverse locales. Arch 207D introduces the values embedded in design and the consequences for people, their behavior, and feelings; working knowledge of the concepts in person, environment relations, and understanding how these concepts vary by diverse subcultures. In addition students learn to use ethnography as a means of developing an architectural program.

Realm B: Building Practices, Technical Skills, and Knowledge

Department faculty expertise and research falls into three general categories: design, history/theory & society and building science and technology. Of our total of 30 ladder rank faculty 6 are devoted to building science & technology concerns and another 16 to building design and practice. Suffice to say that the technique and responsibility of educating students to be thoughtful, capable and respectful stewards of the built environment is central to our mission. In almost all of the following student performance criteria responsibility for student knowledge is shared between specific technical/professional courses and design studios.

B.1 Pre-Design:

Arch 200B Intro to Architecture 2 introduces a conventional program and requires students to develop and augment a preliminary program set. In Arch 201 Architecture of Urbanism has students attend to programming, infrastructure, and development goals at scales beyond the individual building and addresses program and design and multiple scales. Arch 203 Integrated Design asks students to develop a fully developed program from an outline. Arch 204A and B Thesis Seminar and Studio requires students to research and define an architectural program in the most comprehensive sense.

B.2 Site Design:

Arch 200B Intro to Architecture 2 introduces orientation and context through a conventional site and restraints. Arch 201 Architecture of Urbanism stresses and understanding of relationships between ecological, urban, building and detail scales. Arch 240 Adv. Study of Energy & Environment introduces technical issues of ecology, climate, and building orientation. Arch 204A and B Thesis Seminar and Studio requires students to fully integrate concerns of the context with architectural solutions.

B.3. Codes and Regulations:

Arch 240 Adv. Energy and Environment , Arch 260 Construction and Arch 207D Cultures of Practice introduce basic building code and regulatory concerns. Arch 203 Integrated Design builds on these introductions, explores them in greater depth and incorporates responses in the studio projects.

B.4 Technical Documentation:

Arch 200C introduces basic drawing/modeling conventions and these skills are further developed in all studio courses. Arch 260 Construction exposes students to technical drawing techniques and skills. Arch 207D Cultures of Practice introduces construction documents and specifications. Arch 203 Integrated Design asks students to prepare an outline specification.

B.5 Structural Systems:

Arch 150 Structures introduces students to structural forces of all types as well as the selection of appropriate structural systems and materials. Similarly, Arch 260 Construction looks at performance and use of common structural materials. Arch 203 Integrated Design builds on these introductions, explores them in greater depth and incorporates solutions in the studio projects.

B.6 Environmental Systems:

Arch 240 Adv. Energy and Environment presents quantitative and qualitative methods for assessing energy performance during design. Students utilize emergent software ranging from simple to complex to assess the performance of building components and whole building designs..

Arch 203 Integrated Design builds on these introductions, explores them in some depth and incorporates responses in the studio projects.

B.7 Building Envelope Systems and Assemblies:

Arch 260 Construction examines systems that make up the skin, or envelope, of the building that enhance building performance. Arch 203 Integrated Design builds on this knowledge and incorporates solutions in the studio projects.

B.8 Building Materials and Assemblies:

Arch 260 Construction examines materials that make up the exterior finishes in the walls, roof, windows and doors as well as interior materials that enhance building performance. Arch 203 Integrated Design builds on this knowledge and incorporates solutions in the studio projects.

B.9 Building Service Systems:

Arch 260 Construction introduces service systems and asks students to perform documentation of local buildings under construction. Arch 203 Integrated Design builds on this knowledge and incorporates solutions in the studio projects.

B.10 Financial Considerations:

Arch 260 Construction provides a brief overview to financial considerations in building including life-cycle considerations. Arch 207D provides a focus on financial issues focusing on both project and practice management techniques and skills with specific lectures devoted to Financial Management of an Architectural Firm, Construction Cost and Project Close Out.

Realm C: Integrated Architectural Solutions

The department has taken past concerns with Integrated Architectural Solutions, (formerly Comprehensive Design) to heart. Many of our recent curricular revisions have been aimed at providing a more focused and effective course in responding to the responsibilities of this realm. It is important to note that we welcome the revisions to the Conditions for accreditation that allow the concerns of Integrated Architectural Solutions to be shared by multiple classes. Comprehensive Design used to be positioned in the fall of the penultimate year before students had taken the normally preparatory coursework, in structures, environmental technologies, construction as well as professional practice. Integrated Design is now in the student's final year after the necessary background in technical and professional courses has been secured. Additionally and importantly, starting in F2015 we asked faculty in structures and environmental technologies to participate in the design studio on a full time basis. Building on what we learned last year we've modified the teaching team somewhat this year by adding a part-time faculty to specifically assist with mechanical system and building envelope design. The structures faculty remains a full-time participant. Given the instrumental relationships between the technical, history/theory, thesis and re-imagined Integrated Design courses we are confident that student understanding and ability with this realm has substantially improved.

C.1 Research

A form of research is a requirement in essentially every class. Arch 230 Adv. Arch Des Theory & Criticism assists students in developing research skills by, in addition to short reading responses and in-class presentations, asking each student to complete a related case study essay. Arch 270 History of Modern Architecture asks students to understand the goals, limitations and constructed nature of an architectural canon and of the case study method; assess and compare case study buildings as propositions about the character of modern society and its values, culture, economy, and technology; place case study buildings within the context of modernist movements in architecture and compare design movements with regard to style, theory and discourses concerning the nature of modernity.

At the core of A204A is an independent, largely self-directed project. Theoretical and applied research methodologies gleaned from prior coursework form the foundation of this endeavor.

C.2 Integrated Evaluations and Decision-Making Design Process

Arch 150 Structures and Arch 260 Construction introduce students to evaluative decision-making with regard to building system and material choices.

Arch 207D Cultures of Practice introduces students to the principles of both practice and project management.

Arch 203 Integrated Design synthesizes design judgments across spatial, material, behavioral and cultural concerns.

C.3 Integrative Design

While Arch 150 Structures, Arch 240 Adv. Energy and Environment and Arch 260 Construction lay the foundation for synthetic systems integration Arch 203 Integrated Design applies the broad lessons learned.

Realm D: Professional Practice

Preparing future architects for a career in architecture is a responsibility long shared between the academy and the profession. We endeavor to provide an outline of possible professional trajectories by faculty examples as well as our required course work. The bulk of the responsibility falls to three courses: Arch 207C Professional Practice Colloq., Arch 260 Construction and Arch 207D Cultures of Practice.

D.1 Stakeholder Roles in Architecture:

Arch 207C Professional Practice Colloq. introduces students through a seminar format to local architects from diverse practices and a range of aspirations. The course is intended to provide a background for students' professional choices.

Arch 260 Construction explicitly addresses professional context for practice: e.g., the relationships between architects and other members of the construction community, and factors that influence these relationships. Arch 207D Cultures of Practice broadly addresses these concerns with a focus on the Client Role in Architecture: Understanding of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains, Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication and Community and Social Responsibility: Understanding of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors of this diversity on the societal roles and responsibilities of architects.

D.2 Project Management:

Arch 207D Cultures of Practice broadly addresses this via sections on: Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods,

D.3 Business Practices:

Arch 207C Professional Practice Colloq. Exposes students to a variety of practice types.

Arch 207D Cultures of Practice exposes student to: Practice Management: Understanding of the basic principles of architectural practice management such as financial management including costing and value engineering, and business planning and practices, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

D.4 Legal Responsibilities:

Given the range of practice types introduced in Arch 207C Professional Practice Colloq. students develop an outline of legal risks and responsibilities.

Arch 260 Construction provides an overview of an architect's responsibilities professional context for practice regarding building codes and legal norm. Arch 207D Cultures of Practice conducts sections on: Legal Responsibilities: Understanding of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service

contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

D.5 Professional Conduct:

Arch 207D Cultures of Practice conducts sections on: Ethics and Professional Judgment:

Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

II.2.1 Institutional Accreditation

Please follow the link to the Western Association of Schools and Colleges Commission Action Letter, dated March 6, 2015

https://www.dropbox.com/s/uvujto3ti7ipy98/Sect.3_II.2.1_UC%20Berkeley_WASC%20Commission%20Action%20Letter_030615.pdf?dl=0

II.2.2 Professional Degrees & Curriculum

The UC Berkeley Department of Architecture offers the Master of Architecture as the only professionally accredited degree. The M.Arch degree consists of a 3-year 72-credit curriculum with the possibility of 2 year, 48-credit program if advanced standing is granted at the time of admission.

	M.Arch	M.Arch	M.Arch (Preprofessional plus)	M.Arch (non pre-professional plus)	
General Studies		No Min/	Defined by baccalaureate required for admission	Defined by baccalaureate required for admission	Defined by baccalaureate required for admission
Open Electives		14	10	10	10
Professional Studies		58	As defined by the program	As defined by the program	As defined by the program
Undergraduate Credits		As defined by the program	As defined by the program	As defined by the program	120
Grad or Upper Div. UGrad Credits	0	30	30	30	90
Total Credits	150	168	168	168	210

M. Arch course distribution – 72 total units:

Fall 1 st Year			Spring 1 st Year		
Arch 200A	Intro to Architecture Studio 1	5	Arch 200B	Intro To Architecture Studio 2	5
Arch 200C	Representational Practice in Arch Design	3	Arch 230*	Adv. Arch Des Theory & Criticism	3
Arch 270	History of Modern Architecture	3	Arch 240*	Adv. Study of Energy & Environment	3
Arch 207A	Arch Lectures Colloquium	1	Arch 207B	Arch Research Colloquium	1
		Semester Units			Semester Units
		12			12

1st Year Total Units: 24

University of California Department of Architecture

Architecture Program Report

September 2015

Fall 2nd Year

Spring 2nd Year

Arch 201	Architecture and Urbanism Studio	5	Arch 202	Graduate Option Studio	5
Arch 260*	Intro to Construction: Graduate	3	Arch 207D*	The Cultures of Practice	3
Arch 150*	Intro to Structures	4		Open Elective(s):	4
		Semester Units			Semester Units
		12			12

2nd Year Total Units: 24

Fall 3rd Year

Spring 3rd Year

Arch 203	Integrated Design Studio	5	Arch 204B	Thesis Studio	5
Arch 204A	Thesis Seminar	3		Open Elective(s):	7
Arch 207C	Prof. Practice Colloquium	1			
		Open Elective(s):			
		Semester Units			Semester Units
		12			12

3rd Year Total Units: 24

* Students with previous educational background in this area may petition the instructor for a waiver. If a student successfully waives this course they must enroll in an elective in the same area.

M. Arch with advanced standing course distribution – 48 total units:

Fall 1st Year

Spring 1st year

Arch 201	Architecture and Urbanism Studio	5	Arch 202	Graduate Option Studio	5
Arch 260*	Intro to Construction: Graduate	3	Arch 207D*	The Cultures of Practice	3
Arch 150*	Intro to Structures	4		Open Elective(s):	4
		Semester Units			Semester Units
		12			12

1st Year Total Units: 24

Fall 2nd year

Spring 2nd year

Arch 203	Integrated Design Studio	5	Arch 204B	Thesis Studio	5
Arch 204A	Thesis Seminar	3		Open Elective(s):	7
Arch 207C	Prof. Practice Colloquium	1			
		Open Elective(s):			
		Semester Units			Semester Units
		12			12

2nd Year Total Units: 24

*Students with previous educational background in this area may petition the instructor for a waiver. If a student successfully waives this course they must enroll in an elective in the same area.

Credit Distribution for NAAB- Accredited Degree

M.Arch Semester Credit Hours

Required Professional Studies 58 units

*Open Electives	<u>14 units</u>
Total	<u>72 units</u>

M.Arch with Advanced Standing semester credits

Required Professional Studies	34 units
*Open Electives	<u>14 units</u>
Total	<u>48 units</u>

*Open electives are graduate level (200 series) or upper division undergraduate level (100 series) courses. These electives may be taken either inside or outside the department.

The Department of Architecture offers the following degrees, in addition to the Masters of Architecture:

- Bachelor of Arts in Architecture
- Masters of Science in Architecture
- Doctor of Philosophy in Architecture

The Department of Architecture does not offer minors or concentrations within the Masters of Architecture degree.

The Department of Architecture program does not offer any off-campus programs.

The Department of Architecture is at the beginning of the process of changing the title of our non-accredited one-year post-professional M.Arch program, Studio One. We understand this change of degree title must be completed by 2018. We have initiated preliminary conversations with Graduate Division and anticipate a 12-month timeline for the process.

The process to change the name of a graduate degree program is as follows:

1. Development of proposal: A proposal to rename a graduate program is developed by the department or group of faculty which has administrative oversight for the program.
2. School/College review: The school/college executive committee reviews the proposal and makes a recommendation to the dean. The dean then forwards the proposal, including his/her recommendation, to the Graduate Division.
3. Graduate Division review: Graduate Division staff notify OPA that a proposal has been submitted for review. The proposal is reviewed by Graduate Division for completeness and adherence to relevant policies. See here for specifics of Graduate Division review. Once that review is complete, the final proposal is submitted to the Graduate Council (GC) for review.
4. Senate review: GC reviews the proposal and determines whether the proposed name change is associated with a fundamental modification of the program, a change in the degree requirements, or a need for substantial new resources. If GC determines that none of those conditions apply, the name change is considered a "simple name change," and the campus has authority to approve the name change after appropriate review and endorsement by the divisional academic senate.
5. Campus administration review: On behalf of the VPAAFW, OPA reviews the proposal and the Senate's recommendations for adherence to campus and university policy, appropriateness to the campus academic plan, enrollment and curricular issues, relevant precedents, etc. OPA solicits Budget Office review of resource requirements for the proposed program and forwards a copy of the proposal to the Vice Provost for Teaching, Learning, Academic Planning & Facilities (VPTLAPF) for review and comment. OPA forwards the proposal, the Berkeley Division's recommendation, and the collected comments to the VPAAFW.
7. Final approval: The VPAAFW reviews the proposal on behalf of the Chancellor. If GC has determined that the proposed action is a "simple" name change, the VPAAFW's decision is final. If

approved,

II.3 Evaluation of Preparatory Education

The Department website lists the complete admission requirements:

<http://ced.berkeley.edu/academics/architecture/programs/master-of-architecture/admissions>

Students admitted to the Master of Architecture program are required to have taken college-level or equivalent mathematics through analytical geometry, and beginning calculus and beginning physics through mechanics. These prerequisites must be completed by the time the applicant enters the graduate program. For those who have taken Advanced Placement (AP) Calculus or Physics in high school, the following scores will satisfy the prerequisites: 5 on the AP Calculus AB exam or at least a 3 on the AP Calculus BC exam; at least a 3 on the AP Physics B exam.

The faculty members of the M.Arch Committee, with staff assistance, make admissions decisions regarding application to the M.Arch Program. Prior to the final M.Arch Committee decisions each applicant is evaluated by a minimum of two faculty members within the department. The faculty reviewers evaluate each applicant's statement of interest, academic transcripts, letters of recommendation, GRE scores and portfolio of creative work. They then grade each applicant on a scale of 1-5 in three areas: statement and letters of recommendation, academic record and portfolio. A summary score is then tabulated along with additional comments and a decision to admit or decline. These scores are then forwarded to the M.Arch Committee where the applications are again reviewed and scored for final determination.

The M.Arch Committee, with input from faculty reviewers, determines whether or not a student is awarded advance placement in the M.Arch Program. This determination is made by a careful examination of the applicant's academic record and the supporting material in their portfolio. Applicants awarded advanced standing must have an undergraduate degree in architecture and a minimum of four weighted studios (usually 5-6 semester credits each) and cover the subjects addressed in A200A Intro to Architectural Design I, A200B Intro to Architectural Design II and A200C Representational Practice in Architectural Design.

At orientation and registration, students awarded advanced standing are informed of the process by which they may waive the following required classes: A150 Introduction to Structures, A230 Introduction to Architectural Theory and Criticism, A240 Advanced Study of Energy and Environment, A260 Introduction to Construction - Graduate, A270 History of Modern Architecture. The individual faculty members who teach these courses determine whether or not the course can be waived based on the syllabus, coursework and grade earned from the previous institution. . If the material from the previous class is sufficient to fulfill the department requirement, the student is allowed to take an advanced course in the same area.

The accepted or denied Waive and Substitute form (<http://ced.berkeley.edu/ced/students/graduate-advising/graduate-forms-documents/>) is then placed in the student's file. Verifying the applicant's general education credits is done by the University Graduate Division where they review the authenticity and legitimacy of the degree and the awarding institution.

II.4 Public Information

II.4.1 Statement On NAAB-Accredited Degrees

Please refer to the ARCH Accreditation page on the CED website <http://ced.berkeley.edu/academics/architecture/about-us/accreditation/> and the Berkeley Bulletin

II.4.2 Access to NAAB Conditions and Procedures

Please refer to the ARCH Accreditation page on the CED website
<http://ced.berkeley.edu/academics/architecture/about-us/accreditation/>

II.4.3 Access to Career Development Information

Please refer to the Career Services page on the CED website
<http://ced.berkeley.edu/academics/architecture/about-us/accreditation/>

II.4.4 Public Access to APRs and VTRs

Please refer to the ARCH Accreditation page on the CED website
<http://ced.berkeley.edu/academics/architecture/about-us/accreditation/>

II.4.5 Public Access to ARE Pass Rates

Please refer to the ARCH Accreditation page on the CED website
<http://ced.berkeley.edu/academics/architecture/about-us/accreditation/>

II.4.6. Admissions and Advising

Application forms and instructions
<http://ced.berkeley.edu/admissions/graduate/applying/>

University application instructions and preliminary graduate school information.
<http://grad.berkeley.edu/admissions/apply/>

Admission Criteria
<http://ced.berkeley.edu/academics/architecture/programs/master-of-architecture/admissions>

Requirements and forms for applying for financial aid and scholarships
<http://ced.berkeley.edu/admissions/financial-aid/>

Please see the following link for information about the CED's student diversity initiatives
<http://ced.berkeley.edu/admissions/diversity/>

II.4.7 Student Financial Information

Departmental Site for Financial Aid
<http://ced.berkeley.edu/admissions/financial-aid/>

Graduate Student Budget 2015-16
<http://financialaid.berkeley.edu/cost-attendance>

Estimating your Financial Aid
<http://financialaid.berkeley.edu/estimate-your-financial-aid>

Please see the following links that demonstrate that the 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.

Graduate Student Budget 2015-16 for Tuition
<http://financialaid.berkeley.edu/cost-attendance>

University Registration Fees breakdown

http://registrar.berkeley.edu/current_students/registration_enrollment/feesched.html

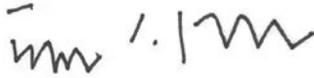
M.Arch Estimated Expenditures

http://ced.berkeley.edu/downloads/finaid/II_4_7_II_4_Department_of_Architecture_Estimated_Expenditures.pdf

III.1.1 Annual Statistical Reports

UC Berkeley does not distinguish between Masters students from the Architecture Department in their statistical reports. (As clarified in a telephone conversation between the Berkeley Architecture Department and Cassandra Pair of NAAB.)

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.



Tom J. Buresh
Professor and Chair of Architecture

III.1.2 Interim Progress Reports

These Interim Progress Reports will be provided directly to the team at the same time as the VTR template and other materials:

- All narrative annual or interim reports submitted since the last visit.
- All NAAB Responses to annual reports submitted between 2008 and 2012.
- In the event a program underwent a Focused Evaluation, the Focused Evaluation Program Report and Focused Evaluation Team Report, including appendices and addenda.

Section 4. Supplemental Material

For the following materials, please visit the DropBox set up by the Dept. of Architecture, <https://www.dropbox.com/sh/4u79e5o4r63g5jw/AAAFSi7HoJ1pSO3m48klczrVa?dl=0>

- Descriptions of all courses offered within the curriculum of the NAAB-accredited degree program.
- Studio Culture Policy
- Self-Assessment Policies and Objectives
- Policies on academic integrity for students (e.g., cheating and plagiarism)
- Information resources policies including collection development
- The institution's policies and procedures relative to EEO/AA for faculty, staff, and students.
- The institution's policy regarding human resource development opportunities, such as sabbatical, research leave, and scholarly achievements.
- The policies, procedures, and criteria for faculty appointment, promotion, and when applicable, tenure.