

Academy of Art University

Interim Progress Report 2015

Instructions and Template

Date submitted to the NAAB: November 30 2015

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1. INSTRUCTIONS AND TEMPLATE GUIDELINES

Purpose

Continuing accreditation is subject to the submission of interim progress reports at defined intervals after an eight-year or four-year term of continuing accreditation is approved.

This narrative report, supported by documentation, covers three areas:

1. The program's progress in addressing not-met Conditions, Student Performance Criteria, or Causes of Concern from the most recent Visiting Team Report.
2. Significant changes to the program or the institution since the last visit.
3. Responses to changes in the NAAB Conditions since your last visit (Note: Only required if Conditions have changed since your last visit)

Supporting Documentation

1. The narrative should describe in detail all changes in the program made in response to not-met Conditions, Student Performance Criteria, and Causes of Concern.
2. Provide information regarding changes in leadership or faculty membership. Identify the anticipated contribution to the program for new hires and include either a narrative biography or one-page CV.
3. Provide detailed descriptions of changes to the curriculum that have been made in response to not-met Student Performance Criteria. Identify any specific outcomes expected to student performance. Attach new or revised syllabi of required courses that address unmet SPC.
4. Provide additional information that may be of interest to the NAAB team at the next accreditation visit.

Outcomes

IPRs are reviewed by a panel of three: one current NAAB director, one former NAAB director, and one experienced team chair.¹ The panel may make one of three recommendations to the Board regarding the interim report:

1. Accept the interim report as having demonstrated satisfactory progress toward addressing deficiencies identified in the most recent VTR.
2. Accept the interim report as having demonstrated progress toward addressing deficiencies but require the program to provide additional information (e.g., examples of actions taken to address deficiencies).
3. Reject the interim report as having not demonstrated sufficient progress toward addressing deficiencies and advance the next accreditation sequence by at least one calendar year but not more than three years, thereby shortening the term of accreditation. In such cases, the chief academic officer of the institution will be notified and a copy sent to the program administrator. A schedule will be determined so that the program has at least six months to prepare an Architecture Program Report. The annual statistical report (see Section 9 of the 2014 Conditions) is still required.

Deadline and Contacts

IPRs are due on November 30. They are submitted through the NAAB's Annual Report System (ARS). Contact Kesha Abdul Mateen (kabdul@naab.org) with questions.

Instructions

1. Type all responses in the designated text areas.
2. Reports must be submitted as a single PDF following the template format. Pages should be numbered.
3. Reports are limited to 25 pages/10 MBs.
4. Supporting documentation should be included in the body of the report.
5. Student work is not to be submitted as documentation for a two-year IPR.

¹ The team chair will not have participated in a team during the year in which the original decision on a term of accreditation was made.

2. EXECUTIVE SUMMARY OF 2013 NAAB VISIT

CONDITIONS NOT MET:

2013 VTR
II.4.5 ARE Pass Rates

STUDENT PERFORMANCE CRITERIA NOT MET

2013 VTR
A.4 Technical Documentation
A.9 Historical Traditions & Global Culture
B.6 Comprehensive Design
B.7 Financial Considerations
C.6 Leadership

CAUSES OF CONCERN:

2013 VTR
Online Program Development
Online Vertical Learning
Online Student Reference Material
Faculty Offices
Onsite References
Student Performance Criteria Coverage
Storage/Archiving

3. TEMPLATE

Interim Progress Report
Academy of Art University
Department of Architecture
M.Arch. [Pre-professional degree + 63 credits]
M.Arch. [Non-pre-professional degree + 87 credits]
Last APR submission: September 7, 2012
Year of the previous visit: 2013

Please update contact information as necessary since the last APR was submitted.

Chief administrator for the academic unit in which the program is located:

Provost: Mimi Sullivan, AIA - Executive Director, School of Architecture

President of the institution: Dr. Elisa Stephens - President of Academy of Art University

Individual submitting the Interim Progress Report: Mark Mueckenheim - Graduate Director, School of Architecture

Name of individual(s) to whom questions should be directed: Mimi Sullivan mimi@saidasullivan.com
/ Mark Mueckenheim MMueckenheim@academyart.edu P.: 415.618.3736 / Joe Vollaro
JVollaro@academyart.edu

Current term of accreditation: 8 year term

Text from the most recent VTR or APR is in the gray text boxes. Type your response in the designated text boxes.

a. Progress in Addressing Not-Met Conditions and Student Performance Criteria

II.4.5 ARE Pass Rates

2013 Team Assessment: These statistics are not yet available for program graduates.

Academy of Art University, 2015 Response: The following information on pass rates was provided on NCARB.org website: 2014: Programming, Planning & Practice #5 Pass Rate: 80.00 / Site Planning & Design #5 Pass Rate: 60.00 / Building Design and Construction Systems #2 Pass Rate: 0.00 / Schematic Design #3 Pass Rate: 67.00 / Structural Systems #2 Pass Rate: 100.00 / Building Systems #3 Pass Rate: 67.00 / Construction Documents & Services #6 Pass Rate: 50.00 // 2013: Programming, Planning & Practice #4 Pass Rate: 0.00 / Site Planning & Design #3 Pass Rate: 33.00 / Building Design and Construction Systems #2 Pass Rate: 50.00 / Schematic Design #2 Pass Rate: 100.00 / Structural Systems #1 Pass Rate: 100.00 / Building Systems #1 Pass Rate: 100.00 / Construction Documents & Services #2 Pass Rate: 0.00 - Source: <http://www.ncarb.org/ARE/ARE-Pass-Rates/Pass-Rates-by-School/2014-v4.aspx> and <http://www.ncarb.org/ARE/ARE-Pass-Rates/Pass-Rates-by-School/2013-v4.aspx>

A.4 Technical Documentation

2013 Visiting Team Assessment: No evidence of outline specifications or physical models illustrating assemblies was found in either onsite or online courses. The onsite student work of ARH 604 and ARH 606 demonstrates attention to detailing of buildings (wall sections) and the drawings are technically clear; the online coursework equivalent is weak.

Academy of Art University, 2015 Response: According to the 2014 NAAB Conditions for Accreditation content of A.4 is now found in B.4. Since the last NAAB visit in 2013 we made the following changes to address these comments: ARH 604: model making was added to assignments, first as a 1" = 1'-0" wall section model (8" x 8" x 36" tall), now as a 1-1/2" = 1'-0" detail model (9" x 9" x 9"). We also improved standards/requirements for drawings as well as for outline specifications; these are now organized more clearly based on professional standards. ARH 604 OL was rewritten by Andrew Harmon (see bio in the appendix) since the last NAAB visit to incorporate the above changes into the online program. The student work has improved drastically since then. // ARH 606: the students are now executing the construction documents based on the work of a previous design studio. This makes room for improvements, as the students don't need to design something from scratch in order to produce a construction document set, but rather apply construction documents and building code on an already existing design project that they are developing further. The design of their projects is then carried into a larger scale, integrating diverse technical aspects into the evolution of the design. We have changed and added SPC C.3 to this class (see appendix). A rewrite of ARH 606 Online that incorporates the changes that have now proven to work onsite is scheduled for 2016.

A.9 Historical Traditions & Global Culture

2013 Team Assessment: The student work presented (online and onsite) does not show evidence of the study of vernacular and non-western / global cultures. ARH 621 does cover global culture; however it is not a required course for all students (only required for Track II students).

Academy of Art University, 2015 Response: According to the 2014 NAAB Conditions for Accreditation content of A.9 changed to A.7. We have added a new course to the curriculum ARH 642 Architectural Theory and Contemporary Practice that covers this content. The course will run in Spring 2016 for the first time. In addition, an updated syllabus for ARH 641 includes Historical Traditions and Global Culture in the context of modernism. A rebuild of ARH 641 Online is scheduled for 2016, and will cover this content as well. Both classes recognize global architectural traditions and include vernacular and non-western topics through lectures and assignments. Both courses are required courses for Track I and Track II students. In Track II we merged classes ARH 621 and ARH 631 into a new class ARH 640, which is only required for Track II students. ARH 640 also gives a historical introduction to Historical Traditions & Global Culture as a preparation for Track I.

B.6 Comprehensive Design

2013 Team Assessment: ARH 619 (onsite and online) does not show evidence meeting the standards of comprehensive design. ARH 801 (onsite) does show such evidence. Since ARH 801 has not been taught online this condition is not met.

Site design characteristics are minimally addressed. Accessibility is covered in restrooms or ramps, however presenting auditoria and opera houses that have no space for listeners in wheelchairs show that accessibility is not fully ethically embraced. Also, a blue arrow at each end of a building section does not make a sustainability concept, and showing two stairs (low-pass work) is not sufficient as an egress concept.

Academy of Art University, 2015 Response: According to the 2014 NAAB Conditions for Accreditation this content has changed into a more integrated understanding of comprehensive design. Since the last NAAB visit in 2013 we made the following changes to address the comments: Both ARH 619 online and onsite had a change in instructors. Online Director Eric Lum now teaches ARH 619 online and structural engineer Stephen Ratchye is an assigned co-teacher who supports the class on a frequent basis. Full-time faculty member David Gill, who has more than 20 years of experience in the design and construction of diverse buildings and new faculty member Benjamin Corotis, who is a licensed architect as well as a licensed engineer, now co-teach ARH 619 onsite (please see all CV's in the appendix). The appointment of full-time faculty members with a high level of professional experience insures that the course content and delivery aligns with the program learning outcomes and our own goals for improvement. The outcome of our student work in these classes reflects the positive effect of this change. As for the specific course content, we added lectures to cover building and planning codes (including accessibility) and systems integration (emphasis on structure). We also added a Life Safety Workshop to support the course. Life Safety, Accessibility, Sustainability, Site Design, Environmental Systems, Structural Systems (former items B5 - B9 now B.2 – B.7, B.9 and C.3) are recurring topics in desk critiques and reviews, and are requirements outlined in the syllabus. The change in ARH 606 that is described earlier (please see above under A.4.) is also geared to address the comments in enabling the student to gain a more holistic architectural understanding by integrating technical aspects into a previously executed design studio project. Our thesis ARH 801 is also a comprehensive design project. Since the last NAAB visit, we now have online graduates who successfully completed ARH 801. Their projects display the same comprehensive understanding as the onsite projects.

B.7 Financial Considerations

2013 Team Assessment: Evidence found in onsite ARH 801 student work, but not for online because this course has not yet been taught.

Academy of Art University, 2015 Response: According to the 2014 NAAB Conditions for Accreditation this content has changed to B.10. Since the last NAAB visit, we now have online graduates who successfully completed ARH 801. Their projects display the same understanding of financial considerations as the onsite projects. The B.10 SPC is also now incorporated into ARH 606.

C.6 Leadership

2013 Team Assessment: Evidence was not found which addressed all of the issues of this criterion.

Academy of Art University, 2015 Response: According to the 2014 NAAB Conditions for Accreditation this content is not explicitly listed in the new SPCs. We modified ARH 614 and it now includes a lecture on Leadership. This lecture is mandatory and includes a short paper assignment. The leadership issues are further strengthened through class discussions that are now embedded in the ARH 614 syllabus. We intend to include leadership and concepts of ethics in an update of ARH 605 (Environmental Controls) especially in regards to the collaborative aspects of the profession in building design and construction processes, and in regards to environmental and social issues.

b. Plans for/Progress in Addressing Causes of Concern

- **Online Program Development**

2013 Visiting Team Comments: The online program has not yet reached the same level of output as the onsite program. It is vitally important that faculty and coordinators continue to improve the delivery, content and output of the online program.

Academy of Art University, 2015 Response: The Online program has continued to develop its online delivery system by moving towards a more visually based learning management system, and incorporating more live interaction between instructors and students. We are creating more flexible course formats that are more responsive to changing course needs, and we are continually updating online course content to improve our online courses. We are reviewing the course learning outcomes in the online courses to ensure they are equivalent to their onsite counterparts, and we are assessing grading rubrics with the onsite and online instructors to ensure that online and

onsite course work is being graded on an equal basis. The Directors meet on a monthly basis to discuss best practices for online teaching and methodologies, and hold bi-annual teaching workshops to improve student output.

- **Online Vertical Learning**

2013 Visiting Team Comments: Students of the online campus have much less opportunity for vertical learning than is present for the onsite campus students.

Academy of Art University, 2015 Response: There are several challenges related to vertical learning for online students, and we are looking into addressing each of these. One is the need to view student work examples, so online course galleries are being developed to show studio and thesis work. Another issue is the larger question of studio culture, and in response, the School is regularly broadcasting onsite lectures, events, and thesis reviews. We are experimenting with different studio formats that build collaborative opportunities between onsite and online students. We are using Facebook as a pedagogical tool, to encourage students to post their work either on an informal basis, or as part of their formal coursework. Another point is traditional interaction through physical presence, and we encourage our online students to visit the campus as circumstances permit. One opportunity is our annual Charrette, and we invite online students to come and work with onsite students and faculty. Another opportunity occurs with the Summer Expo, where online students come onsite for a week and participate in summer onsite classes and other activities. A third is our Study Abroad program to Europe in the summer, which is open to online as well as onsite students.

- **Online Student Reference Material**

2013 Visiting Team Comments: Further attention to the reference needs of online students is required. The AAU library must find ways to provide online students with access to the same reference materials that are available to the onsite students.

Academy of Art University, 2015 Response: The AAU is investing in a growing online library collection in order to meet the requirements of online and onsite learning. The AAU Digital Library provides a wide range of books specific to architecture, technical code and building references, and an extensive digital image library in architecture and the visual arts. As a result of the last NAAB visit, the library budget for the purchase of architecture books was increased. Since then, we have purchased several architecture related titles in e-book format. Most were required texts or requested by Architecture faculty. The Library's online catalog is integrated into the Library website for a seamless user experience. The Library tracks the number of hits that the website and online databases receive each month; while the numbers vary by resource, the overall statistics show increasing use, indicating that these resources are a well-used part of the collection. Since the 2013 NAAB visit Directors continuously worked on improving the online resources of the library for the School of Architecture.

- **Faculty Offices**

2013 Visiting Team Comments: Most faculty do not have either individual or shared offices and must rely on lockers to store their possessions while on campus. This situation deprives faculty of spaces in which to prepare their coursework and-or conduct confidential advising with students.

Academy of Art University, 2015 Response: All full-time faculty members have offices. All part-time faculty members that have coordinator duties also have offices. The part time faculty is utilizing three conference rooms in our room matrix for confidential meetings with students; some of them also prepare their course work in these rooms.

- **Onsite Reference**

2013 Visiting Team Comments: At 601 Brannan there is a lack of a broad selection of onsite reference materials relevant to current studio and content courses. Although M. Arch students have access to a considerable amount of online resources, an onsite library at 601 Brannan is missing. Students are required to travel by AAU shuttle or other transportation modes to reach the New Montgomery St. AAU resource library. This lack of convenient access to printed media considerably limits student access to traditional forms of knowledge. In discussions with students, it became apparent to the visiting team that library investigations and architecture books are perceived by the students as having relatively little value to their studies. Currently, some reference books are available in the administrative offices and faculty members are loaning resources from their own collections to the students.

Academy of Art University, 2015 Response: Significant actions have been taken to address the concerns regarding a lack of onsite reference materials, difficulties for students having access to the Library, and instructors having to loan out their own books and reference materials. A new branch of the Library has been set up at the main Architecture building at 601 Brannan. This branch of the Library now houses all of the textbooks and course reserve books related to all of the Architecture classes. The Directors and Faculty are now able to request books to be added to this reference library, and the number of books available to the students, faculty, and staff continues to increase each semester. While the periodicals and the more expensive “reference only” books remain at the Main Library at 180 New Montgomery, the Faculty and Students are able to request any other general circulation library books from the Main Library online, and the books are delivered to the Brannan Branch for pick up. There is also a book return box at Brannan, so the students and faculty are able to check out and return library books without ever having to go down to the main Library. The school has also invested in the Millennium software and scanner, and training for the staff at Brannan to be able to check books in and out using the same system that is connected to the Main Library branch. The Brannan Branch is open Monday through Friday from 9am -4pm. In summary, the concern for onsite reference material as noted by the NAAB visiting team in Spring 2013 have been resolved by the creation and addition of the Architecture Brannan Branch of the AAU Library system.

- **Student Performance Criteria Coverage**

2013 Visiting Team Comments: Currently 9 SPCs are noted as being covered in only one course. The concern is that, where a number of other SPCs are also covered in that one course (eg ARH 608 having 7; ARH 606 having 5; ARH 614 having 9 and ARH 800 having 6), it is extremely difficult to ensure that a student having a low pass in that course will have achieved the prescribed level of performance in that single-coverage criterion. This is of particular concern in ARH 614, Architectural Professional Practices, where five of the nine SPCs covered have single coverage.

Academy of Art University, 2015 Response: Since the last visit, we reorganized some the Student Performance Criteria Coverage and updated this to the new Conditions for Accreditation. As for ARH 614 – ‘Professional Practice’, the class now contains the five SPCs of the D realm, which we feel is appropriate. However, D2 has been implemented into ARH 606 – ‘Construction Documents’, which reduces the single coverage to only 4 SPCs.

- **Storage/Archiving**

2013 Visiting Team Comments: The archiving for instructional and accreditation purposes of student work such as project and process models is hampered by the lack of a dedicated storage space.

Academy of Art University, 2015 Response: Several actions have been taken since the 2013 NAAB visit to address the concerns of Storage and archiving for instructional and accreditation purposes of student work, such as project and process models, being hampered by the lack of a dedicated storage space.

- 1) The addition of large storage facility at the Cannery Location: 1195 sq. ft. storage area for models and plans (UV protection)
- 2) Limiting the Selection of Physical Work needing to be stored: Another action taken was to work with the Directors and Faculty regarding identifying what student work needed to be saved for future NAAB visits, Spring Shows and other Events, and for the Studio Galleries. Previously a lot of work that would never be used or shown was being kept and stored. Now, at the end of each semester, the Directors and Faculty review all of the student work, and identify what needs to be saved and stored. This includes physical models, original drawings, as well as process and massing models. All work that has been stored and is no longer needed is returned to the students, making room within the existing storage spaces for new model storage.
- 3) Going to Digital Archiving: A full time archivist has been hired and one of the job functions has been to move to digital archiving as much as is possible. Previously, the storage of these folders and DVDs from each semester took up a lot of storage space. We have moved to digital archiving, where the students upload the files of their work for each class into our LMS system where it is stored and can be retrieved for future exhibits and shows. Also, work from previous semesters to us implementing this new digital storage system, is in the process of being downloaded from the DVD's to an archive server, so that the storage of those folders and prints will be no longer needed.

The current storage rooms consist of:

- Room 113A at 601 Brannan: This room is about 150 sq. ft. and is currently housing the B.Arch. folders and DVDs from semesters prior to 2013. These are scheduled to be copied to the Archive Server within the next year,

eliminating the need for this room for Archive storage. The department may still need the room for photography equipment or other equipment storage, but it should not be needed for archive storage.

- Room 122B at 601 Brannan: This room is about 270 sq. ft. and currently is the primary onsite storage for Graduate and Undergraduate Thesis work, as well as current B.Arch. Folders and DVDs. As the B.Arch. program moves to digital storage this semester, digitizing this work to the Archive server will commence. This will create more storage space for thesis work and other archived projects.

- Cannery Storage: The Cannery Storage area consists of about 1195 sq. ft. and it is the primary storage location for physical models being kept for future NAAB visits and the next Spring Show exhibit. We will continue to need and use this storage area.

In addition to these three main storage rooms, we also have:

- Gallery Storage at 601 Brannan: We have 33 portable racks of gallery storage (equals about 660 sq.ft.). This is used for studio specific galleries, which the faculty uses for instructional purposes. There are also dedicated racks and tables for the display of exceptional work and ongoing exhibits of student work.

- Gallery Storage at 466 Townsend: We have eight portable racks of gallery storage (equals about 160 sq. ft.). This is used for studio specific galleries that the faculty uses for instructional purposes. In summary, the combination of work selection, rotating gallery models, and moving to digital archiving, has minimized the amount of space needed for physical models, and the addition of the large Cannery storage location has resolved any storage concerns expressed by the NAAB team at the last visit.

c. Changes or Planned Changes in the Program

Please report such changes as the following: faculty retirement/succession planning; administration changes (dean, department chair, provost); changes in enrollment (increases, decreases, new external pressures); new opportunities for collaboration; changes in financial resources (increases, decreases, external pressures); significant changes in educational approach or philosophy; changes in physical resources (e.g., deferred maintenance, new building planned, cancellation of plans for new building).

Academy of Art University, 2015 Response:

Through our own self-assessment and the comments received by the NAAB team after the 2013 visit, the leadership of the school felt that there was a need to address multiple aspects of the program in order to raise quality and competitiveness in areas beyond accreditation requirements. Subsequently, changes were made to particular aspects of the curriculum as well as part and full-time faculty members. The changes represent our strong commitment to continuous improvement.

Faculty retirement/succession planning; administration changes:

After the last NAAB visit, the school conducted an international faculty search for a new Graduate Director to replace the interim director who was in place at the time of the NAAB visit. The school hired German architect Mark Mueckenheim who was a chair at the department for principles of architectural design at the architecture faculty of the Technical University Munich (TUM) in Germany before joining the AAU (please see bio in the appendix).

Assistant Graduate Director and history theory coordinator Anne-Catrin Schultz, left the school, and the search for the History Theory Coordinator to date has resulted in a candidate that we hope will start in Spring 2016. The Assistant Graduate Director position was filled by Interim Assistant Graduate Director and Midpoint Coordinator Nicole Lambrou who resumed her position of Midpoint Coordinator in the Summer of 2015 when Lim Yim Jew became the Assistant Graduate Director.

Graduate Thesis Coordinator Richard Smith retired in Summer 2015, and a faculty search has begun to fill this position. His duties are temporarily being cover by the Graduate Director Mark Mueckenheim.

Graduate Studio Coordinator Monica Tiulescu has left the Academy. This position will be retired as we decided the duties of this position truly belonged under the guidance of the Graduate Director Mark Mueckenheim and the Assistant Graduate Director Lim Yim Jew.

Graduate Emerging Technologies Coordinator Ben Rice has left the Academy. Peter Suen has been hired to fill this position.

Graduate Systems and Technology Coordinator Benjamin Corotis has replaced Francisco Castillio.

There were multiple new hires in regards to part-time faculty, to increase the quality of the program. (Please see Bio's in the appendix.)

Two new Administrative Assistants, Mary Ordog and Clare Dougan, form an effective team for the school of Architecture.

Changes in educational approach or philosophy:

The mission of Academy of Art University, to prepare students of creative fields for careers in the profession, is also engrained in the DNA of the architecture program at the Academy. While this can be seen as a more practical approach, we understand it in a holistic manner that prepares students, not only in regards to architectural design, but also provides them with the technical comprehension needed to eventually execute their design projects. We believe this delivers the professional preparation that our students need.

With the structure of the NAAB accreditation requirements, as well as the general curriculum units, fundamental course content and general philosophy remain the same, while the curriculum matrix and order of classes was altered to better address deficiencies and increase the quality of student work. While the overall number of units remained the same, the changes resulted in a more aligned curriculum, where the course learning outcomes build upon each other in a more cohesive way, to achieve a more integrated arc.

The matrix change also included the inception of multiple new courses in Track II that address both the NAAB concerns as well as for internal reasons where we felt the students were lacking core skills.

New Classes in Track II are:

- ARH 640 Architectural History “Ancient Egypt to Art Nouveau” replaces ARH 621 and ARH 631 and merges this course content into one course. This change made room for ARH 652 in Track II, another new class in Track I (ARH 642) and now complements the history theory section of the curriculum.
- ARH 652 Architectural Tectonics, is designed to increase tectonic and technical understanding in order to better prepare Track II students for the short track (Track I). This class is available as an elective to Track I students. Because of space constraints to this document, we did not include electives in the appendix.

Retired Track II classes are:

- ARH 621 and ARH 631 (see reasoning above).
- ARH 656 This Track II Studio was retired, and the new matrix makes room for electives or a potential “Elective Studio” (two 3 credit electives combined into a six credit studio) that could specialize in multiple aspects, from either more experimental to more technical. Through this, the School of Architecture hopes to be able to potentially offer participation in the Solar Decathlon, as part of a studio with an international guest professor, or offer a vertical studio for example. The elective studio also offers opportunities for vertical learning and potential onsite participation of online students. To address the gap created by ARH 656's retirement, the two remaining required studios of Track II ARH 650 and ARH 653 were revised and their course learning outcomes were aligned to better prepare students for Track I. This process has almost concluded with the online rebuild of ARH 650.

New Classes in Track I are:

- ARH 642 Architectural Theory. This class introduces components into the curriculum that were missing architectural theory, contemporary practice and current architectural discourse. The class also covers vernacular and non-western / global cultures.
- ARH 659 Digitally Generated Fabrication. This class introduces a component into the curriculum that was missing methods of advanced architectural fabrication in relation to architectural design and construction processes.
- ARH 690 Thesis Prep. This class links the first semester of thesis with the midpoint workshop, and formalizes the preparation for thesis, which was previously conducted through independent study. The reorganized course provides for our students, to be better prepared and able to manage the requirements for thesis, which is a demanding comprehensive architectural design project.

- ARH 903 Study Abroad. The Foreign Study focuses on contemporary built works of architecture. This is a seven week Summer Semester course consisting of five weeks of intensive research and two weeks of travel. The class ran in the summer of 2015 for the first time. ARH 903 is currently an elective and therefore carries no SPCs.
- Remaining units that became available through our reevaluation process, were used to make room for elective courses. We currently treat these as “major by advisement” to address individual deficiencies, or allow for a certain specialization or special interest a student might have.

The Track I classes that made room for new classes and electives were changed from mandatory classes of the core curriculum into electives. The NAAB related SPCs were moved into the new classes or other core classes of the curriculum. The electives do not contain SPCs. Those classes are:

- ARH 601 This class was changed into an elective. The SPCs, which were associated with this class, can be found in all studio classes of the curriculum. The NAAB criteria (formerly A.9 Historical Traditions and Global Culture now A.7) can be found in the new class ARH 642 Architectural Theory. The NAAB criteria (formerly A.11 Applied Research now C.1) is evident in ARH 690 Thesis Prep (among others).
- ARH 657 This Class was changed into an elective. Its content was updated from hand drawn perspectives in pencil into a more up to date content providing an advanced knowledge of digital architectural visualization crucial to the contemporary architectural design process. The SPC, which was associated with this class, (formerly A.3 Visual Communication Skills now A.1) is also evident in ARH 608, ARH 620 and ARH 659 which is a mandatory core class.
- ARH 635 Contemporary Urban Theory was changed into an elective and is also available for students in Track II.

Reorganization of Thesis:

- The two semesters of thesis (ARH 801) were changed into a one semester thesis (ARH 801) and a thesis prep class (ARH 690). In essence, the content of the thesis has not changed, the NAAB content (formerly A.7 Use of Precedents, now A6, formerly A.11 Applied Research, now C1, and formerly B.1 Pre-Design now B.1) was moved into ARH 690 Thesis Prep. We are currently running the class for the first time. The increased rigor of the more regimented course has increased the student performance in comparison to the previous two-semester thesis. The old model had no clearly defined requirements or deliverables for the first semester. The new model is intended to increase student success in thesis. ARH 690 has two major reviews: a midterm, and a final review, much like the final thesis semester.
- In addition to this change, we added a third review (besides midterm and final) to the final thesis semester, a “thesis book pre-approval review”. Thesis advisors, the thesis coordinator, and the graduate director review all thesis books two and a half weeks prior to the final review to insure compliance and quality of all the items on the extensive set of deliverables we require for the comprehensive thesis project. At this point all books are required to be complete, with the exception of the final presentation model and renderings. Since its inception in 2013, this new review has greatly increased student success as well as the general quality of the thesis submissions.

Classes with updated content:

Track II: ARH 651 / ARH 654 / ARH 653 / ARH 650 Onsite / ARH 640 (entirely new class) / ARH 652 (entirely new class)

Track I: ARH 620 Onsite / ARH 608 Onsite / ARH 604 / ARH 641 Onsite / ARH 642 (entirely new class) / ARH 659 (entirely new class) / ARH 690 (entirely new class) / ARH 903 (entirely new class) / ARH 606 Onsite / ARH 619 / ARH 614

Classes where we intend to update content in the near future:

Track II: ARH 650 Online (online build almost complete) /

Track I: ARH 608 Online / ARH 641 Online / ARH 620 Online / ARH 605 (OL and OS) / ARH 606 Online / ARH 609 (OL and OS)

In effect, the whole Track II portion of the curriculum was changed to better prepare the students for Track I. The amendments and revisions in Track I were made to address the NAAB team comments and the results of our self-assessment.

Changes in physical resources:

- Please see commentary regarding Library and Faculty Offices above.
- The school purchased a 3D printer, which is housed in the Industrial Design Department. Shuttle busses provides access to these facilities and our shop staff is trained to set up 3D model files before they are send over to Industrial Design.
- The school purchased a 5-axis robotic arm (Kuka) that is located in an enclosed space in our woodshop. The robot can be used in this space or, as it is mobile, rolled out into a classroom. We are currently in the process of training our shop staff as well as faculty to implement this technology into the curriculum.

d. Summary of Activities in Response to Changes in the NAAB Conditions

Academy of Art University, 2015 update: As we are making revisions to the curriculum, we are simultaneously reviewing the new 2014 NAAB Conditions for Accreditation. We conduct frequent faculty meetings to self-assess course and program learning outcomes in conjunction with our mission, learning culture, social equity and long range planning. The core group of full-time faculty and coordinators meets on a weekly basis to discuss specific curriculum topics. Monthly meetings are conducted in regards to long-range planning and academic mission. We also meet with part-time faculty on a semester basis to address specific course content and learning culture. We have updated all NAAB SPCs in regards to the feedback from the last NAAB visit, our curriculum changes and updates since then, as well as the changed 2014 NAAB Conditions for Accreditation. Since the last visit, we reviewed Part II – Educational Outcomes and Curriculum. As a result, we reevaluated our curriculum framework, the student performance and the EPE incorporating the changes. Our new public information material includes the latest information about the NAAB Accreditation process and status of our program. Faculty and students are informed about developments and changes in accreditation via email.

e. Appendix

(include revised curricula, syllabi, and one-page CVs or bios of new administrators and faculty members; syllabi should reference which NAAB SPC a course addresses)

Academy of Art University, 2015 update:

New and revised Syllabi:

(Because of space constraints we did not include electives in the appendix of this document)

- ARH 604: Material and Methods of Construction: Building Detailing (3 Credits)

Course Description:

This course introduces the properties of building materials and processes of construction. Emphasis is on materials application and the influence of materials and construction on design within building envelope assembly. The wall section and its related elevations, plans, and key details provide a significant portion of a completed description of a building. This course will prepare students to develop a high level of competence in the technical aspects of architectural design through exploring a wall section.

Course Goals and Objectives:

- Find and evaluate research on integrating approaches of building materials and component, with an awareness of the whole building system
- Understand the basic principles involved in the appropriate selection and application of building envelope systems
- Understand the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies
- Understand material selection in regards to performance, including environmental impact and reuse.
- Identify and evaluate the assembly of materials, systems, and components appropriate for a building envelope design in regards to their performance, moisture transfer, durability, energy, and aesthetics
- Present work in a comprehensive way, describing the structural and waterproofing system of the wall section from the top of the wall to the foundation
- Execute a model of a wall section showing the following components: building structure, HVAC, roof drainage, and wall structure
- Develop details related to the technical aspects of construction
- Visually describe details of enclosure systems, door and window systems through technically clear drawings.

- Use a cyclical design approach to defining building details within a framework of an overall building envelope.

Student Performance Criteria:

B.4 Technical Documentation / B.7 Building Envelope Systems and Assemblies / B.8 Building Materials and Assemblies / C.1 Research

Topical Outline: 15% Material Research / 20% - Masters Format and CSI Divisions / 15% - Materials, Thermal/Moisture Protection and Finishes / 50% - Mid-term and Final Project

Textbooks/ Learning Resources:

Fundamentals of Building Construction: Materials and Methods Author: Allen, Edward
Exterior Building Enclosures - Design Process and Composition for Innovative Facades: Boswell, Keith

Pre-reqs: ARH 609, ARH 602 / **Offered:** Year 3, Semester 1 / **Faculty:** David Gill (FT), Andrew Harmon (Adjunct OL)

- ARH 606: Construction Documents and Building Codes (3 Credits)

Course Description:

This course provides an overview of the various codes affecting building design. The course also aims to teach the student the competence that is required to produce a full construction documentation package, drawn in 2D and 3D CAD. The emphasis lies on understanding the construction drawing set as a standardized language to clearly communicate to a third party. The class is executed investigating a studio project from the previous semester. Focusing on resolving an integrated structural system, material assembly and building envelope systems, students learn how building construction influences architectural design.

Course Goals and Objectives:

- Integrate the principles of life-safety and accessibility standards into a building design
- Research building codes and reflect an understanding of these codes in their own design work
- Accurately draw and format a set of construction documents in 2D and 3D CAD
- Develop outline specifications for an architecture project
- Show an understanding of the preparation and use of contract documents
- Execute a cost analysis
- Display an understanding of construction management
- Display an ability to make design decisions within a complex architectural project while demonstrating broad integration of all its technical requirements

Student Performance Criteria:

B.3 Codes and Regulations / B.4 Technical Documentation / B.10 Financial Considerations / C.3 Integrative Design / D.2 Project Management / D.4 Legal Responsibilities

Topical Outline: 30% - Construction Drawings and Specifications / 30% - Building Codes and Standards / 10% - Life Safety and accessibility / 30% - Mid-term Exam and Final Project

Textbooks/ Learning Resources: A Manual of Construction Documentation - Glenn E. Wiggins, AIA / Working Drawing Manual - Fred A. Stitt / Construction Specifications Portable Handbook - Fred A. Stitt / Handbook to the Uniform Building Code by International Conference of Building Officials / The Building Professional's Guide to Contract Documents 3rd edition - Waller S. Poage, AIA, CSI, CVS California Building Code / Building Codes Illustrated: A Guide to Understanding the 2012 International Building Code, Fourth Edition Author(s) Ching, Francis D.

Pre-reqs: ARH 608, ARH 604 / **Offered:** Year 3, Semester 1 / **Faculty:** Fumio Suda (Adjunct), David Gill (FT)

- ARH 608: MS: Advanced Design Studio 1 - Concept, Context and Typology (6 Credits)

Course Description:

The studio investigates concept, context and typology such as physical site characteristics, environmental and programmatic factors as well as cultural and societal developments that influence architectural design. Through an

analysis and understanding of type, program, and site, students will explore the synthesis of an architectural concept from its early design schematics towards its final physical manifestation.

Course Goals and Objectives:

- Investigate and reflect the specific requirements that arise from a building typology
- Investigate the relationship between buildings and their environment, including the immediate, as well as the larger context
- Develop abstract and conceptual architectural ideas that are based on a building typology with regards to environmental and societal influences
- Articulate and diagram sustainable strategies held within a master plan or building proposal
- Exhibit accessibility as part of a building and site design and Diagram circulation and exiting within the building proposal parameters
- Examine both practical and poetic aspects of a project and its site including: spatial and functional relationships, structure and material, climate and sustainability, zoning and planning, orientation and views, topography and vegetation, as well as historical, cultural, societal, tactile, sensory, and experiential factors in order inform the design of an architectural proposal
- Recognize city issues and related restrictions in the Planning Code and response to context
- Create and read diagramming and documentation of existing site conditions
- Incorporate site analysis and evaluation into a holistic design for a master plan or building proposal

Student Performance Criteria: A.1 Professional Communication Skills / A.2 Design Thinking Skills / A.4 Architectural Design Skills / A.5 Ordering Systems / A.6 Use of Precedents / B.1 Pre-Design / B.2 Site Design

Topical Outline: 20% - Typology Precedents and Research / 10% - Site and Connectivity / 5% - Master Planning Principles / 10% - Sustainable Design / 15% - Programming and Function / 15% - Form, Space, and Massing / 10% - Structural and Building Envelope Systems / 15% - Architectural Design Concept

Textbooks/ Learning Resources:

City Building: Nine Planning Principles for the Twenty-First Century, Kriken, John Lund
Green Studio Handbook: Environmental Strategies for Schematic Design, Kwok, Allison Sun, Wind & Light: Architectural Design Strategies, Brown, G.Z. and Mark De Kay

Pre-reqs: ARH 609, ARH 602 / **Offered:** Year 3, Semester 1 **Faculty:** Mark Mueckenheim (FT), Nicole Lambrou (FT), Eric Reeder (Adjunct, Online)

- ARH 614: Architectural Professional Practices (3 Credits)

Course Description:

This course exposes students to the business of conducting an architectural practice. Emphasis is placed on understanding the licensing of architects, how professional architectural firms are organized and administered, methods of project management, project delivery, agreements and contracts, fees and compensation, insurance, the land use process, and relationships with consultants and contractors. Further attention is placed on the role of the architect in planning processes, local communities, professional ethics, responsibility to the public, leadership and entrepreneurship.

Course Goals and Objectives:

- Prepare projects and discussion participation that reflects an understanding of legal and ethical issues including the Architecture Practice Act, AIA code of ethics, and dispute resolution methodologies.
- Evaluate disciplinary actions against architects and judge appropriateness.
- Apply the concept of professional liability, errors and omissions, and develop an expert's opinion.
- Research an architectural firm and develop and tailor professional application materials
- Apply an understanding of practice management and leadership to preparation of a partnership agreement, strategic business plan, including human resources and finance, and marketing materials.
- Discuss methods of conflict resolution and negotiation skills
- Develop a response to a Request for Proposal that demonstrates a comprehensive understanding of contracts, project delivery methods, compensation alternatives, project management and community/social responsibility.
- Recognize the importance of relationships with consultants, clients, and contractors

Student Performance Criteria: D.1 Stakeholder Roles in Architecture / D.2 Project Management / D.3 Business Practices / D.4 Legal Responsibilities / D.5 Professional Conduct

Topical Outline: 30% - Legal Issues / 30% - Starting a Firm / 40% - Conditions of Practice, management and marketing

Textbooks/ Learning Resources:

American Institute of Architects, the Architect's Handbook of Professional Practice
American Institute of Architects, the Architecture Student's Handbook of Professional Practice

Pre-reqs: ESL_604 / **Offered:** Year 4, Semester 1 / **Faculty:** Elizabeth Tippin (Adjunct)

- ARH 619: MS: Advanced Design Studio 2 Concept, Comprehensiveness and Design Integration (6 Credits)

Course Description:

The studio engages in a comprehensive building design from early concept to final detail. Through an investigative process fostering multiple iterations, students engage into the conception of a holistic building design, making integrated decisions across multiple systems and variables in the completion of a complex architectural project. Students learn how a building design is influenced by and formed through its technical and tectonic consistency.

Course Goals and Objectives:

- Apply conceptual architectural thinking to a building proposal addressing site, code, program, circulation, life safety, sustainability, structure and building systems
- Prepare a comprehensive program for an architectural project by assessing client and user needs
- Analyze and verify site and urban conditions including relevant building codes, standards, sustainability requirements and their implications to the project
- Apply life-safety and accessibility standards and other relevant codes and regulations
- Produce technically clear drawings and prepare outline specifications
- Demonstrate an understanding of the basic principles of structural and environmental systems, their performance as well as their influence and integration in a design process
- Demonstrate an understanding of building envelope systems and assemblies
- Demonstrate an understanding of MEP systems and other building service assemblies.
- Execute a cost analysis including operation and life cycle costs and relate this to the feasibility of an architectural building design.
- Display an ability to make design decisions within a complex architectural project while demonstrating broad integration of all its technical requirements

Student Performance Criteria: B.1 Pre Design / B.2 Site Design / B.3 Codes and Regulations / B.4 Technical Documentation / B.5 Structural Systems / B.6 Environmental Systems / B.7 Building Envelope Systems and Assemblies / B.9 Building Service Systems / B.10 Financial Considerations / C.2 Integrated Evaluation and Decision-Making Design Process / C.3 Integrative Design

Topical Outline: 15% - Programming and Preliminary Design / 5% - Site Analysis, Urban Conditions / 10% - Life Safety and Building code / 10% Structural Systems / 10% - Building Service Systems / 10% Building Envelope and Building assembly / 40% - Integrated Design Process

Textbooks/ Learning Resources (excerpt):

Digital Drawing for Designers: A Visual Guide to AutoCAD 2012, Seidler, Douglas R. Building Construction Illustrated, by: Ching, Francis D. K. / USGBC LEED Reference Guide for Green Building Design and Construction - 2009 by USGBC ISBN / Architect's Studio Companion: Rules of Thumb for Preliminary Design by: Allen, Edward / Detail in Process (AsBuild), by: Killory, Christine; Davids, Rene / Contemporary Curtain Wall Architecture Author(s) Murray, Scott

Pre-reqs: ARH 608 / ARH 604 / **Offered:** Year 3, Semester 2 / **Faculty:** Eric Lum (FT) Online, David Gill (FT) and Ben Corotis (Adjunct) Onsite

- ARH 641: Architectural History 3 – Modern Architecture and its Global Impact (3 Credits)

Course Description: This course will focus on the development of architecture and urbanism since the Industrial Revolution. Students will examine cultural and technological roots and their implications on contemporary design throughout the world. This course will also trace the global impact of the modern movement.

Course Goals and Objectives:

- Recognize and discuss the impact of the Industrial Revolution and technologies role in the development of architectural ideas
- Distinguish the roots of contemporary architecture and its constant evolution through modernism.
- Recognize the radical acceleration of architectural innovation occurring at an international scale during the 19th and 20th century
- Discuss political, economic, social, ecological, and technological factors at play during the development of modernism and its influence globally.
- Trace the spread of modern architecture throughout the globe. View examples of how principles of modernism and the International Style shaped architecture in parts of Asia, Africa, Australia and the Americas.
- Discuss the different architectural philosophies of the 20th century.
- Analyze and discuss new methods and materials of construction made available to architects.
- Discuss modern design strategies and aesthetical rules.
- Identify design strategies and aesthetical rules used in the periods discussed.
- Communicate the impact of modern industrialization in the development of space, surface treatment and building massing.
- Discuss indigenous and vernacular influences in the development of modernism and non-western developments in modern architecture of the 20th century.
- Demonstrate critical reading, writing, and research skills verbally as well as in writing

Student Performance Criteria: A.1 Professional Communication Skills / A.7 History and Global Culture / A.8 Cultural Diversity and Social Equity

Topical Outline: 30% - Onset of Modernism / 40% - Modernism / 30% - Consequences and global impact

Textbooks/ Learning Resources: William J.R. Curtis, Modern Architecture since 1900, 3rd edition / Kenneth Frampton, Modern Architecture / Ulrich Conrads, Programs and Manifestoes on 20th-Century Architecture

Pre-reqs: EAP 604 **Offered:** Year 2, Semester 1 **Faculty:** James Mallery (Adjunct), Hans Sagan (FT), Future History Theory Coordinator (FT) - TBD

- ARH 642: Architectural Theory (3 Credits)

Course Description:

This course will give an overview of contemporary architectural theory and highlight the relationship of architectural theories to social, political, technological, and scientific events. The course will foster critical thinking and introduce students to different schools of thought in architecture. It will elaborate on selected theoretical subjects' connection between theory, current architectural discourse, and global practice.

Course Goals and Objectives:

- Identify design strategies and aesthetical rules used in the periods discussed.
- Develop a critical approach towards the writings of architects
- Assess differing theoretical viewpoints
- Assess differing needs, values and norms of divergent social and cultural systems
- Present the conceptual ideas of a building design
- Analyze the relationship between theory and design concepts
- Apply writing and presentation skills in regards to theoretical architectural discourse
- Display an understanding of the parallel and divergent cultural norms of a variety of indigenous, vernacular, local, and regional settings and their diverse factors that influence the understanding and reception of architecture.

Student Performance Criteria:

A.1 Professional Communication Skills, A.7 History and Global Culture, A.8 Cultural Diversity and Social Equity, C.1 Research

Topical Outline: 25% Architectural Theory Since 1968 / 20% Critical Regionalism and Globalism / 25% Ethics, Politics and Social Change / 10% Sustainable Design Thinking / 10% Digital and Virtual / 10% Tectonics and Fabrication

Textbooks/ Learning Resources: Architecture Theory since 1968, by K. Michael Hays / Theorizing a New Agenda for Architecture:: An Anthology of Architectural Theory 1965 - 1995, by: Kate ed. Nesbitt / Constructing a New

Agenda: Architectural Theory 1993-2009, by A. Krista Sykes / Programs and Manifestoes on 20th-Century Architecture, by Ulrich Conrads

Pre-reqs: ARH 641 / **Offered:** Year 3, Semester 2 / **Faculty:** Eric Lum (FT, Online), Janek Bielski (Adjunct), Future History Theory Coordinator (FT) - TBD

- ARH 659: Digitally Generated Fabrication (3 Credits)

Course Description:

This course will explore methods of advanced architectural fabrication in relation to architectural design and construction processes. Students will deeply engage in a number of methods and technologies as well as in the applications of these methods pertaining to architectural production.

Course Goals and Objectives:

- Explore the relationship between design and three dimensional models
- Master intermediate and expert level graphic and compositional skills
- Develop clear and precise methods for well-reasoned design conclusions
- Develop three dimensional digitally fabricated models
- Test alternative outcomes against divergent relevant methods
- Master intermediate and expert level fabrication skills
- Understand the basic principles of appropriate selection of construction and fabrication materials
- Employ approaches and techniques to produce a range of fabrication assemblies including models constructs in a variety of different media and production types
- Apply finishes, products, components, and assemblies in regards to their performance
- Understand and apply natural and formal ordering systems into two- and three-dimensional design and fabrication processes.

Student Performance Criteria:

A.1 Professional Communication Skills, A.2 Design Thinking Skills, A.3 Investigative Skills, A.5 Ordering Systems, B.8 Building Materials and Assemblies

Topical Outline: 10% Fabrication Methods / 30% Fabrication Software / 10% Advanced Laser Cutting Technologies / 10% Advanced CNC Milling technologies / 15% 3D Printing / 25% Robotics

Textbooks/ Learning Resources: Digital Fabrication in Architecture, Engineering and Construction, by Luca Caneparo / Digital Fabrications: Architectural and Material Techniques, by Lisa Iwamoto / Material Strategies in Digital Fabrication by Christopher Beorkrem / Robotic Fabrication in Architecture, Art and Design 2014 by Wes McGee (Editor) et alii / Digital Fabrication in Architecture, by Nick Dunn /

Pre-reqs: ARH 620 / **Offered:** Year 3, Semester 2 **Faculty:** Peter Suen (FT) / Ben Rice (Adjunct) / Gabriel Kaprielien (Adjunct)

- ARH 690: Thesis Preparation Midpoint (3 Credits)

Course Description:

This course serves as the preparation for the final independent or directed thesis for both the 87-unit and 63-unit M.Arch programs. Students will identify an area of architectural investigation. At the end of the course, students will be fully prepared to begin their final building project in the following semester.

Course Goals and Objectives:

- Identify and elaborate on the theoretical and conceptual underpinnings of the thesis proposal
- Identify a program and justify its appropriateness for the site and area in which it will be realized
- Represent ideas clearly and compellingly using graphics, diagrams, and writing
- Present precedents and typologies that apply both to program and tectonic strategies
- Comprehend user groups and assess how those groups will be served by tectonic strategies and program
- Present the thesis proposal in writing as well as verbally in a compelling and clear fashion
- Independently investigate and research ideas
- Complete site as well as preliminary design models investigating the thesis proposal

Student Performance Criteria:

A.1 Professional Communication Skills, A.6 Use of Precedents, B.1 Pre-Design, C.1 Research

Topical Outline: 20% Mission Concept and Site / 20% User Group, Social, Urban and Environmental Context / 10% Program and use / 20% Research Summary and Conclusion / 30 % Conceptual Studies and Concept Narrative

Textbooks/ Learning Resources: Precedents in Architecture Author: Clark, Roger H.; Pause, Michael / The Visual Display of Quantitative Information Author: Tufte, Edward / Graphic Design: The New Basics Author: Lupton, Ellen

Pre-reqs: ARH 608, ARH 659, ARH 604, ARH 642 / **Offered:** Year 4, Semester 1 / **Faculty:** David Gill (FT), Nicole Lambrou (FT), Janek Bielski (Adjunct), Abraham Burrickson (Adjunct)

- ARH 801: MS: Group Directed Study Thesis (6 Credits)

Course Description: Students will develop a critical understanding of their thesis proposal through the study of precedents, a reading of theory and history, site and program analysis, and design investigations. An essay and final project booklet will be produced that documents the primary thesis ideas, methods used, and supporting research, which will be the foundation for the thesis design.

The objective of the thesis semester is for an individual student to demonstrate the ability to develop an architectural concept into a comprehensive building project. The thesis project should demonstrate the student's capacity to apply the architectural subjects and issues learned throughout their course of study. Students will be expected to incorporate sufficient documentation about the relationship to the preceding research in their final building design.

Course Goals and Objectives:

- Transform and refine key topics from Thesis Prep / Midpoint into a conclusive thesis definition and a comprehensive project that relates to the topic of study
- Clarify architectural concept through models and drawings
- Make integrated decisions across multiple systems and variables in the completion of the thesis project
- Evaluate the proposal in regards to relevant criteria
- Identify problems and analyze multiple solutions to find the most feasible for the project
- Apply conceptual architectural thinking to a building proposal addressing site, code, program, circulation, life safety, sustainability, structure and building systems
- Apply life-safety and accessibility standards and other relevant codes and regulations
- Demonstrate an understanding of the principles of structural and environmental systems, their performance as well as their influence and integration in a design process
- Demonstrate an understanding of building envelope systems and assemblies
- Demonstrate an understanding of MEP systems and other building service assemblies
- Execute a cost analysis including operation and life cycle costs and relate this to the feasibility of an architectural building design
- Display an ability to make design decisions within a complex architectural project while demonstrating broad integration of all its technical requirements
- Manage time and develop milestones in the thesis process

Student Performance Criteria: A.1 Professional Communication Skills, B.10 Financial Considerations, C.2 Integrated Evaluations and Decision-Making Design Process, C.3 Integrative Design

Topical Outline: 10% Preliminary design / 10% Design development / 35% Design Integration / 20% - Thesis refinement / 15% Final presentation development / 10% Thesis booklet preparation

Textbooks/ Learning Resources: None as it is individual to each thesis

Pre-reqs: ARH 619 / **Offered:** Year 4, Semester 2 / **Selected Faculty:** David Gill (FT), Alberto Bertoli (FT), Keith Plymale (FT), Nicole Lambrou (FT), Mark Mueckenheim (FT), Yim Lim Jew (FT), Janek Bielski (FT) / Peter I. Strzebnicki (Adjunct / Online) Alvaro Badier (Adjunct / Online)

New Full-Time Faculty:

Name: Mark Mueckenheim **Position:** Graduate Director School of Architecture

Courses: ARH 608: Advanced Design Studio / ARH 801: Thesis / ARH 903: Study Abroad

Educational Credentials: Educated in Germany, the United States, and England, sponsored by a Fulbright scholarship and a DAAD grant from the German government, Mueckenheim received his Master of Architecture from Parsons School of Design, New York, and his Graduate Diploma in Architecture at the Bartlett School of Architecture, University College London.

Teaching Experience: Mark Mueckenheim has lectured and acted as a guest critic at numerous institutions in Germany and abroad. Among other schools, he taught for more than six years at the distinguished RWTH Aachen before being appointed as a visiting professor and department chair at the TU Munich from 2009 to 2012. Since 2013, he serves as the graduate director of the School of Architecture at Academy of Art University in San Francisco.

Professional Experience: Before establishing his own architecture practice in 2001, Mark worked and collaborated with different architecture firms in Germany, USA and England, gaining extensive experience from concept to realization on various projects of internationally recognized design excellence. His award winning work has been featured in various international book and journal publications and has also gained reputation through a number of exhibitions in Germany and abroad - most recently the house of architecture in Lille, France, the German Architecture center in Berlin and the 12th Architecture Biennale in Venice.

Selected Publications and Recent Research: • **Inspiration** book publication by Mark Mueckenheim and Juliane Demel ISBN: 9789063692674 - Category: Architecture & Design - Format: Hardcover Publication Date: 2012-05-12 - Publisher: BIS Publishers B.V. - Illustrations: 800 Colour Images 276 Pages - Dimensions (mm): 235x295mm (9 1/4" x 11 1/3") / **Other Recent Publications (2013-15):** Detail, ArchDaily, H.O.M.E. Magazine Germany, AMC - France, Dwell Online, 100 German Houses - Austria, Dezeen, Designboom, Divisare Journal – Italy, Living and Design – Magazine – Taiwan, among others.

Licenses/Registration: Licensed Architect in Germany eligible to practice in all of the European Union member states.

Professional Memberships: AKNW (German Architects Chamber) / BDA (Federation of German Architects – equivalent to the AIA in the US)

• **Name:** *Yim Gloria Lim Jew* **Position:** *Assistant Graduate Director School of Architecture*

Courses: ARH 650: MS: Introductory Design Studio 1 / ARH 801: MS: Group Directed Study: Thesis

Educational Credentials: Master of Architecture: Harvard University Graduate School of Design; Cambridge, Massachusetts

Teaching Experience: Senior Adjunct Professor, California College of the Arts, 2008 – 2015 / Visiting Studio Critic for Project Pipeline, California College of the Arts 2010-2013 / Visiting Professor of Architecture, UNLV, Downtown Urbanism Studio, 2011 – 2012 / Senior Adjunct Professor, California College of the Arts in Abu Dhabi, Summer 2010 / Senior Adjunct Professor, California College of the Arts in China, Summer 2009 / Senior Adjunct Professor, California College of the Arts, 1993 – 2008 / Senior Adjunct Professor, Technical University of Nova Scotia, Summers of 1995 – 1999 / Studio Leader, Tufts University, Summer 1995 - 1999

Professional Experience: GDA Realty, San Francisco, CA/New York 2012 – 2015, Senior Project Manager / Gensler Architecture, San Francisco, CA/Las Vegas, NV 2011 – 2012, Design Director / HDR Architecture, San Francisco, CA 2007 – 2011, Senior Project Architect/Project Designer / Anshen + Allen/Stantec, San Francisco, CA 2003 – 2007, Senior Architect Designer/Senior Associate / Chong Partners/ Stantec, San Francisco, CA 2001 – 2003, Senior Architect Designer/Associate / RMW Architecture, San Francisco, CA 1998 – 2001, Project Architect Designer/Associate / Barrett Quezada Architecture, San Francisco, CA 1996-1998, Project Designer/Architect

Selected Publications/Recent Research: June 2012 – Global Studies Conference “Mapping and Remapping the Malleable Las Vegas” / August 2011 – AIA Las Vegas “Urbanism Proposition: A Hybrid Las Vegas?” / May 2010 – Santa Clara State University “Urban Anthropology and Entropy” / November 2010 - Healthcare Design Conference Paper: “Cleveland Clinic Abu Dhabi”

Licenses/Registration: AIA American Institute of Architects / EDAC Evidence Base Design - Accreditation and Certification / HERD Health Environment Research - Design Journal / AHA AIA Academy for Health / Registered Architect Texas 7563 / EDAC Certification – Evidence Base Design Research

• **Name:** *Peter Suen* **Position:** *Graduate Emerging Technologies Coordinator*

Courses: ARH 609: MS: Intermediate Design Studio 1 / ARH 620: MS: Digitally Generated Morphology
ARH 654: MS: Design Process & 3D Media

Educational Credentials: Master of Architecture, UC Berkeley, 2010-2013 / MS in Computer Science, Carnegie Mellon, 2002-2004 / JD, Stanford Law School, 199-2002 / BA in Computer Science, Middlebury College, 1995-1999

Teaching Experience: Graduate Student Instructor, Studio One, UC Berkeley, 2013 / Media Instructor, UC Berkeley [IN]Arch Architecture Program, 2011-2012 / Teaching Assistant, Web Application Development, Carnegie Mellon, 2003 / Program Manager, Stanford Volunteers for Tibet, Stanford University, 2000

Professional Experience: Architect, Sagan Piechota Architecture, San Francisco, CA – 2014-present / Intern Architect, Jensen Architects, San Francisco, CA, 2014 / Intern Architect, VeeV Design, San Francisco, CA, 2012-2013 / Co-Founder, AdOpt Technologies LLC, San Francisco, CA, 2009-2010 / Co-founder, Eightbox Media, Inc., San Francisco, CA, 2008-2009 / Associate Attorney, Winston & Strawn, San Francisco, CA, 2007-2008

Selected Publications/Recent Research: Gutierrez, M. P., & Suen, P. (2013). New Advances in Elastic Additive Manufacturing. In Proceedings of the 2013 International Conference on Adaptation and Movement in Architecture. Ryerson University, Toronto. / Suen, P. (2013). Biological Simulation: An Analog Approach to Designing Adaptable Systems. In R. Armstrong & S. Ferracina (Eds.) / Unconventional Computing: Design Methods for Adaptive Architecture. Toronto: Riverside Architectural Press.

New Adjunct Faculty with Coordinator Duties:

• **Name:** Ben Corotis *Position:* Graduate Systems and Technology Coordinator

Courses

ARH 619: MS: Advanced Design Studio 2 – Concept, Comprehensiveness and Design Integration / ARH 652: MS: Architectural Tectonics / and structures workshops supporting multiple classes

Educational Credentials: Masters of Architecture, UC Berkeley, 1998-2001 / Masters of Civil Engineering, emphasis in Structures, UC Berkeley, 1997-1999 / B.S. Civil Engineering, Northwestern University, 1993-1997

Teaching Experience: Adjunct Professor California College of the Arts, San Francisco, CA, 2008-2015 / Graduate Student Instructor, University of California, Berkeley, CA, 1997-1998

Professional Experience: DaringaCorotis (ADBC Architecture), Partner since 2013 / Endres Ware Architects Engineers, Berkeley, CA, 2000-2015 / Research Assistant, University of California, Berkeley, CA, Summer 1998 / Hassatt Engineering, Oakland, CA, Summer 1998 / J.R. Harris and Company Consulting Structural Engineers, Denver, CO, Summers 1994-1998 / Ziger/Snead Architects, Baltimore, MD, Summers 1991-1993

Licenses/Registration: Licensed Architect and Licensed Civil Engineer in the State of California

New Adjunct Faculty:

• **Name:** Janek Bielski

Courses: ARH 801: Thesis

Educational Credentials: Architectural Association School of Architecture, AA Diploma 1981 / BS-Architecture, University of Southern California, 1976

Teaching Experience: American University of Sharjah, UAE 2013 - 2012 (Full Time) / University of Southern California (USC), Los Angeles 1996-1992 / Arizona State University (ASU), Phoenix 1996 / University of California Los Angeles (UCLA) Extension 1995 / Art Center College of Design, Pasadena, CA 1994-1992 / University of California Los Angeles (UCLA) 1993-1990 / Woodbury University, Burbank, CA 1991-1989 / Southern California Institute of Architecture (SCI-ARC), Los Angeles 1988

Professional Experience: Janek Bielski, Architect: Design to Constr 2005- Present / Senior Design Consultant: for Hak Sik Son, FAIA; large scale mixed use & commercial projects / Eric Owen Moss, FAIA: Schematic Design/ Design Development for San Diego Country Club project

Selected Publications and Recent Research: Experimental Architecture in Los Angeles (Rizzoli Books) / Violated Perfection (Rizzoli Books) / Re: American Dream (Princeton Press)

Licenses/Registration: Licensed Architect in the State of California / Royal Institute of British Architects (RIBA) Part 2 completed (of 3 parts)

• **Name:** Andrew Harmon

Courses: ARH 604: MS: Material and Methods of Construction: Building Detailing - Online

Educational Credentials: Masters of Architecture - University of Illinois at Urbana-Champaign 2004 – 2006 / Bachelor of Science in Architectural Studies - University of Illinois at Urbana-Champaign 2000 – 2004 / L'Ecole Nationale Supérieure d'Architecture de Versailles – Study Abroad 2002 - 2003

Teaching Experience: Adjunct Faculty - New York Institute of Technology 2013 / Visiting Studio Critic – New York Institute of Technology 2013 / Visiting Studio Critic – Columbia University GSAPP 2013 / Visiting Studio Critic – Pratt Institute 2012 / University of Illinois Research Assistant - Professor Lynne Dearborn, PhD 2005 – 2006

Professional Experience: Heintges & Associates Consultants, New York, NY 2006-present

Licenses/Registration: Registered Architect: Illinois (2012) / NCARB Certification (2012)

• **Name:** Gabriel Kaprielian

Courses: ARH 609: MS: Intermediate Design Studio 1 / ARH 659: MS: Digitally Generated Fabrication

Educational Credentials: University of California Berkeley - Master of Architecture and Master of City Planning (Urban Design) / California Polytechnic State University, San Luis Obispo, CA - Bachelor of Architecture

Teaching Experience: California State Polytechnic University - Department of Architecture, January 2015 - June 2015 San Luis Obispo, CA – Lecturer / University of California, Berkeley - College of Environmental Design, May 2014 - June 2014 Berkeley, CA – Lecturer / University of California, Berkeley - College of Environmental Design, August 2011 - December 2013 Berkeley, CA - Graduate Student Instructor

Professional Experience: Autodesk, September 2014 - January 2015; June 2015 – Present; San Francisco, CA - Artist-in-Resident / Eight Inc., June 2013 - August 2013; Singapore, Singapore - Freelance Designer/Consultant / San Francisco Port Authority, November 2011 - April 2012; San Francisco, CA - Design Intern / Architecture for Humanity, February 2011 - August 2011; San Francisco, CA - Design Fellow / Nexeus Mondiale, September 2010 - December 2011; San Francisco, CA - Freelance Designer/Consultant / Page and Turnbull, June 2010 - July 2010; San Francisco, CA - Freelance Designer/Consultant / Mark Horton Architecture, August 2009 - October 2009; San Francisco, CA - Freelance Designer/Consultant

Selected Publications/Recent Research: Exploratorium: Climate Change Adaptation Along the San Francisco Shoreline - exhibited work at the Exploratorium Fisher Bay Observatory Gallery in San Francisco that addressed adaptation strategies to climate change. / Autodesk Design Night: The Future of Cities- presented work at the Autodesk Gallery on how smart city design can transform our communities and our planet. / Design Like You Give a Damn: LIVE! 2013 - 4th annual Humanitarian + Resiliency Conference held at the Autodesk headquarters in San Francisco. / Vertical Cities Asia Symposium - Honorable Mention. / Paisea #26 La Costa – Waterfronts - published work from EWWUD. / Atmosphere 5: Design and Ecology Symposium 2013 / Venice Biennale 2012 - M.Arch thesis work exhibited at the 2012 Venice Biennale. / EWWUD_European Workshop Waterfront Urban Design 2012- week-long Waterfront Design Workshop in Lisbon, Portugal with students from universities in 7 countries throughout Europe.

• **Name:** James Mallery

Courses ARH 640: Architectural History- Introduction / ARH 641: Architectural History: Modernism and it's Global Impact

Educational Credentials: M. ARCH, California Polytechnic University, Pomona / PHD, University of California, Los Angeles, (Urban History). / MA, University of California, Los Angeles, (US History) / B.A., La Sierra University, (History & Political Science)

Teaching Experience Instructor for Ancient Architectural History at **Diablo Valley College, CA** 2013 / Instructor for American Architectural History at **Diablo Valley College, CA** 2009 / The Architectural History Graduate Assistant **California Polytechnic University, Pomona, Department of Architecture**, Pomona, CA, 2002-2003.

Professional Experience PERKINS + WILL ARCHITECTS, San Francisco CA. Project Architect [2005-2007, 2008-Current]

Licenses/Registration: Licensed Architect in California / LEED BD+C

• **Name:** *Jose Mayoral Moratilla*

Courses: ARH 609 Intermediate Design Studio Online

Educational Credentials: Masters in Architecture and Urban Design-Seville University / Master in Architecture II-Harvard University

Teaching Experience: Architecture Studio Instructor **Career Discovery Program, Teaching and Research Associate** - Harvard Graduate School of Design / Wentworth Institute of Technology / Boston Architectural College

Professional Experience: Herzog & de Meuron 2010-2012 / Abalos-Sentkiewicz 2014

Professional Memberships Licensed Architect in Spain eligible to practice in all of the European Union member states.

• **Name:** *Eric Reeder*

Courses: ARH 608: Advanced Design Studio 1- Concept, Context, & Typology

Educational Credentials: M. Arch, University of California, Berkeley, CA / B. A. in Environmental Design, University of Colorado, Boulder, CO / Courses in Urban Design, Prague, Czech Republic/CU Denver, CO

Teaching Experience: Part-Time Instructor, Academy of Art University, San Francisco, CA / Assistant Professor, Architecture Design Studios, Konkuk University College of Architecture, Seoul, Korea (ROK)

Professional Experience: CORE Collaborative, Founding Partner, Seoul, Korea (ROK) / Gensler, Project Architect, Design Leader, San Francisco, CA / TannerHecht Architecture, Project Architect, San Francisco, CA / Charles Bloszies Architect, Project Architect, San Francisco, CA / Baum Architects, Project designer, Seoul, Korea (ROK) / Adele Naude Santos, Designer, San Francisco, CA / David Tryba Architects, Intern, Denver, CO

Publications: 'Mountain Memory <Space Magazine (Korea), February Issue, No555, pp.112-117 2014 'Adaptations SEOUL' SPACETIME Publishers 07.2013 ASIA Times- Interview and publication. 2012 'Preservative Measures' Lantern Journal vol. I Issue 4- www.lanternjournal.org 2012 'Metro Exposure' AIK Journal of Korean Architecture, vol. 56, No.7, p.12, 2012.07 2004, Brief Histories, LOUD Paper Magazine, Volume 4, pp. 12-14

Licenses/Registration: Licensed Architect in California AIK-Korea (Architecture) KIID- Korea (Interior Design)

• **Name:** *Stephen Ratchye*

Courses: ARH 619: Advanced Design Studio 2- Concept & Comprehensiveness

Educational Credentials: M. ARCH, University of Texas at Austin / M. Science in Engineering, University of Texas at Austin / B. A. Philosophy, Harvard College

Teaching Experience: Academy of Art University, San Francisco Co-Teaching Design Studio and Lectures on Structures to Studio Classes / UCLA, Architecture Studio Structural Courses / Studio Reviews at UCLA, SCI-ARC, and USC / Teaching Assistant in Engineering and Architecture History at University of Texas at Austin

Professional Experience: Engineer, Thornton Tomasetti, San Francisco and Los Angeles, CA / Engineer, ARUP, San Francisco Los Angeles, and London

Publications: "Walls of Sound," S. Ratchye, *Structure*, May 2011 / *Concrete: The Sustainable Material Choice*, by the American Concrete Institute, ed. E. Lorenz, 2010 / "A Breath of Fresh Air," S. Ratchye, S. Carter, E. Shlemon, E. McConahey *Civil Engineering*, September 2008 / "Architecture Sustained in Concrete: The New San Francisco Federal Building," S. Ratchye, *Concrete International*, May 2006 / "Example Applications of Aesthetics and Efficiency Guidelines - Case Studies in Bridge Design," S. Billington, S. Ratchye *Concrete International*, Feb 2000

Licenses/Registration: Licensed Structural Engineer in California / Licensed Professional Engineer in California / Licensed Architect in the State of Illinois / LEED AP / Safety Assessment Program in California

• **Name:** Peter I. Strzebnik

Courses: ARH 801 OL Thesis

Educational Credentials: Master of Architecture, Ball State University, June 1996 / Diploma in Architecture, Technical University, Berlin, Germany, 1994-1996 / Military Service, German Air Force in Beja, Portugal, 1987-1989 / Linguistic and Cultural Exchange, Lycee St. Germain, Auxerre, France, 1984

Teaching Experience: Independent Study / Thesis ,since 2007, *Academy of Art University, San Francisco, CA* / Co-teaching of a design studio, Spring 2006, *Woodbury University, Burbank, CA* / Studio Critic, *Berkeley & California College of the Arts*

Professional Experience: Founder and Principal, *Nottoscale, San Francisco, CA*, March 2006-Present / Project Team Member, *Gordon H. Chong + Partners, San Francisco, CA*, October 2003-february 2006 / Project Designer, *Studio Daniel Libeskind, Berlin, San Francisco, CA* February 2000 - September 2003 / Designer, *Office for Metropolitan Architecture, Rotterdam*, November 1999-2000 / Project Team Member, *Schweitzer BIM, Los Angeles, CA*, May 1998-October 1999 / Detailer, *The Hill Partnership, Inc, Newport Beach*, May 1997-October 1997 / Detailer, *Nicholas Grimshaw & Partners, Berlin*, October 1996-March 1997

Selected Publications and Recent Research: Home House Project, Southeastern Center of Contemporary Art, 2003, winning entry / "Studienstiftung des Deutschen Volkes," *LA*, October 1997- April 1998 *Full university Scholarship for graduate Studies, 1994-1996*

Professional Memberships: Meandra

Licenses/Registration: Licensed Architect in California and Germany eligible to practice in all of the European Union member states.

New Support Faculty:

• **Name:** Nikolas Sherrow-Groves

Courses: Architecture Workshop- Structures

Educational Credentials: MS, Structural Engineering, University of California, Berkeley / BS, General Engineering, Harvey-Mudd College, Claremont, CA

Teaching Experience: Part-Time Instructor, Academy of Art University, San Francisco, CA

Professional Experience: Arup Engineering, San Francisco

Licenses/Registration: EIT, State of California / PE, State of California

• **Name:** Carl Wilford

Courses: ARH 330: Structures: Concrete, Masonry, & Tensile Systems / ARH 602: Graduate Design Technology 1: Structures

Educational Credentials: M.S., Structural Engineering, 1991, University of California, Davis / B.S., Engineering, 1985, Pennsylvania State University

Teaching Experience: Instructor, Academy of Art University, San Francisco, CA

Professional Experience:

Mr. Wilford joined Thornton Tomasetti in 1993 / He has extensive experience in structural engineering / He spent three years in West Africa, designing and managing the construction of education facilities and drinking water systems / areas of expertise include: commercial, education, healthcare, and construction administration

Licenses/Registration: Licensed Structural Engineer in California (S4116) / Licensed Civil Engineer in California (C50691) / Registered California Emergency Management Agency / Safety Assessment Program Evaluator (SAPV67100) Certified DSA Structural Plan Reviewer

Additional information that may be of interest to the NAAB team at the next accreditation visit:

Given the timing of our next visit, we feel that a response to this would be pre-mature or potentially not accurate. However, we will make sure to provide program developments of interest in the next report that will be submitted closer to the date of the next visit. Thank you for taking the time to review our report.