

University of Pennsylvania

Interim Progress Report for Year Two

Instructions and Template

November 30, 2018

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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 or Student Performance Criteria 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 and Student Performance Criteria.
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 Ellen Cathey (ecathey@naab.org) or David Golden (dgolden@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 2016 NAAB VISIT

CONDITIONS NOT MET

2016 VTR
None

STUDENT PERFORMANCE CRITERIA NOT MET

2016 VTR
A.7 History and Culture
A.8 Cultural Diversity and Social Equity
B.3 Codes and Regulations
B.10 Financial Considerations

3. TEMPLATE

Interim Progress Report

University of Pennsylvania

Department of Architecture

Master of Architecture

Baccalaureate degree (any discipline; and typically 124 undergraduate credit hours + 84 graduate semester credit hours)

Year of the previous visit: 2016

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: Wendell Pritchett

President of the institution: Amy Gutmann

Dean of PennDesign: Fredrick Steiner

Chair of Department of Architecture: Winka Dubbeldam

Individual submitting the Interim Progress Report: Scott Loeffler

Name of individual(s) to whom questions should be directed:

Winka Dubbeldam (winka@design.upenn.edu): Chair and Miller Professor

Scott Loeffler (scotl@design.upenn.edu): Assistant Director

Current term of accreditation: 2015-2023

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

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

A.7 History and Culture

2016 Team Assessment: Evidence of student achievement at the prescribed level was not found in student work prepared for ARCH 611: History and Theory III. The Global Architectural Discourse Colloquium generally explores the place of architectural practices in the larger social and political discourse. Limited evidence was found for exposing students to cultural norms of a variety of indigenous and vernacular settings. The colloquium format of this course suggests that the content of the course varies.

University of Pennsylvania, 2018 Response: Since the NAAB Assessment, the required course ARCH 611 has been changed to better engage students in a critical discussion of global architecture. The course now operates as separate modules exploring critical aspects of architectural knowledge in Gender and Environment. The courses are intersectional, using examples from across the global and historical spectrum to discuss spatial and social relationships. Students are given details about architecture and its relationship to society as read through the vernacular cultures of design in Egypt, Brazil, and Mongolia.

A.8 Cultural Diversity and Social Equity

2016 Team Assessment: Evidence of student achievement at the prescribed level was not found in student work prepared for ARCH 601: Design Studio III and ARCH 511: History and Theory I. No evidence was found in these courses (limited evidence found in ARCH 511) for an understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures.

University of Pennsylvania, 2018 Response: The ARCH 601 Urban Housing Studio builds on opportunities for social engagement first introduced in the ARCH 502 studios. ARCH 601 studio critics can recruit a project influencer as an outside voice who will help charge the studio content with applied knowledge. These include developers, government officials, NGO's or local entrepreneur who would provide social, political or economic context to the studio method. Opportunities include first-hand interaction with local community leaders, specific site based projects and hands-on engagement through fabrication and volunteerism. Recent studio examples include the design of Transitional Housing in conjunction with ProjectHOME of Philadelphia and a Drug Rehabilitation Housing for My Brother's Keeper in Camden, NJ, where students organized and worked alongside local residents in a "Clean the Streets Program" that included the construction of a Homeless Park serving the Homeless in the local community.

B.3 Codes and Regulations

2016 Team Assessment: It was recommended that the team look for evidence of student achievement at the prescribed level in student work prepared for ARCH 601: Design Studio III. The team found a consistent lack of understanding of, and the ability to apply, the principles of accessibility, including incorrect door swings, inadequate clearances, and exit routes that do not comply with life-safety codes.

University of Pennsylvania, 2018 Response: The ARCH 601 studio curricular goals are to explore hybrid forms of urban housing/dwelling with a commercial or cultural program that can co-exist with housing. Included in the studio objectives is the exploration of the massing and the urban environment that the project contributes to and the physical impact it makes on the city with a highly detailed façade. Studio projects are approximately 50,000 sq ft and relationships between the building massing, plans, sections and façade, with an understanding of vertical and horizontal pedestrian circulation are the key objectives in the studio. . Across all studio sections one week

is scheduled for Plans Development and a second week for Facades and Section development. During Plan Week topics of Accessibility and Life Safety are introduced that allow the students to develop the following deliverables for the semester's final review: 1. 1/16" Building Floor Plans Showing Housing Unit Variation. Detailed to Include Building Services, Elevators, Emergency Stairs, and Door Swings. 2. 1/8" Housing Unit Detail Plans. One unit detailed to include Accessibility Requirements. 3. Building Circulation Diagrams [Including Life Safety Routes].

B.10 Financial Considerations

2016 Team Assessment: Evidence of student achievement at the prescribed level was not found in student work prepared for ARCH 531: Construction I; ARCH 671: Professional Practice I; or ARCH 672: Professional Practice II. While construction cost estimating was found, evidence for project financing methods and feasibility, operational costs, and life-cycle costs was not found.

University of Pennsylvania, 2018 Response: ARCH 672 Professional Practice I: The Project
The focus of this course is on the process of designing, documenting, and managing the creation of a building. In this context, the class examines how cost management and estimating are handled to insure conformance to a client's budget as well as the life and program of a building. Discussions include the nature of cost estimation at different phases of design and documentation and how the cost estimating and value engineering process work relative to the completion of construction documents.

The budget and estimating conversations also touch upon the different costs affiliated with the project and how the architect can influence and vet the client's project budget to insure they accommodate known and unknown circumstances as well as affiliated enabling costs (hard, soft, land, and contingency reserve).

ARCH 771 Professional Practice II: The Practice (syllabus included beginning on page 12)
This course enables a more thorough conversation about the many issues related to liability, the operation of a firm, managing resources, and the project financing methods and feasibility including operations costs and life cycle costs.

The discussions are divided among a few lectures and touch upon the following topics:

Project Financing Methods:

This category discusses the stages of financing throughout the project development process as well options for funding different types of projects (single family, multi family, commercial, institutional or governmental).

- Financing terms and concepts
- Stabilization
- Collateral and Risk
- Project Value
- Loan to Value Ratio
- Load to Cost Ratio
- Collateral and Guarantees
- Debt Service
- Property Value

- Capitalization Rate
- Amortization

The discussion of financing also includes a refresher from previous Building Code discussion about key zoning and building terms that overlap significantly with financing:

- Floor are Ratio (FAR)
- Lot Area vs. Building Area
- Gross vs. Net Site Areas

Types of Loans Available

- Bank Loans (early phase vs. permanent construction loans)
- Construction Bank Loans
- Lending Exchanges
- SBA Loans
- Tax Increment Financing
- Historic and Sustainable Tax Credits
- Industrial Revenue Bonds
- Local, State, Federal Funding opportunities (infrastructure bills, state incentives)

Development Schedule:

The class also overlays the Design and Construction Schedule discussed during the “Project” phase of Professional Practice with the Development Schedule including the following phases:

- Due Diligence
- Land Acquisition
- Re-zoning (as necessary) or lot mergers
- Pre-development / Design / Enabling Project(s)
- Development including Fast Track Schedule
- Sale or Stabilization (operation)

Pro Forma Template:

The class walks the students through the creation of a Pro Forma to contextualize the values and priorities developers and other real-estate value driven clients possess when hiring an architect. The evaluation will take the students through the basic components of the Pro Forma to establish the potential viability of the project:

- Calculating Project Revenue by type / region / date of expected completion
- Calculation Project Costs (land, design, amenities, Site work or enabling, management and overhead, soft costs)
- Cash flow before financing
- Financing interest
- Cash Flow Table projected over multiple years and quarters
- Testing Pro Forma against real world changes (higher costs of construction, longer or shorter construction schedules, higher interest rates, different sale or lease pricing)

Life Cycle Cost Analysis:

This discussion engages how the cost and quality of select products or the use of specific systems to accelerate construction can benefit the short- and long-term costs of the project.

Using case study examples, the lecture investigates the following scenarios:

- Structural System comparisons in fast-track construction benefiting the construction schedule to reduce financing costs, temporary lease costs, as well as hard construction costs. A case study evaluation of steel vs. concrete in a real-world application is included in the discussion.
- The capital investment in sustainable systems relative to the amortization of savings in utility costs as well as potential maintenance costs or the cost of any system redundancy that may be required. A case study evaluation of geothermal wells for providing chilled water to the HVAC plant of a building is discussed. This case study discusses first costs, redundancy for critical systems based on program type, determination of reliability of wells, and long-term maintenance.
- Examination of the benefits of “better than code baseline” energy code wall and systems design relative to first cost, maintenance, and energy savings over the life of the building is assessed.

ARCH 531 Construction I

Throughout the course, there are assessments of materials and systems in relation to performance, longevity, and cost in the context of the client’s project goals. This analysis looks at particular systems or materials in isolation, much like real world design assessments, to examine how architects develop a compelling argument for or against a particular decision that may impact cost, quality, and/or long-term performance.

2. 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).

University of Pennsylvania, 2018 Response: The University of Pennsylvania has a new Provost, Wendell E. Pritchett. At the Department we started new collaborations with the R&D group Cemex located in Biel, Switzerland, the Water Department of Athens, Greece, and with a developer in Istanbul. Our Robotics Lab is now finished, and we added curriculum specific to the relationship of Robotic manufacturing and Design in second year, taught by Assistant professor Robert Stuart Smith, hired on our Standing Faculty to fill that role. We improved the use of space; we have reorganized our curriculum so that we have a much better use of space. PennDesign is also renovating a large classroom space across from our building on Walnut Street.

3. Summary of Activities in Response to Changes in the NAAB Conditions [2014 NAAB Conditions](#)

University of Pennsylvania, 2018 update: Not Applicable

4. **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)

University of Pennsylvania, 2018 update: [Click here to enter text.](#)

COURSE DESCRIPTIONS FOR NAAB SPC A.7

Arch 611 Module 1: From Kitchen to Counter-History: Gender, Difference, and Dissent Course Description

How do our sources determine the histories we are able to tell about architecture, urban space, and the agents that enliven it? How do we reconcile seeming absences and actual acts of erasure that stare back at us from the archive? How can feminist theory help us to chart new avenues for writing critical architectural histories that are attentive to discourses of difference but also narratives of equity? And finally, which methods can we employ to uncover histories that actively resist dominant regimes of power and corresponding systems of knowledge?

In this course, we will engage the writing of architectural histories that ask how feminism (from eco-feminism to intersectional feminism) can spearhead new methods of research, objects of study, and ways of seeing and analyzing spaces, buildings, cities, and human alliances within them. As such, the course will highlight feminist theoretical discourse that has helped reframe architectural history since the 1960s and investigates how these ideas have informed the discipline. As recently suggested by the Feminist Art and Architecture Collaborative (FAAC), we will examine contested spaces and will engage how historical actors have formed networks and associations to resist dominant spatial regimes. In addition, we will seek to think inclusively about architectural actors, placing an emphasis on unconventional architectural writing including autobiographies, manifestoes, poetry, novels, and science fiction as critical forms of expression.

Overall, the course champions dissent, resistance, revision, inclusion, and empowerment through the writing of architectural histories. This general framework is supported through reading, discussion, interactive presentations, and collaborative research. Together we will organize a final conversation on research and a final research paper. I am also eager to provide time and space for participants in class to discuss pressing issues of difference and equity.

Arch 611 Module 2: the Architecture of Urban Culture 1930-1980 Course description

Insofar as cities throughout the world are growing in size and cultural importance, individuals entering the architecture profession must be prepared to approach the several tasks of urban architecture with understanding, confidence, and imagination. Failure to grasp the challenge and opportunity of shaping urban culture will marginalize practice. Most histories of modern architecture celebrate designs of small, rather isolated buildings, and criticize projects that proposed entire cities or large sections of them. Less well studied, but quite possibly more relevant today, is the middle scale, at which the new architecture inaugurated urban transformation by example, not comprehensive design.

This seminar has a simple thesis: positive urban transformation can result from discordant insertions that prompt new developments, previously seen to be unlikely. We will examine and interpret urban projects built in cities throughout the world during the five middle decades of the 20th century. Spatial techniques will occupy our attention, as will concepts and theories articulated by designers. But no less important will be concerns of common culture: social justice, intelligent use of natural resources, and appropriate, legible, and beautiful form.

611 Module 3: Architecture and Media

This course will explore aspects of the history of architecture as media, approaching the practice and products of the field on the terms of visual, screen-based, and interactive media conditions as they have developed over the last century. In particular, we will examine how visual and mediatic interventions became a crucial aspect of architectural engagement with social, economic, and geophysical systems, and how, simultaneously, architectural image-making techniques became an important interdisciplinary site for understanding the cultural effects of knowledge about the built environment.

These narratives, images, and methods also suggest a complex relationship to the present. Rather than examine instrumental aspects of these methods and their histories, we will explore different conceptual means for the analysis of media, technology, and architecture.

Course descriptions for NAAB SPC B.10

PENN DESIGN

ARCH 771 – Professional Practice II – The Practice

Fall 2018

Class Location: Meyerson B-3
Class Time: Thursday 2:00-5:00pm

Instructor: Philip Ryan RA AIA info@studiomodh.com

Teaching Assistant: Mostafa Akbari akbariae@design.upenn.edu
Xeuxia LI xuexiali@design.upenn.edu

Introduction Arch 751 is the second of a two course sequence that discusses the issues and processes involved in running a professional architectural practice and designing buildings in the contemporary construction environment.

Arch 751 will build on the knowledge of the Project process gained in Arch 672 to examine the way in which an office is “designed” to facilitate the execution of design and construction. Issues of finance, liability, ethics, and the codes that overlay atop the design and construction industry will be discussed.

The lectures will draw connections between the student’s studio design knowledge to date and the instructor’s experience in practice including local building examples and guest lectures by relevant professionals. Guests from within the field of architecture and construction (and outside occasionally) will round out the semester lectures.

The instructor will also hold an open lecture, (for any students in the Design school to attend) describing hiring processes common to many offices in American architecture.

Format The course will be lecture based with active class participation during the lecture (that will be tracked by the instructor), moderated discussions, and guest lectures. Limited reading assignments will be given to support specific lecture topics. Group research and lecture topics will be assigned as well as a Final Assignment announced at the midpoint of the semester.

Grading Grading will be based on three aspects of the course:
20% Attendance
40% Assignments
40% Final Examination

Letter grades will be given in accordance with UPENN guidelines following the A to F letter grade format:

A+	99% and higher	C+	77-79
A	95-98	C	73-76
A-	90-94	C-	70-72
B+	87-89	F	Below 69

B	83-86	I	Incomplete
B-	80-82		Incompletes must be approved by Registrar and Instructor prior to completion of the semester and are only granted for medical circumstances.

Required Text *Professional Practice, A Guide to Turning Designs into Buildings, Paul Segal FAIA*

The Architecture Student's Handbook of Professional Practice, 14th edition

American Institute of Architects, Code of Ethics & Professional Conduct, 2012

Other reading material will be assigned in class and posted to a class website

Class Website The class will use the University of Pennsylvania Canvas course website for the distribution of assignments, information, and all discussion regarding grades or issues related to the class. This is a secure website that is being used, in accordance with Federal and University policies, to protect your privacy. The site is located at : <https://canvas.upenn.edu/courses/1413835>

Attendance Policy Attendance is critical due to the volume of issues discussed in each lecture class. Attendance shall be taken at the beginning of class. One absence will be allowed without impacting the student's grade. Each additional absence will reduce the student's grade. It is the student's responsibility to make up missed content via peer notes and downloading lecture slides from class website.

Assignments Assignments will be given on focused topics or document related to lectures and/or progress in the 600 level studio. The first half of the class will be devoted to lecture content, the second half of the class will facilitate preliminary preparation and question/answer regarding the current assignment. Assignments will be produced in groups in order to facilitate collaboration and afford a more in depth investigation of the content. In-class presentations will be a critical part of the assignment and groups will self-grading of colleagues will represent a portion of each assignment grade.

Assignments are uploaded to the Canvas site with all necessary attachments.

Instructor Philip Ryan is the principal and founder of Studio Modh Architecture (www.studiomodh.com). Prior to forming the studio, Philip Ryan worked for Tod Williams Billie Tsien Architects in New York for fourteen years in design and management leadership capacities before leaving as a Senior Associate in 2012. His design and construction experience while at the office was extensive including notably the design and construction of the AIA Honor Award winning American Folk Art Museum in New York, the AIA Honor Award winning Skirkanich Hall at the University of Pennsylvania, and the AIA Honor Award winning Barnes Foundation in Philadelphia, PA. The experience at Tod

and Billie's studio has equipped him with a deep appreciation for the capabilities of architecture to enhance place as well as a sophisticated understanding of how to innovatively use material and detail buildings of import. Teaching is a critical component of the architectural process and Philip has taught graduate and undergraduate studios at the Rhode Island School of Design and City College of New York. He has been a guest critic at the University of Texas at Austin, RISD, Yale University, City College, Columbia University, and the University of Pennsylvania. Philip is a registered Architect in the state of New York and Pennsylvania, a member of the American Institute of Architects, and has been certified by NCARB.

University of Pennsylvania's Code of Academic Integrity

Since the University is an academic community, its fundamental purpose is the pursuit of knowledge. Essential to the success of this educational mission is a commitment to the principles of academic integrity. Every member of the University community is responsible for upholding the highest standards of honesty at all times. Students, as members of the community, are also responsible for adhering to the principles and spirit of the following Code of Academic Integrity.*

Academic Dishonesty Definitions

Activities that have the effect or intention of interfering with education, pursuit of knowledge, or fair evaluation of a student's performance are prohibited. Examples of such activities include but are not limited to the following definitions:

Cheating	Using or attempting to use unauthorized assistance, material, or study aids in examinations or other academic work or preventing, or attempting to prevent, another from using authorized assistance, material, or study aids. Example: using a cheat sheet in a quiz or exam, altering a graded exam and resubmitting it for a better grade, etc.
Plagiarism	Using the ideas, data, or language of another without specific or proper acknowledgment. Example: copying another person's paper, article, or computer work and submitting it for an assignment, cloning someone else's ideas without attribution, failing to use quotation marks where appropriate, etc.
Fabrication	Submitting contrived or altered information in any academic exercise. Example: making up data for an experiment, fudging data, citing nonexistent articles, contriving sources, etc.
Multiple Submissions	Multiple submissions: submitting, without prior permission, any work submitted to fulfill another academic requirement.
Misrepresentation of academic records	Misrepresentation of academic records: misrepresenting or tampering with or attempting to tamper with any portion of a student's transcripts or academic record, either before or after coming to the University of Pennsylvania. Example: forging a change of grade slip, tampering with computer records, falsifying academic information on one's resume, etc.

Facilitating Academic Dishonesty	Knowingly helping or attempting to help another violate any provision of the Code. Example: working together on a take-home exam, etc.
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Unfair Advantage	Attempting to gain unauthorized advantage over fellow students in an academic exercise. Example: gaining or providing unauthorized access to examination materials, obstructing or interfering with another student's efforts in an academic exercise, lying about a need for an extension for an exam or paper, continuing to write even when time is up during an exam, destroying or keeping library materials for one's own use., etc.
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* If a student is unsure whether his action(s) constitute a violation of the Code of Academic Integrity, then it is that student's responsibility to consult with the instructor to clarify any ambiguities.

PENN DESIGN

ARCH 751 – Professional Practice II – The Practice

Fall 2018

Lecture 1	Business of Practice I
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09/06/18	In this lecture we will evaluate the legal and organizational structures around architectural practice. We will also discuss the vision for how practices are formed and how to do it.
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Readings	The Architecture Student's Handbook of Professional Practice Chapter 4 : Developing a Practice P 76-110
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Assignment	Starting a Company
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Lecture 2	Business of Practice II
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09/13/18	In this lecture we will discuss the cost of running a practice and how that informs how to charge a client for services you will deliver.
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Readings	The Architecture Student's Handbook of Professional Practice Chapter 5 : Running a Practice P 145-173
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Assignment	
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Lecture 3	People of Practice : Hiring, building project teams
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09/20/18	In this lecture we will discuss the cost of running a practice and how that informs how to charge a client for services you will deliver.
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Readings	The Architecture Student's Handbook of Professional Practice Chapter 5 : Running a Practice P 145-173
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Assignment	
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Lecture 4	Ethics of Architecture
09/27/18	In this lecture we will discuss the AIA code of ethics and case studies involving potentially complex ethical challenges for architects..
Readings	AIA Code of Ethics Ethics Case Studies as provided by instructor
Assignment	
Lecture 5	Marketing your Practice
10/11/18	In this lecture we will discuss the strategy for setting your practice apart from other practices and how to execute a marketing strategy in the 21 st century.
Readings	The Architecture Student's Handbook of Professional Practice Chapter 4 : Developing a Practice P 121-143
Assignment	
Lecture 6	Legal Matters I : Liability and the Owner/ Architect Agreement
10/18/18	In this lecture we will discuss the broad legal risks and liabilities of being an architect and the negotiation of contracts with Owners.
Readings	The Architecture Student's Handbook of Professional Practice Chapter 11 : Agreements with Owners and Owner-Generated Agreements P 576-602 AIA Contract B101, B105
Assignment	
Lecture 7	Legal Matters II : Owner / Contractor Agreement
10/25/18	In this lecture we will continue to discuss the broad legal risks and liabilities of being an architect and the agreements that can impact Architects even when they are not a party to them.
Readings	The Architecture Student's Handbook of Professional Practice Chapter 11 : Construction Contracts and other AIA Documents P 612-634 AIA Contract A201 AIA Contract A101, A105
Assignment	

Lecture 8	Rules that Govern Practice I : Building Code, Energy Code, and Zoning
11/1/18	In this lecture we will review in greater detail the International Building Code, local modifications, and how zoning can impact design.
Readings	The Architecture Student's Handbook of Professional Practice Chapter 10 : Community Planning Controls and Building Codes and Standards P 533-574 IBC Code book
Assignment	Occupancy load, egress design of studio project – see CANVAS description
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Lecture 9	Rules that Govern Practice II : American with Disabilities Act and Accessible Design
11/8/18	In this lecture we will review federally mandated laws for accessibility and adaptability.
Readings	The Architecture Student's Handbook of Professional Practice Chapter 10 : Community Planning Controls and Building Codes and Standards P 533-574 Department of Justice American with Disabilities Act
Assignment	ADA Accessibility of studio project – see CANVAS description
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Lecture 10	Financing Projects : Process, Funding, and the Pro Forman
11/8/18	In this lecture we will review how architects, developers, and clients work together to plan, fund, design, construct, and then sustain projects in a commodified real estate market.
Readings	Pro-Forma 101: Getting Familiar with a Basic Tool of Real Estate Analysis http://plannersweb.com/2013/12/proforma-101-getting-familiar-with-a-basic-tool-of-real-estate-analysis/
Assignment	None
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Case Study	Starting a small Practice : Studio Modh Architecture
	This lecture will trace the decision-making process, costs, and lessons learned from starting a small practice.

Additional Information

MODIFIED CURRICULUM:

After reviewing multiple proposals through 2015 and 2016, the faculty in Architecture agreed on the revised curriculum explained below. It includes a number of other adjustments to individual courses to accommodate their actual content and work load, and takes into consideration that the first year students have a hard time organizing their time. So we reduced the first and second year load and increased the third year load.

The new curriculum includes the following 6 adjustments, which taken together increases the total CUs for the degree from 28 to 29 CUs. This does not increase the cost to students or reduce the number of electives.

1. Reduce the student overload in the first year by reducing the number of courses taught each semester, moving Arch 533 & 534: Environmental Systems I & II to the second year, renumbering them to Arch 633 & 634. Their content remains the same, and they will be taught in the same format as Construction and Structures, with a weekly lecture and bi-weekly workshop.
2. Increase Arch 532: Construction II to at 1.0 CU format to accommodate the incorporation of instruction in Building Information Modelling (BIM) in bi-weekly workshop sessions.
3. Reduce Arch 631: Case Studies to a 0.5 cu format to accommodate the movement of Environmental Systems. The work of the course is reduced to fit a 0.5 CU workload.
4. Offer a new 1.0 CU, required course, Arch 636: Material Formations to synthesize the work in the technology sequence.
5. Move the professional practice, Arch 671 & 672 sequence to the 4th and 5th semesters, changing the numbers to Arch 671 & 771. Increase the second course from 0.5 CU to 1.0 CU to reflect the content required for accreditation.
6. Combine the requirement for Arch 632 and Arch 638: Designated Technology Electives into a single 1.0 CU requirement that students can satisfy with 1 Arch 732 at 1.0 CU or 2 Arch Technology Elective 736.

A summary of the new curriculum follows.

Master of Architecture: Professional Degree Curriculum

Year 1

Fall	Course Units
ARCH 501 Design Studio I	2
ARCH 511 History and Theory I	1
ARCH 521 Visual Studies I	0.5
ARCH 531 Construction I	0.5
ARCH 535 Structures I	0.5

Spring

ARCH 502 Design Studio II	2
ARCH 512 History and Theory II	1
ARCH 522 Visual Studies II	0.5
ARCH 532 Construction II	1
ARCH 536 Structures II	0.5

Year 2

Fall	
ARCH 601 Design Studio III	2
ARCH 611 History and Theory III	1
ARCH 621 Visual Studies III	0.5
ARCH 631 Technology Case Studies	0.5
ARCH 633 Environmental Systems	0.5

Spring

ARCH 602 Design Studio IV	2
ARCH 670 Professional Practice I	0.5
ARCH 636 Material Formations	1
ARCH 634 Environmental Systems II	0.5
ELECTIVE I	1

Year 3

Fall	
ARCH 701 Design Studio V	2
ARCH 771 Professional Practice II	1
Elective II	1
Elective III	1

Spring

ARCH 704 Advanced Design Studio	2
ARCH 632/638 Technology Elective	1
Elective IV	1
Elective V	1

Total Course Units **29**

NEW STANDING FACULTY APPOINTED SINCE 2015:

Dr. Masoud Akbarzadeh

Tenure-Track Assistant Professor of Architecture

Masoud Akbarzadeh is an Assistant Professor of Architecture in Structures and Advanced Technologies and the Director of the Polyhedral Structures Laboratory (PSL). He holds a PhD from the Institute of Technology in Architecture, ETH Zurich, where he was a Research Assistant in the Block Research Group. He holds two degrees from MIT: a Master of Science in Architecture Studies (Computation) and an MArch, the thesis for which earned him the renowned SOM award. He also has a degree in Earthquake Engineering and Dynamics of Structures from the Iran University of Science and Technology and a BS in Civil and Environmental Engineering. His main research topic is Three-Dimensional Graphical Statics, which is a novel geometric method of structural design in three dimensions.

Robert Stuart-Smith

Tenure-Track Assistant Professor of Architecture

Robert is an Assistant Professor of Architecture at PennDesign specializing in robotic manufacturing and generative design, and the Director of the . He is a director of RIBA Chartered Architectural practice Robert Stuart-Smith Design, co-founder of computational research group Kokkugia, and a Principle Research Associate in Computer Science at University College of London for Aerial Additive Building Manufacturing (Aerial ABM) — an EPSRC funded research project developing an autonomous robot swarm system for in-situ 3D-printed construction. Prior to joining the faculty at UPENN, Robert was a Studio Course Master for eight years at the Architectural Association School of Architecture in London, predominantly in the AA.DRL Masters program. He has also taught at Washington University, RMIT, University of Innsbruck, and University of East London. Robert received a Bachelor of Architecture and Bachelor of Science in Environmental Design from the University of Canberra and holds a Masters in Architecture + Urbanism from the Architectural Association School of Architecture's Design Research Laboratory. Prior to establishing his own practice, Robert worked in Arup's Advanced Geometry Unit and the architectural practices of Grimshaw Architects and Lab Architecture Studio. Robert's practice recently received a Royal College of Art Design Innovation Award, and has been published in journals such as L'Architecture D'Aujourd'hui, L'Arca and AD: Architectural Design. He has been a three times nominee for the Lakhov Chernikov Prize, and his work has been acquired by the FRAC gallery in Orléans, France.

Dr. Sophie Hochhäusl

Tenure-Track Assistant Professor of History and Theory

Sophie Debiasi Hochhäusl is an Assistant Professor for Architectural History and Theory. Her scholarly work centers on modern architecture and urban culture in Austria, Germany, and the United States, with a focus on the history of social movements, environmental history, and women's and gender studies. In the academic year 2017-2018 Professor Hochhäusl was the

Frieda L. Miller Fellow at the Radcliffe Institute for Advanced study at Harvard University. Hochhäusl received an M.Arch from the Academy of Fine Arts Vienna, and an M.A. and Ph.D. from Cornell University in History of Architecture and Urbanism.

Dorit Aviv:

Tenure-Track appointment as Assistant Professor begins 2020

Dorit Aviv is a designer and researcher specializing in the fields of energy and ecology. Currently a Ph.D candidate at Princeton University, her work investigates the relationships between thermodynamics, geometry and material science.

Prior to PennDesign, Aviv taught at The Cooper Union, Pratt Institute, and Princeton University and has practiced in design roles at Tod Williams Billie Tsien Architects, KPF New York and Shanghai, and Atelier Raimund Abraham. She earned an M.Arch and certificate in urban planning from Princeton University's School of Architecture and Woodrow Wilson School of Public Policy in 2014. She completed her B.Arch at The Cooper Union in 2009.