Interim Progress Report

Arizona State University The Design School Master of Architecture (M.Arch)

Track I (Pre-professional degree + 56 graduate credit hours)
Track II (Undergraduate degree + 99 graduate credit hours)

Year of the previous visit: 2018

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

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

Name: Paola Sanguinetti

Title: Director of the Design School Email Address: paola.sanguinetti@asu.edu

Physical Address: 1001 S Forest Mall, Tempe, AZ 85287

Any questions pertaining to this submission will be directed to the chief administrator for the academic unit in which the program is located.

Chief academic officer for the Institution:

Name: Michael Crow Title: President Email Address: mc71@asu.edu

Physical Address: 300 E University Dr Suite 410

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

a. Progress in Addressing Not-Met Conditions

I.2.1 Human Resources and Human Resource Development

2018 Visiting Team Assessment: ASU did not meet this criterion in its 2012 NAAB Accreditation under the 2009 Conditions for Accreditation. It is again not met under the 2014 Conditions for Accreditation. The team was not informed that a clear path to correct this is ensured. The 2017 APR by ASU provides the narrative describing Human Resources and Human Resource Development for Faculty and Staff in the APR on pp. 37-39 and 43-55. Additional information was gathered in conversations with institute administrators Dean Tepper, Associate Dean Staufer, Design School Director Schupbach, Interim Program Head Horton, and the architecture faculty and students.

In reviewing the APR submitted by the ASU architecture program and in discussion with the Dean and school leadership, the 2018 visiting team found that the architecture program currently has 15 full-time faculty, of which one serves as the program head and also carries other administrative responsibilities. Full-time faculty is joined by faculty associates teaching as part-time instructors and adjunct faculty. The faculty is dedicated and engaged with the students, who commented positively on their availability and mentorship. The architecture program currently searches for a new program head and an offer has been made. A tenure-track search is still ongoing.

The visiting team found that the faculty is very dedicated and thoughtful. Faculty make every effort to be accessible and supportive of students, their learning, achievements and development and they appreciate the support they receive from the current program leadership and the new director of The Design School in this endeavor. However, the visiting team also noted that with growing enrollment numbers and the departure of faculty who were not immediately replaced, the pressures on faculty have continued to increase since the 2012 NAAB visit. A situation that had been identified as critical then, has not improved. Workloads for faculty remain high, coordination of courses as well as class sizes have since increased and impact the tutorial exchange between student and teacher promoting achievement for both groups. The strain on existing faculty thus persists. The typical workload distribution for faculty is broken down in 40% teaching, 40% research & creative activities, and 20% service. As a reaction to the pressures on faculty, the school administration now, in coordination with the individual faculty member, identifies the distribution of responsibilities with greater flexibility for each faculty member in the areas of teaching, research and creative activities, and service (APR, p. 46). The new flexibility to increase some faculty members' teaching load alleviates some pressure, but it does not solve the fundamental problem and the visiting team is concerned that even the expected two new hires will not suffice to balance the workload for faculty to fully support student learning and achievement as well as provide adequate opportunity to pursue professional development or to teach and/or develop electives in line with their research interests that would contribute to program improvement.

Philip Horton currently serves as the Architect Licensing Advisor for ASU. He was trained in the issues of the Architect Experience Program (AXP), has regular communication with students, and is fulfilling the requirements as outlined in the ALA position description. Horton introduces students to AXP during his ARP 584 Internship class. Students confirmed that AXP information is available to them and that they feel well-advised on concerns relating to internships. Since the last accreditation in 2012, administrative services expanded though creating four additional staff positions to now six administrative staff members in The Design School, and five staff members who oversee the prototyping and shop facilities. In 2017, the staff positions for a Community Outreach Specialist and for a Communications Specialist have been filled and several additional staff members to support the Prototyping Shop within The Design School were hired. The staff is dedicated and invested in the architecture program and The Design School. In the 2018 visiting team's meeting with staff it became apparent that the new hires were helpful but that continuous growth within the architecture program still leaves staff stretched to capacity. This is a concern considering the Design School's and the architecture program's desire to grow. Staff did report and was appreciative of their access and support for professional development both from the university and the Design School.

Student support services on both the undergraduate and graduate level are described in the APR, pp. 48-54. Graduate advisors for architecture students appeared knowledgeable, invested and accessible to the students who expressed their appreciation for the *support* they receive through staff, faculty and administration. The in-house advising and support services are further supported by a wide range of student support services provided by ASU. Information and references are also available online. Faculty and students were especially appreciative of the support of Professor William Heywood. His *expertise in team building, creative collaboration and mindfulness has been noted as an asset within the Design School.*

Arizona State University, 2021 Response:

ASU Mission

Arizona State University's mission is as follows:

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

Over the past three years, faculty, students, and staff have begun to redesign the Architecture Program to align with the mission of ASU. This presents a series of challenges and opportunities. Each architecture program in the United States and Canada is exclusive. We are redesigning our program to be *radically inclusive*. As a result of this redesign, we have had to rethink how we teach, how we use space, how we advise, how we conduct research, how we collaborate across the university, and how we partner with our communities.

The following will respond to the requests of the Interim Report and will act as a preview of a Substantive Change Review to be submitted in December.

Program Structure

In 2009 the College of Design merged with the Katherine K. Herberger College of the Arts to create the Herberger Institute of Design and the Arts (HIDA). A School of Architecture existed within the College of Design, which was led by a Dean who is an architect. In the merger, the Design School was created as one of six units in HIDA. Within the Design School, there are five sub-units: Architecture, Interior Architecture, Landscape, Industrial Design, and Visual Communications. Thus, the Architecture Program sits within the Design School, which sits within the Herberger Institute of Design and the Arts.

According to a study completed by the Association of Collegiate Schools of Architecture (ACSA), the Architecture Program at ASU is the only program in the United States and Canada that is not administered at the institution-, college-, or school-level (see appendix). This has, and continues to, present difficulties to secure resources and support. For example, the Architecture Program shares all resources and staff with other programs in the Design School and there is no direct administrative support. Attempts to restructure the program have not been successful. Still, the complete redesign of the program has worked within these limitations.

The comments above from previous Visiting Team Reports, should be read in this context. ASU is a state university with very real budget constraints combined with a mission to broaden the access to higher education. To accomplish these contrasting goals, we need to innovate.

Program Leadership

A search was completed for the Architecture Program Head. Marc J Neveu began in Fall 2018. Paola Sanguinetti was hired as the Director of the Design School in Summer 2021. Biographies can be found in the appendix of this document.

Program Faculty

We currently have eighteen full-time faculty, with four searches planned in this academic year.

Since the 2018 Visiting Team Report, the following faculty have been hired:

Marc J Neveu, Professor, Architecture Program Head

Juan Felipe Mesa, Assistant Professor

Dongwoo (Jason) Yeom, Assistant Professor

Zoe Cope, Clinical Assistant Professor

Katherine Dudzik-Smith, Instructor

The following searches are planned for this academic year:

Tenure-eligible with a focus on architecture and energy

Tenure-eligible with a focus on extreme environments (cross appointed with the School of Sustainability and the Built Environment)

Instructor of Architecture

Targeted Hire with tenure (Provost approved position to support diversity)

Faculty Redistribution

As our enrollment is increasing, we are redistributing faculty and are in the process of rethinking how we teach. Our non-professional undergraduate degree was traditionally taught as a professional program – with 5-unit studios and courses in history/theory, representation, and technology. Studios were typically held to a 1:15 faculty to student ratio. We are redesigning the curriculum to shift the studios to three units and adjusting the model to employ a cohort of graduate Teaching Assistants. In the first year of the program, the ARC 101 studio has 334 students and is coordinated across three sections with three full-time faculty and twelve TAs. This supports our graduate students, opens up mentoring opportunities, and gives access to over 275 qualified students who, under the previous curriculum, would not have been admitted. This also allows for more full-time faculty to teach in the smaller cohorts of the graduate program.

For AY2021-22 and AY2022-23, the post professional MSArch program has been put on hold while we redesign the program. The previous model was very faculty intense and with low enrollment. This too allows full-time faculty to be more fully committed to teaching in the professional graduate program.

Revenue Diversification

Budget modelling at ASU is complex. The administrative structure of the Architecture Program, as a sub-unit of the Design School, within the Herberger Institute of Design and the Arts, further complicates our financial model and access to resources. Given our extremely limited resources, we are working to diversify our revenue streams. To do so, we are engaged in the following activities and initiatives:

- Increasing enrollment and FTE
- Expanding research opportunities
- K-12 outreach
- Continuing Education
- Online coursework
- Summer coursework

We understand that each of the above will require additional resources. We are partnering with academic units at ASU and professionals in our communities to leverage and share resources. These initiatives also align with the overall organization of ASU into three enterprises: Knowledge Enterprise (research), Academic Enterprise (degree granting coursework), and the Learning Enterprise (life-long learners).

Faculty Workloads

Beginning in 2019, all full-time faculty loads were reviewed and teaching assignments were corrected to align with teaching loads. In 2020 a mapping of all teaching loads through 2025 was created. All full-time faculty know what they will be teaching in the next five years. This includes new course builds, electives, studios and lectures as well as planning for sabbaticals, hires, and retirements. The map can be provided upon request.

We have dramatically increased the number of Faculty Associates (adjunct faculty) to accommodate the correction of full-time faculty loads as well as increased enrollment. This has led to a younger and more diverse faculty with closer ties to our professional community.

Operations Team

The Business Operations team coordinates all operations and transactions for The Design School. The services they provide to the Architecture Program include hiring and onboarding of faculty and faculty associates, coordination of class travel and field trips, honoraria disbursement for visiting critics and reviewers, any procurement needed for course materials, coordination of all events including final reviews, and coordination of all internship applications. The Design School is going through staff changes and we are currently in the process of hiring new staff for the positions listed below. The business team members oversee six business and computer science students who assist in a variety of ways with tasks ranging from data analytics, automation, and transaction reconciliation.

Business Operations Manager—Angie Biddle

Business Operations Specialist, Sr.—Than Ngoc Huynh (in hiring process)

Business Operations Specialist—TBD (currently being searched)

Curriculum Coordinator—Eleni Sholes

Advising Team

The Design School's Graduate Advising team has grown over the last couple of years, adding one new member to assist in coordinating admissions, graduate student advising, and annual recruitment and professional community events. We are additionally in the process of hiring a fourth member for this team to focus entirely on admissions processing, freeing up our advisors to work on longer-term strategic plans and initiatives for all graduate programs.

Coordinator, Sr.—Corie Cisco

Graduate Coordinator—Christy Brown

Graduate Coordinator—Jacky Collens

Admissions Coordinator—TBD (to be searched in January 2022)

Communications Team

The communications team has also undergone a restructuring with a new Marketing and Communications Manager being hired and an Events Coordinator position being created to support the communications manager. An additional visual communications student worker to assist with website updates and marketing materials will be added in January 2022.

Marketing and Communications Manager—Leo Pardo (in hiring process)

Events Coordinator—Kalani Pickhart (transition in progress)

Prototyping Team

The Design School provides access to a variety of prototyping facilities, including a digital fabrication lab, a prototyping shop, and a centrally located print lab. Oversight of these facilities is also undergoing a restructuring, centralizing all digital and shop functions under the Shop Manager, with all printing management moving to Business Operations.

Shop Manager—Jesus Orozco

Shop Superintendent—John George

Shop Superintendent—Mark Fromeyer

2 Shop Work Studies (to be searched January 2022)

Facilities Coordinator (in hiring process)

Student Ambassadors

The Design School has increased the student presence by hiring a team of student ambassadors to represent each of the programs in The Design School. The students will greet visitors, give tours, share school activities on social media, and assist in front office operations as needed by the Business Operations team. The student ambassadors will also provide support to the Events Coordinator when needed for special events and the Program Heads as needed throughout the semester.

b. Progress in Addressing Not-Met Student Performance Criteria

B.1 Pre-Design

2018 Visiting Team Assessment: While the team requested additional information in addition to that supplied within the team room and in coursework designated on the SPC matrix within the APR, evidence of student achievement at the ability level could not be documented with respect to preparing a comprehensive program and space inventories and their requirements.

Arizona State University, 2021 Response:

SPC B.1 Pre-Design is no longer specifically required under the 2020 Conditions; therefore, we have replaced it with PC.2 Design within ADE 521. Once ADE 521 has been taught out, it will be replaced by the graduate studio sequence, which will demonstrate PC.2 in each of the graduate studios (ARC 501/502/601/602). Syllabi can be found in the appendix of this document.

Please note: the graduate studio sequence (ARC 501/502/601/602) will be taught as a series of vertical topic studios. Each studio will be assessed according to the same rubrics. 500 and 600 level students will be assessed at different levels of complexity.

B.3 Codes and Regulations

2018 Visiting Team Assessment: While the team requested additional information in addition to that supplied within the team room and in coursework designated on the SPC matrix within the APR, evidence of student achievement at an ability level was not found in student work with respect to the accessibility. Accessibility was an SPC that was previously not met in the 2012 visit. The team was able to find a select few examples of projects that utilized some accessible features. However, the low pass work in particular was not consistent in its offerings of accessible routes both inside and outside of the building, the provision of handrails/ guardrails, or the provision of basic accommodations at toilet rooms.

Arizona State University, 2021 Response:

SPC B.3 Codes and Regulations is no longer specifically required under the 2020 Conditions; therefore, we have replaced it with SC.5 Design Synthesis and SC.6 Building Integration in ADE 522 and ATE 566. Once ADE 522 and ATE 566 have been taught out, they will be replaced by the graduate studio sequence, which will demonstrate SC.5 and SC.6 in each of the graduate studios (ARC 501/502/601/602). Syllabi can be found in the appendix of this document.

B.10 Financial Considerations

2018 Visiting Team Assessment: While the team requested additional information in addition to that supplied within the team room and in coursework designated on the SPC matrix within the APR, evidence of student understanding of this SPC was not found. Basic construction schedules and project schedules were provided by firms to students of the ARP 584 Clinical Internship course; however, evidence of student comprehension or understanding of these materials could not be documented. Evidence of life cycle costing and financing was not found and did not appear to be addressed.

Arizona State University, 2021 Response:

SPC B.10 Financial Considerations is no longer specifically required under the 2020 Conditions; therefore, we have replaced it with SC.2 Professional Practice in ARP 584. Once ARP 584 been taught out, it will be replaced by ARC 662 Practice. Syllabi can be found in the appendix of this document.

II. 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).

Arizona State University, 2021 Response:

Faculty Planning

We have been approved for four searches this academic year. One of the searches is a joint hire with the Del E Webb School of Construction Management. We have one confirmed and two potential faculty retirements within the next five years. It is planned that each position will be backfilled with tenure-eligible full-time faculty and full-time instructors. As we continue to grow, it is expected that we will be able to hire additional full-time faculty. A proposal has been put forward to the dean to make a cohort hire to include a series joint-appointed faculty across the disciplines in the building environment across ASU.

Administration Changes

Mark Searle stepped down as Provost in summer 2021 and Nancy Gonzales was named as the new Provost. Jason Schupbach resigned as Director of the Design School in Spring of 2020. Philp Horton acted as the Interim Director in 2020-21. Paola Sanguinetti was hired as the Director in summer 2021. Marc Neveu was appointed as the Architecture Program Head in 2018.

Enrollment Growth

Enrollment in the Architecture program has increased as follows:

Undergraduate	2017-18	2018-19	2019-20	2020-21	2021-22
	334	372	441	536	678
Graduate	83	112	126	152	254

The pandemic has had an effect on planning but we have seen larger than expected growth year over year in both the undergraduate and graduate programs. This aligns with the mission of ASU.

Opportunities for Collaboration

The Architecture Program is collaborating across the Design School, the Herberger Institute of Design and the Arts, as with well our professional communities and alumni.

The redesigned **undergraduate degree** is intended to teach to students enrolled in the Architecture Program as well as students from across the Design School, HIDA, and ASU. We plan to leverage the use of the word "architecture" to mean more than the discipline itself. Students in the redesigned **graduate program** will have the opportunity to complete multiple credentials with programs in the Design School as well as in the School of Sustainable Engineering and the Built Environment and the WP Carey School of Business. In this way, they will complete and architecture plus, construction, sustainability, development, etc.

We plan to launch a new **Center of Building Innovation** (cobi) in 2022. Cobi will bring together all disciplinary units related to the building environment at ASU into one center, operating across all three enterprises. Cobi will facilitate the innovative development of dynamic, modular curricula that will help students from all backgrounds enter into our degree programs during any year of their studies. Cobi will be an engine for the creation of new knowledge by synthesizing the concepts of consortia models with the Practice Labs™ and Innovation Labs model Cobi will move to quickly leverage the models of stackable assets for lifelong learning by connecting with existing partners — academic, professional, and cultural — to address gaps and opportunities at every stage of life. Finally, cobi will model professional relationships across the building environment prior to graduation.

Within cobi, there will be a series of joint hires, multi-disciplinary studios, and community outreach. This spring, ADE 522 will model a cobi studio: Embassy 2050. The studio is part of a university-wide research project centered on risk in the design of embassy buildings. The research project includes the Bureau of Overseas Building Operations (OBO), Studio MA, and the following groups at ASU: Global Futures Laboratory (GFL), Urban Climate Research Center (UCRC), and the Architecture Program. We are partnering with the School of Sustainable Engineering and the Built Environment to launch an Architectural Technology Degree 2024. We are partnering with the WP Carey School of Business to launch an executive education program called *Building Leadership*, which will bring together and educate emerging leaders in the building industry. We are developing K-12 content and Continuing Education with the National Organization of Minority Architects (NOMA), the AZ American Institute of Architects (AIA), Marvel Studios, the Girl Scouts, and a host of local offices.

In Fall 2019 we launched the **Architecture Partners Program** (APP). The intention of the program is to build lines of communication between the academic and professional communities here in the Valley. As we explore innovative change, we look to the architecture community to guide the process. The APP also helps to support student and faculty initiatives, including scholarships, design build projects, and as way to plug tuition gaps for students who need it most.

The **Architecture Program Digital History** project will launch in 2022. The project is the result of two years of collecting information about the program since its inception in the mid 20th century. Constructed as a series of three timelines – Faculty, Alumni, and Milestones – the website will be a living history of our program. It is also a way for alumni to reconnect with the program.

Educational Approach

As described above, over the past three years, faculty, students, and staff have begun to redesign the Architecture Program to align with the mission of ASU. This presents a series of challenges and opportunities. Each architecture program in the United States and Canada is exclusive. We are redesigning our program to be *radically inclusive*. As a result of this redesign, we have had to rethink how we teach, how we use space, how we advise, how we conduct research, how we collaborate across the university, and how we partner with our communities.

Financial Resources

We have serious financial resource challenges. This is further complicated by our administrative structure within the Design School and HIDA. We are working within our limitations and, as described above, are working to diversify our revenue streams. Further, we are working to make the budget transparent to better understand how revenue and expenses flow through each of the sub-units.

III. Summary of Preparations for Adapting to 2020 NAAB Conditions

Please provide a brief description of actions taken or plans for adapting your curriculum/ classes to engage the 2020 Conditions.

Arizona State University, 2021 Response:

As we plan to launch the new curriculum, the 2020 NAAB Conditions, and more importantly, how we continue to evolve and assess the program and curriculum is an integral part of the redesign. Over the past three years, we have assessed the existing curriculum and redesigned a new curriculum that aligns with the mission of ASU. Each of the courses in the new curriculum will have NAAB shared values, Program Criteria, and Student Criteria. Mapping those is currently in progress. An assessment committee has been established and will be responsible to integrate the Program and Student criteria into our learning management software, Canvas. Each criterion will have a rubric in Canvas and every student project will be assessed by faculty and critics. All of the data from the rubrics will be collected and we will meet as a faculty each semester, to review the data to determine what changes need to be made to better prepare our students.

IV. 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)

Arizona State University, 2021 Update:

Faculty bios

Paola Sanguinetti

Paola Sanguinetti is the director of The Design School. She has two decades of teaching experience in architecture and computational design. She received a Bachelor of Architecture at the University of Kansas, a Master of Science in Advanced Architectural Design from Columbia University, and a PhD from the Georgia Institute of Technology, specializing in high performance buildings and design computation.

https://isearch.asu.edu/profile/3996597

Marc J Neveu

Marc J Neveu is the head of the Architecture Program in The Design School at Arizona State University. In that role, he is helping to imagine what it means to be an architecture program within the model of the New American University. Neveu's research explores the role of storytelling – both in pedagogy and practice. He is currently working on a digital archive of the work of the rhetorical architect, Douglas Darden. He is the past Executive Editor of the biannual peer-reviewed Journal of Architectural Education. https://design.asu.edu/content/marc-neveu

Felipe Mesa

Felipe Mesa is an Assistant Professor in The Design School (Architecture Program) at the Arizona State University. Before this appointment, Mesa was an Assistant professor in the architecture programs of some Universities in Colombia: Universidad Pontificia Bolivariana (UPB) in Medellin; Pontificia Universidad Javeriana (PUJ) in Bogota, Universidad de Los Andes in Bogota; and he was Ivan Smith Eminent Visiting Professor at the University of Florida School of Architecture (SoA) - 2014. During his last seven years as a professor in Medellin, Mesa developed a Design-Build Studio focused on designing and constructing wooden projects in partnership with municipal leaders from rural underserved areas. Under his leadership, ten small-format buildings were built that positively impacted the daily life of a broad educational community in Antioquia. This work was published in the book *Nubes de Madera (Clouds of Wood)* by Mesaestandar editors (2017). In association with Professor Catherine Spellman, Felipe is currently working on developing a new Design Build program for The Design School at Arizona State University.

https://design.asu.edu/content/juan-felipe-mesa-rico

Dongwoo (Jason) Yeom

Dongwoo (Jason) Yeom is a researcher and educator with a strong interest in human-building interaction, high-performance building, and sustainable building design. He has conducted multiple experimental research projects on sustainable design, building performance analysis, indoor environment quality (IEQ), and human-building interaction. At ASU, Dr. Yeom is conducting multidisciplinary research projects, investigating the relationship between the indoor environment, human physiological responses, and occupant's behavior and productivity, and also exploring the methodology to use human physiological signals as an indoor environment control factors

https://design.asu.edu/content/dongwoo-yeom

Zoe Cope

Cope's research involves speculative architectural design in the context of narrative, storytelling, representation, and architectural theory. Modes of working oscillate between writing & drawing, usually finding themselves somewhere between.

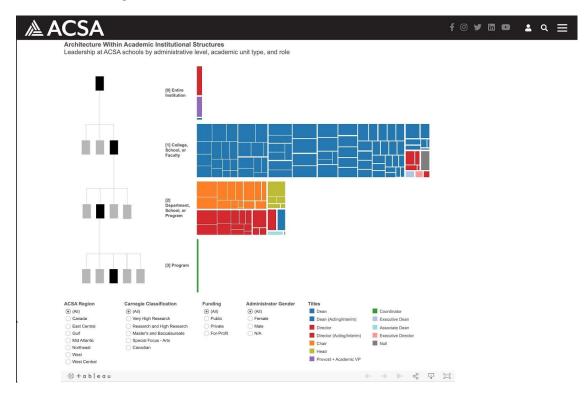
https://design.asu.edu/content/zoe-cope

Katherine Dudzik-Smith

Katherine practices holistic design that reflects a connection to environment, and an understanding of tectonics, and materials. She is inspired by the concept that Architecture is the connection between life and place, and is therefore not necessarily confined to a site; Architects can look to current cultural practice to identify projects. Aside from architecture and design, Katherine enjoys travelling, film, learning and teaching. Her educational experiences and her design collaborations have allowed her to travel throughout the United States, Central America and Europe. Her work has allowed her to interact with some of today's most notable and innovative professionals in her field.

https://design.asu.edu/content/katherine-dudzik-smith

Architecture Program Structure



The Architecture Program at ASU is the only program that does not sit at the Department-, College-, or Institutional level.

Source:

https://www.acsa-arch.org/resources/data-resources/architecture-within-academic-institutional-structures/

Syllabi

Syllabi for ADE 521, ADE 522, and ARP 584 follow. Syllabi have been shortened to accommodate for the 40 page limit.

Within the new curriculum, the graduate studio sequence (ARC 501/502/601/602) will be taught as a series of vertical studios. Each studio will be assessed according to the same rubrics but will have distinct topocs. 500 and 600 level students will be assessed at different levels of complexity.

Values and criteria have been mapped on to the new syllabi. Exercises to demonstrate the criteria have been met are in development, as are the rubrics to assess the criteria. All of the "fine print" is included in only the ARC 501 syllabus, which is representative of the propose new studio sequence. Other syllabi can be provided upon request.



ADE 521: Advanced Architectural Studio I.

Course and Faculty Information

Course Description: Design problems emphasizing theory, aesthetics, and tectonics as influences inarchitectural form.

Prerequisites: Master of Architecture student; Co-requisite: ATE 553 and ATE 563

Instructor: Phil Horton

Contact Information: horton2@asu.edu

Office Hours: It is the responsibility of the student to set up weekly meetings with their advisor and to seek out other critics/experts as needed. You can schedule a meeting using the following link: https://calendly.com/philip-horton/30-min-zoom-meeting.

Objectives

The objective of this course is to support the development of a discursive architectural project.

Course Learning Outcomes

At the completion of this course, students will be able to:

- 1. Develop an independent project to a legible level of completion,
- 2. Represent the project clearly through models and drawings, and
- 3. Develop an effective approach to presenting the project to their peers and professional community.

NAAB Criterion

PC.2 Design—How the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.

Specific Description

The Expansion Game

This studio will focus on architecture expansions as a "game" with a set of rules that allow detonating improvements and innovation. The goal is to learn from previous buildings (Avoiding tabula rasa) throughnew expansions and programs, giving them a second life with a sustainable and bioclimatic approach. Each professor will define a specific building typology (in our case: botanical gardens greenhouses from the second half of the 20th century), and all the students will receive a particular case study building. The course will have four modules: (I) research, (II) reconstruction, (III) expansion, and (IV) improvement.

During the first one, the students will make contextual approaches to the overall topic (history, urbanism,technologies, geometries, materials, programs, author's biography, etc.). In the second one, they will reconstruct all plans and relevant information on the existing buildings. During the third module, they willpropose a new expansion with a new program, and in the final phase, they will create architectural improvements to the previous constructions.

Assignments

Assignments through the course of the semester will be developed between the faculty and student andin conjunction with the intention of the project. It is expected that students will develop an independent project that will be represented by digital models, scale models, drawings, narrative text, and will be presented across the four reviews as stated below. Students may present digitally at the discretion of the faculty. As an iterative process, late work will not be accepted, but the grading may be reduced at the discretion of the faculty.

Attendance/Participation:

20 points

Assignment 1. Research.

Product: collage and analysis of history and context.

10

PointsObjective: describe contextual factors defining the main aspects of existing diplomatic building Review 01: September 08, 1:30 – 5:55

Assignment 2. Reconstruction

Product: 3D model, plans, sections, elevations, isometrics, components/systems 20 Points. Objective: produce 'an exact, yet rigorous' documents of the existing diplomatic building and site Review 02: September 29, 1:30 – 5:55

Assignment 3. Expansion

Product: Design a component-driven expansion/re-programing of the existing building. 20 Points Objective: Reinforce or change the components/system-based logics of the architecture. Model it.Review 03: October 20, 1:30 – 5:55

Assignment 4. Improvement

Product: Design Development and Architectural detail. 3D Wall section. 20 Points Objective: improve aspects of the building through new programmatic + technological opportunities. Review 04: Nov 08, 1:30 – 5:55

Exhibition.

Product: Book Chapter and Catalogue page.

10

PointsObjective: synthesize all the information produced during the semester

Exhibition: Friday 02 December

Grade Calculation

Attendance/Participation: 20 points
Assignment 1: 10 points
Assignment 2: 20 points
Assignment 3: 20 points
Assignment 4: 20 points
Final Review: 10 Points

TOTAL: 100 Points

ADE 522_ADVANCED ARCHITECTURAL STUDIO II

Spring 2021 | Mondays and Wednesdays | 1:30-5:55 | 5 credit hours



COURSE SYLLABUS

Faculty:

Thomas Hartman: Office DN 380, thomas.hartman@asu.edu

(coordinator)

Marlene Imirzian: Marlene.Imirzian@asu.edu
John Douglas: John.C.Douglas@asu.edu
Beau Dromiack: beau.dromiack@asu.edu

1-Catalog Description:

Design problems emphasizing the comprehensive integration of building systems and technologies as influences on architectural form.

2-Requisites:

Prerequisites: M-Arch student, Completion of ADE 521 with a grade of "C" or higher.Co-requisites: APH 505; ATE 556.

integrate (v.): to form, create, coordinate, or blend (two or more things) into a functioning or unified whole **comprehensive** (adj.): 1. covering completely or broadly; 2. having or exhibiting wide mental grasp

3-General Description:

"'Integrated design' is a term that characterizes what architects and architecture students do when they incorporate the energy, site, and climatic, formal, construction, programmatic, regulatory, economic, and social aspects of a project as primary parameters for design. The result is often better building design and building performance on account of a fundamental engagement with these multiple, often complex, contexts that condition contemporary architecture. In doing so, practitioners engender what could be more sustainable modes of practice. If architecture becomes more sustainable, it is because its practices and buildings will have fundamentally become more integrated." – Kiel Moe, Integrated Design in Contemporary Architecture

This studio will require each of you to apply both breadth and depth of knowledge to the design process. The breadth of knowledge should be reflected in the range of considerations embraced during the design process; history, theory, site analysis, program analysis and development, regulatory requirements, building technology options, and options that optimize the environmental impact of the building.

This will involve research, both in the form of assignments and via your own initiative as the need arises. Depth of knowledge should be reflected in the maturity, clarity and sophistication of ideas, how thoroughly options are explored, how consistently they are developed, and how successfully they are represented/communicated.

Integrative solutions seek to optimize "the whole". This is very different than optimizing "the parts" (structure, systems, program layout, etc.) independently, and assembling them to form a scheme. The sum total of a set of optimized **parts** is not necessarily an optimized **whole**. The most effective way to achieve an integrated solution – one that optimizes "the whole" – is to engage the design process in an **iterative** (as opposed to a linear) manner. Beginning with research into each of the many factors that are a part of the project (structure, services, skin, energy use, etc), the process will include exploratory modeling and evaluation of options, identifying and documenting a range of possible solutions foreach one. The iterative method will ultimately allow you to identify the *overall* project solution ("the whole") that most successfully **integrates** solutions for structure, program layout, systems, etc. The process continues with detailed development of the scheme, and finally the production of clear and effective documentation of your proposal.

ADE 522 will be focused on addressing criteria that are a part of the 2020 edition of the National Architectural Accrediting Board (NAAB) Conditions for Accreditation. In particular, ADE 522 and ATE 556 will address SC.4, SC.5, SC.6. Note that your work must provide evidence that indicates "understanding" of SC.4 and "ability" (a higher standard) for SC.5 and SC.6.

SC.4 Technical Knowledge—How the program ensures that students understand the established and emerging systems, technologies, and assemblies of building construction, and the methods and criteria architects use to assess those technologies against the design, economics, and performance objectives of projects.

SC.5 Design Synthesis—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions.

SC.6 Building Integration—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance.

4-Instructional Objectives:

The objectives of this graduate studio are:

- 1. To address the NAAB criteria (above),
- To develop a deep understanding of the importance of **integrating** site design, codes and regulations, structural
 systems, environmental systems, building envelope systems and assemblies, building materials and assemblies,
 building service systems, financial considerations, and construction processes,
- 3. To develop an understanding of the benefits of employing an *iterative* design process. It is our goal to help each of you to understandthe interplay between a building's functional / performative / financial / constructive feasibility and its aesthetic and cultural significance, and how to manage a design process that will lead to integration,
- 4. To develop the ability to explore and evaluate potential design solutions iteratively, at a range of scales and using a wide array of tools:research, case studies, sketches, photography, Building Information Modeling (BIM), energy performance modeling, technical documentation, physical modeling, detail mock-ups, and contact with professional and academic consultants.

5-Instructional Methodology

This design studio requires collaborative participation by all members of the studio in the observation, research, analysis, making, and criticism. Buildings (particularly complex buildings) require a variety of skill-sets, and rely on the thoughtful input of individuals whose skills are complementary. You are encouraged to understand your own strengths and limitations, and encourage you to make use of us (and of one another), fostering a studio experience that is not only effective, but inspiring.

Our recent experiences have allowed us to anticipate and address many of the challenges of the online studio format, but we are always open toideas, proposals and suggestions that serve to improve the studio experience. Do not hesitate to speak with us or email us with suggestions.

Feedback via digital "desk crits" and comments on your submitted work will be supplemented by lectures and presentations by your studiocritics and by visiting experts/consultants in various fields (structure, egress, systems, construction, etc).

Iterative thinking vs. linear thinking: We are absolutely convinced that the technical development and refinement of a building should*not* be a process that begins when the "design phase" is over, but rather should be considered an integral part of the design process from the beginning. This attitude is now explicitly reflected in the NAAB conditions for accreditation.

Comprehensive or integrative thinking requires you to *iteratively* consider context, concept, space, light together with structure, acoustics, mechanical systems, and other techniques. A **linear** design process is to be avoided. In a linear process, technical issues are examined and addressed one after the other, often after the scheme has been largely defined. When technical issues (both problematic or potentially wonderful) are discovered or addressed late in the process, the opportunity to efficiently (not to mention elegantly) **integrate** them becomes increasingly limited. In other words, the moment of "maximum insight" (when you know what to do) corresponds to the moment of "minimumopportunity" (no time or opportunity to do it). We want to reach the "moment of maximum insight" early in the process so that we have the "opportunity" (time) to do something about it! It is for this reason that we strongly encourage an iterative design process. Perhaps one of the most critical skills you will need to develop is your ability to *anticipate* the issues that will become major challenges, *address* them quickly and energetically, research alternatives and *integrate* them into each successive iteration of your design thinking and your project.

Coordination with ATE 556: The graduate curriculum is designed so that the two courses support each other. The two courses share a focuson tectonic culture, building technology and integration. ATE556 provides an opportunity to observe, understand, analyze and develop knowledge and skill in this area. The design studio will employ this knowledge, applying it in your studio projects, focusing on the synthesis of information throughout the design process.

Project Book (final assignment in studio) and Project Manual (final assignment in ATE 556): Demonstration of your ability to address the NAAB criteria will be found in (a) the final documentation of your project in studio (plans, sections, details, etc.) and/or (b) throughthe work you produce in ATE556.

The work describing your project solution may be referred to the PROJECT BOOK, and may be based on the digital presentation you will have configured for the pre-FINAL review in studio. The cumulative documentation of your project, or the PROJECT BOOK + "behind the scenes" research and investigations you will produce (including in ATE 556) may be referred to as the PROJECT MANUAL.

Be prepared to maintain careful and methodical record of your background research, investigations and process in studio, since much of this material will ultimately be incorporated into the Project Manual. It describes the *process* **and** the *solution*, including problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation. While the project manual will be submitted the final assignment in ATE 556, the material will come from both ATE 556 assignments and your work in ADE 522.

6-Calendar

Narrative description of the 2021 studio calendar:

The semester will be divided into four phases:

Phase 1: Preliminary exercises - analysis and documentation

The first phase (roughly 2 weeks) will be devoted to (a) project site analysis, (b) program analysis and (c) precedent studies. These activities arevery traditional ways to begin a project. But since we are very committed to giving each of you as much time as possible for the actual design project, we will work on the preliminary exercises in parallel, by different teams of students. The research will be shared with the entire class.

Phase 2: FIRST ITERATION schematic design

The first iteration of the project is an exploratory one, will take place from week 3 through week 8, and will end with a schematic design review. The overall idea behind the first 5-week iteration is for you to focus methodically on a number of issues (structure, building envelope, energy analysis, etc.) and explore a few options for each before committing to a definitive solution in any of them. Different aspects of the project will beemphasized or highlighted each week. Lectures, presentations and exercises in studio and in ATE556 will support your investigations. The schematic design phase will be an opportunity to understand the formal and technical challenges of the project while allowing your design ideasand priorities to emerge. You will be asked to propose 2-3 possible schematic designs for your project and to receive feedback.

Phase 3: SECOND ITERATION_design development

The second iteration will take place in weeks 9 through 13. It will be devoted to design development leading to a single integrated design solution, and will end with the pre-Final review at the beginning of week 14 where you will once again have an opportunity to present your project and receive feedback from invited critics.

Having explored a series of technical issues and possible solutions in the first iteration and having received feedback and suggestions at the SD review, you should begin this phase with a clear idea of your **ambitions** for the project and – most importantly – a clear idea of the most pressing technical **challenges** that will need to be addressed in order to achieve them. What issues need to be resolved and what decisions need to be made? What are the priority items? Energy modeling? A structural solution? Building envelope and shading? Programmatic layout? Siting of thebuilding?

Your project ambitions will be different from your colleagues, and thus the challenges will also be different for each of you. For this reason, after the review and before beginning work on design development, you will each be asked to submit a short document that outlines how you propose to productively organize the 5 weeks that are available for the second iteration.

Phase 4: FINAL ITERATION and FINAL PROJECT BOOK

The fourth and last iteration will take place in the last two weeks of the semester (weeks 14 and 15), and will provide you with time to put the finishing touches on your project and to assemble a clear and complete final documentation of your project. The final PROJECT BOOK, submittedin studio, focuses on the final scheme. It will ultimately be combined with additional information to form the PROJECT MANUAL from the ATE 556 class. Together they form a complete presentation of the finished project <u>and</u> the "behind the scenes" story of its development.

Grading breakdown:

Phase 1: PRELIMINARY EXERCISES (group work)
 Phase 2: FIRST ITERATION_schematic design
 25%

o Each of the weekly submittals will be evaluated and will form a portion of the grade for the phase.

Phase 3: SECOND ITERATION_design development 45%

o Each of the weekly submittals will be evaluated and will form a portion of the grade for the phase.

Phase 4: FINAL ITERATION_project book
 Attendance / participation
 5%

7- Required References:

<u>The Architect's Studio Companion: Rules of Thumb for Preliminary Design (the most recent edition)</u> by <u>Edward Allen</u> (Author), <u>Joseph Iano</u> (Author) (this text is an essential resource for both ADE 522 and ATE 556)

8- Recommended References:

- Integrated Design in Contemporary Architecture. Moe, Kiel. Princeton Architectural Press
- <u>Architectural Graphic Standards</u>. Ramsey/Sleeper. Wiley & Sons. The student edition is less complete, more affordable, but is still a useful option.
- Modern Construction Handbook. Watts, Andrew. Ambra
- www.aiatopten.org AIA COTE, The American Institute of Architects Committee on the Environment Top Ten Awards
- http://network.aia.org/technologyinarchitecturalpractice/home AIA TAP, Technology in Architectural Practice Awards
- additional references will certainly be critical for your project, based on the specific development of your individual work



ARP 584: Internship | Professional Practice

Course and Faculty Information

Course Description:

This course, for graduate students in the M.Arch Program, introduces and examines issues in contemporary architectural practice.

The course challenges students to fulfill the learning objectives and outcomes described within the National Architectural Accrediting Board's current Conditions for Accreditation (see details below):

SC.2 Professional Practice—How the program ensures that students understand professional ethics, the regulatory requirements, the fundamental business processes relevant to architecture practice in the United States, and the forces influencing change in these subjects.

Credits: 1-credit academic course + 2-credits of professional internship **Prerequisites:** Master of Architecture student; ADE 521 with a C or better

Instructor: Philip Horton

Contact Information: philip.horton@asu.edu

Office Hours: Thursdays from 4:00-5:00pm via https://asu.zoom.us/my/philhorton

Course Objectives.

'Our goal is not to teach our students toward Professional Licensure, but rather to teach our students toward Professional Leadership.' – Renée Cheng, Dean, University of Washington College of the Built Environment

Course Learning Outcomes.

At the completion of this course, students will be able to demonstrate an understanding of:

- 1. Professional ethics of architecture
- 2. Regulatory requirements of architecture
- 3. Fundamental business processes relevant to architecture practice in the United States
- 4. Forces influencing change in the profession of architecture

Readings.

Throughout the course of the semester, a number of readings will be assigned. All materials will be provided to you via Canvas. These are to be read in advance of class, so that we can use our class-time to have a critical discourse about each subject matter. Readings will include:

- The Architect's Handbook of Professional Practice, 15th Edition, 2014; R.L. Hayes, PhD, AIA, Editor-in-Chief; Wiley
- Architecture 3.0: The Disruptive Design Practice Handbook, 2014, Cliff Moser, Routledge
- The Reflective Practitioner: How Professionals Think in Action, 1983, Donald A. Schon, Basic Books
- Function Follows Strategy: Architects' Strategies from the Fifties to the Present, 2015, Eduard Sancho Pou. Edition Detail
- Spatial Agency: Other Ways of Doing Architecture, 2011; Nishat Awan, Tatjana Schneider, and Jeremy Till; Routledge
- <u>Provisional: Emerging Modes of Architectural Practice, USA</u>; 2009, Elite Kedan and Jon Dreyfous, Princeton Architectural Press

- <u>Future Practice: Conversations From the Edge of Architecture</u>, 2012, Rory Hyde, Routledge
- Architect + Entrepreneur, A Field Guide: Building, Branding, and Marketing Your Startup Design Business, 2015, Eric Reinholdt, CreateSpace Independent Publishing Platform
- Architecture: The Story of Practice, 1991, Dana Cuff, The MIT Press
- <u>Ethics for Architects: 50 Dilemmas of Professional Practice</u>, 2010, Thomas Fischer, Princeton Architectural Press
- Architecture Depends, 2009, Jeremy Till, The MIT Press
- <u>Leading Collaborative Architectural Practice</u>, 2017, Erin Carraher and Ryan E. Smith, Wiley
- Architecture and Labor, 2020, Peggy Deamer, Routledge
- <u>Defining Contemporary Professionalism: For Architects in Practice and Education</u>, 2019,
 Edited by Alan Jones and Rob Hyde, RIBA Publishing
 - "Visible and Invisible Diversities: Why Our Profession Needs to be Holistically Inclusive," Yemi Aladerun
 - o "Holding Onto Ethics: Professionalism at the Heart of Practice," Irena Bauman
 - "Three Pillars of Professionalism: Knowledge, Ethics and Professional Judgement," Flora Samuel
- ARCHITECT: The AIA Journal
 - October 2020, "Out in Architecture: Workplace norms are changing, but how inclusive is the profession for LGBTQI+ architects?", Stephen Hicks
 - November/December 2020, "Improving Racial Equity Through Greener Design: How a better built environment enhances health, economies, and access to essential services for all.", Stayton Bonner

Semester Project.

The only assignment for this 1-credit course is a collaborative Semester Project that is broken into three Phases – Practice Management, Project Management, and a final phase focused on a more Expansive View of Architectural Practice. A detailed Problem Statement for the Semester Project will be available within the Assignments section of Canvas.

Schedule

Week I Week II Week IV Week V	Course Introduction Lecture & Reading Discourse #1 Lecture & Reading Discourse #2 Lecture & Reading Discourse #3 Lecture & Reading Discourse #4	Project Assignment, 3 Phases
Week VI Week VII Week IX	Lecture & Reading Discourse #5 Lecture & Reading Discourse #6 Lecture & Reading Discourse #7 Lecture & Reading Discourse #8	Project Phase 1: Practice Management DUE
Week X Week XI Week XII Week XIV	Lecture & Reading Discourse #9 Lecture & Reading Discourse #10 Lecture & Reading Discourse #11 Lecture & Reading Discourse #12 Lecture & Reading Discourse #13	Project Phase 2: Project Management DUE
Week XV	Concluding Discourse	Combined Project, including Phase 3, DUE

SEMESTER TEAM PROJECT: PROBLEM STATEMENT

I. OBJECTIVES

The Semester Team Project for ARP 584 aims to do two things:

- [1] To structure critical engagements between students completing this course, and licensed professional architectural practitioners, around the many subjects and learning objectives of the course.
- [2] To provide a platform for students completing this course to demonstrate understanding and critical query of the manner in which the many subjects and learning objectives of this course are strategically managed, implemented, and secured by the works of these professionals.
- [3] To expand critical engagement with the subject of architectural practice

II. STRUCTURE

The Semester Team Project for ARP 584 is to be organized in the following ways:

- [1] Students will assemble into teams of three
- [2] Each Student Team will be responsible for the phased and comprehensive delivery of a document which summarizes your interviews and research, including any Zoom recorded videos, from your critical analysis of two professional practices with whom you reach an agreement to participate this semester
- [3] Each Student Team will research, interview, and document their understanding of one domestic architectural practice (based anywhere within the United States) AND one global architectural practice (based anywhere outside of the United States). Be thoughtful about how you might compare/contrast these two practices: size of practices, scale and types of projects, mission or focus of practice, etc.

III. SCHEDULE

The Semester Team Project for ARP 584 is to be reviewed in the following phases:

[Phase 1] Practice Management

- Timeline of the history of the firm
 - Founding of the firm, and firm history
 - o Present condition of the firm, and current issues
 - o Future of the firm?
- · Diagrams of the past and current size of the firm
 - o When was the firm at its smallest/largest?
 - $\circ\quad$ Has the firm ever been too large/too small?
 - o What is the ideal size of the firm?
- Diagrams of the firm's hierarchical structure and individual roles/responsibilities
 - o Is the firm clearly vertical/horizontal, centralized/decentralized, evolving?
 - What are the advantages/challenges of the organizational structure of the firm?
- Does the firm own or lease their space? How are space needs changing?
- · Mission of the firm
 - o How does the mission effect firm structure and operations?
 - o How is the mission marketed to clients and the community?
- Interviews with key Leaders and Staff members within the firm
 - o How does the firm function/operate?
 - Human Resources (HR)? Including hiring/talent recruitment?

- Finance/Business Operations? If the firm is a branch, are there cost centers/sharing?
- Marketing? Thought leadership? Future strategies?
- How does the long-term mission drive day-to-day operations?
- How does mentorship, talent-development, and advancement work in the firm?
- What does Ethics mean to the practice, and their key stakeholders? (AIA Code of Ethics)
 - General Obligations
 - Obligations to the Public
 - Obligations to the Client
 - Obligations to the Profession
 - Obligations to Colleagues
 - Obligations to the Environment

[Phase 2] Project Management

- Owner-Architect-Contractor relationships and Client types
 - e.g. Design-Bid-Build v. CMaR v. Integrated Project Delivery
 - o e.g. Private homeowner v. University/Higher-ed v. Real-estate Developer
 - Different staffing for different client-types or contract structures?
 - Ethical challenges/opportunities related to clients/contracts?
- Acquisition of the projects, and Contract types/structures
 - o e.g. RFQ/RFP and competitive short-list v. cold-call/email
 - Business plans—or lack thereof—in leveraging similar projects for future business?
- Project Schedule/Critical Path and associated challenges—or lack thereof
 - Contractor involved early/later; Design Assist contracts
- Driving priorities of projects, and relationship to contract and project management
 - o Risk v. Cost v. Schedule v. Quality
- Type of fee structure and fee schedule for the projects
 - Relationship of consultants with contract and fees?
 - Staged contract with payment at milestones?
 - Any relationships between performance and pay?
- Interviews with key Leaders and Staff on the projects
 - Quality of Client and Contractor relations within the projects
 - Potential ethical sensitivities within the framework of the projects
 - o Role of the projects in the financial management and planning of the firm
- Role of projects in the advancement of the firm, and key stakeholders within the firm
 - First project of a type, largest of a type, new client/contract within a type, etc...
 - First project for a new PM or PA in the firm, first for a new methodology or technology

[Phase 3] Expansive View of Professional Practice

- Strategic vision of firm within architectural practice: organizational, financial, operational
- Speculative ideas about future changes to architectural practice
 - Changes in firm sizes, structural organizations, interdisciplinarity, local/regional/national range, contractual relationships, scopes/specialties...
 - Roles of the Architect: community/social, ethical responsibilities, etc...
 - Continuing impacts of technology on architectural practice
 - Future impacts of a changing climate, and a changing society
- Opinions on the future of Architectural Licensure
 - o IDP, ARE, Integrated Path to Licensure
 - o Importance of Continuing Professional Education
 - Role of the Collaterals: NCARB, AIA...
- Student reactions to the professional opinions and desires above
 - o Speculation, Critique, personal opinions

IV. EVALUATION

The Semester Team Project for ARP 584 is to be evaluated as follows:

[1] Phasing

[Phase 1] Practice Management
 [Phase 2] Project Management
 [Phase 3] Expansive View of Practice
 100 points
 100 points

• [Comprehensive] Final Project 100 points

[2] Expectations

- Comprehensiveness and rigor, relative to the subjects and learning objectives of the course
- Professionalism, relative to office visits, interviews, and discourse with your collaborators
- Care, craft, and professional handling of ALL materials collected or produced from your research

This Project accounts for 80% of your overall grade in ARP 584. The other 20% belonging to attendance and participation in week-to-week engagement and discussion.

Self and Peer Evaluations will be collected after each Phase of this Project, and these Evaluations will have equal weight to the instructor's assessment.

Architecture @ Arizona State University

Architecture Studio III

Credits 6

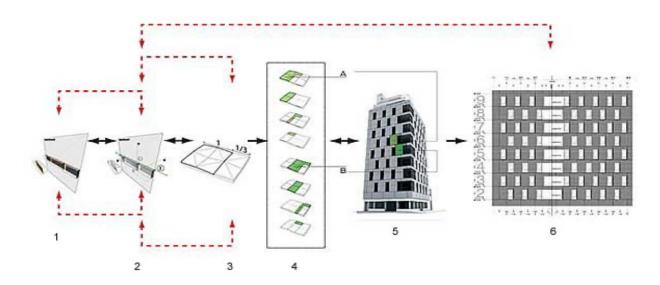
Instructor Darren Petrucci

Office Design South 314

Email darren.petrucci@asu.edu

Telephone 480-965-9588

Office Hours M/W 1:00-3:00



Description Project-based studio introducing an integrative design process.

Students will work individually and collectively on a semester-long design project. Students will be introduced to an integrative design process leading to a public exhibition of work.

Requirements Prerequisite(s): ARC 402 with C or better, Master of Architecture student

Objectives The objective of this course is to introduce an integrative design process.

Outcomes At the conclusion of this course, students will:

- Be able to draw and model an architectural proposal;
- Be able to investigate multiple design issues through an integrative design process; and
- Be able to make and defend, through drawing and models, the result of an integrative architectural proposal.

Shared Values

Design: Architects design better, safer, more equitable, resilient, and sustainable built environments. Design thinking and integrated design solutions are hallmarks of architecture education, the discipline, and the profession.

Environmental Stewardship and Professional Responsibility: Architects are responsible for the impact of their work on the natural world and on public health, safety, and welfare. As professionals and designers of the built environment, we embrace these responsibilities and act ethically to accomplish them.

Equity, Diversity, and Inclusion: Architects commit to equity and inclusion in the environments we design, the policies we adopt, the words we speak, the actions we take, and the respectful learning, teaching, and working environments we create. Architects seek fairness, diversity, and social justice in the profession and in society and support a range of pathways for students seeking access to an architecture education.

Knowledge and Innovation: Architects create and disseminate knowledge focused on design and the built environment in response to ever-changing conditions. New knowledge advances architecture as a cultural force, drives innovation, and prompts the continuous improvement of the discipline.

Leadership, Collaboration, and Community Engagement: Architects practice design as a collaborative, inclusive, creative, and empathetic enterprise with other disciplines, the communities we serve, and the clients for whom we work.

Lifelong Learning: Architects value educational breadth and depth, including a thorough understanding of the discipline's body of knowledge, histories and theories, and architecture's role in cultural, social, environmental, economic, and built contexts. The practice of architecture demands lifelong learning, which is a shared responsibility between academic and practice settings.

Program Criteria

PC.2 Design—How the program instills in students the role of the design process in shaping the built environment and conveys the methods by which design processes integrate multiple factors, in different settings and scales of development, from buildings to cities.

PC.8 Social Equity and Inclusion—How the program furthers and deepens students' understanding of diverse cultural and social contexts and helps them translate that understanding into built environments that equitably support and include people of different backgrounds, resources, and abilities.

Student Criteria

SC.5 Design Synthesis—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating synthesis of user requirements, regulatory requirements, site conditions, and accessible design, and consideration of the measurable environmental impacts of their design decisions.

SC.6 Building Integration—How the program ensures that students develop the ability to make design decisions within architectural projects while demonstrating integration of building envelope systems and assemblies, structural systems, environmental control systems, life safety systems, and the measurable outcomes of building performance.

Assignments

Assignments will begin with program and site analysis as the generator for architectural massing, followed by discrete analyses of potential solutions to: tectonic systems, building envelope, and systems for energy and human comfort. Solutions to these systems will be evaluated for their distinct effectiveness as well as their impact on the overall architectural design during systems integration. Demonstration of successful design integration will include representation through scale models, drawings, narrative text, and through presentation and review.

Milestone 01	Define / Iterate
Milestone 02	Innovate / Test
Milestone 03	Prototype
Milestone 04	Final presentation

Grade Calculation

Milestone 01	20%
Milestone 02	20%
Milestone 03	20%
Milestone 04	40%

98-100	A+	80-82	B-
93-97	Α	78-79	C+
90-92	A-	70-77	С
88-89	B+	60-69	D
83-87	В	0-59	E

Late work is accepted due to documented medical conditions. All other late work is accepted with a 20% reduction no later than one calendar week.

A rubric based on the learning outcomes will be provided.

The Y (Satisfactory) grade is an option for all classes and does not impact DARS requirements, although it is not included in GPA.

All grades will be rounded to the nearest whole number. Grades that are on the border of a letter grade will be rounded up to the next letter grade. Grades will only be raised by 0.5%.

Primary Materials

Model making materials: foam core, glue, utility knife, metal ruler.

Software: Rhino and Revit (student license provided)

Computer (provided in laboratory)

Any books required will be available in the library.

Secondary Materials

Canvas will be used to distribute course materials. Email will be used to communicate course information to students. It is the responsibility of the student to read and respond to all email sent by faculty.

Itinerary

Week 01: Introduction to Milestone 01

Week 02: What is the nature of the project?

Week 03: How many versions of the project exists?

Week 04: Milestone 01 Presentation / Introduction to Milestone 02

Week 05: What is the best project?

Week 06: How do you know what the best project is?

Week 07: Milestone 02 Presentation / Introduction to Milestone 03

Week 08: How is the best project made?

Week 09: How else can it be made?

Week 10: Milestone 03 Presentation / Introduction to Milestone 04

Week 11: What was the process?

Week 12: What is the best way to present the process?

Week 13: Milestone 04 Presentation

Week 14: Preparation of Exhibition

Week 15: Exhibition

Architecture @ Arizona State University

Architecture Practice

ARC 662

Credits 6

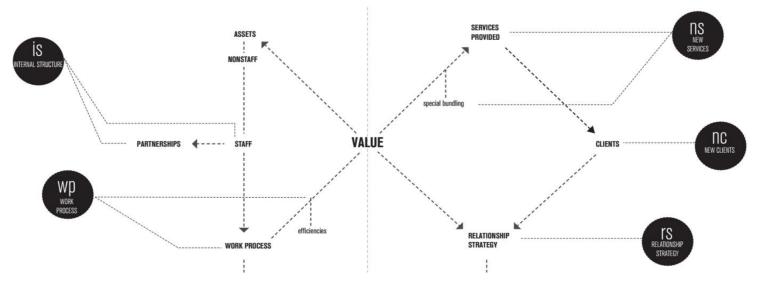
Instructor Darren Petrucci

Office Design South 314

Email darren.petrucci@asu.edu

Telephone 480-965-9588

Office Hours M/W 1:00-3:00



Description

Critical examination of organizational modes and missions of contemporary architectural practice, including the business of architecture, stakeholders, ethics, and legal and professional responsibilities.

Requirements

Prerequisite(s): Master of Architecture student

Objectives

The objective of this course is to develop and support understanding of business principles for the practice of architecture, including management, advocacy, and the need to act legally, ethically, and critically for the good of the client, society, and the public.

Outcomes

At the conclusion of this course, students will:

- Be able to comprehend the business of architecture and construction;
- Be able to compare and contrast the valuable roles and key players in related disciplines; and
- Be able to summarize a professional code of ethics, as well as legal and professional responsibilities.

Shared Values

Design: Architects design better, safer, more equitable, resilient, and sustainable built environments. Design thinking and integrated design solutions are hallmarks of architecture education, the discipline, and the profession.

Environmental Stewardship and Professional Responsibility: Architects are responsible for the impact of their work on the natural world and on public health, safety, and welfare. As professionals and designers of the built environment, we embrace these responsibilities and act ethically to accomplish them.

Equity, Diversity, and Inclusion: Architects commit to equity and inclusion in the environments we design, the policies we adopt, the words we speak, the actions we take, and the respectful learning, teaching, and working environments we create. Architects seek fairness, diversity, and social justice in the profession and in society and support a range of pathways for students seeking access to an architecture education.

Knowledge and Innovation: Architects create and disseminate knowledge focused on design and the built environment in response to ever-changing conditions. New knowledge advances architecture as a cultural force, drives innovation, and prompts the continuous improvement of the discipline.

Leadership, Collaboration, and Community Engagement: Architects practice design as a collaborative, inclusive, creative, and empathetic enterprise with other disciplines, the communities we serve, and the clients for whom we work.

Lifelong Learning: Architects value educational breadth and depth, including a thorough understanding of the discipline's body of knowledge, histories and theories, and architecture's role in cultural, social, environmental, economic, and built contexts. The practice of architecture demands lifelong learning, which is a shared responsibility between academic and practice settings.

Program Criteria

PC.1 Career Paths—How the program ensures that students understand the paths to becoming licensed as an architect in the United States and the range of available career opportunities that utilize the discipline's skills and knowledge.

PC.8 Social Equity and Inclusion—How the program furthers and deepens students' understanding of diverse cultural and social contexts and helps them translate that understanding into built environments that equitably support and include people of different backgrounds, resources, and abilities.

Student Criteria

SC.2 Professional Practice—How the program ensures that students understand professional ethics, the regulatory requirements, the fundamental business processes relevant to architecture practice in the United States, and the forces influencing change in these subjects.

SC.3 Regulatory Context—How the program ensures that students understand the fundamental principles of life safety, land use, and current laws and regulations that apply to buildings and sites in the United States, and the evaluative process architects use to comply with those laws and regulations as part of a project.

Assignments

Students will analyze an established professional architecture practice throughout the course of the semester to see how business and management principles of architecture are applied in practice. This analysis will occur in three phases: practice management, project management, and the future of architectural practice. Professional interviews and documentation will be the primary method used in completion of this assignment.

Throughout the course of the semester, students will be responsible for organizing, scheduling, and conducting a sequence of professional interviews – either in-person or through the use of web conferencing. Each team of students will be responsible for preparing and following-up appropriately.

Grade Calculation

 Quizzes:
 25%

 Phase 01:
 20%

 Phase 02:
 20%

 Phase 03:
 20%

 Documentation:
 15%

98-100	A+	80-82	B-
93-97	Α	78-79	C+
90-92	A-	70-77	С
88-89	B+	60-69	D
83-87	В	0-59	E

Late work is accepted due to documented medical conditions. All other late work is accepted with a 20% reduction no later than one calendar week.

A rubric based on the learning outcomes will be provided.

The Y (Satisfactory) grade is an option for all classes and does not impact DARS requirements, although it is not included in GPA.

All grades will be rounded to the nearest whole number. Grades that are on the border of a letter grade will be rounded up to the next letter grade. Grades will only be raised by 0.5%.

Primary Materials

Architect's Handbook of Professional Practice. American Institute of Architects

All books required will be available in the library.

Secondary Materials

Canvas will be used to distribute course materials. Email will be used to communicate course information to students. It is the responsibility of the student to read and respond to all email sent by faculty.

Itinerary

Week 01: Introduction

Week 02: Presentation / Quiz

Week 03: Presentation / Quiz

Week 04: Presentation / Quiz

Week 05: Presentation / Quiz

Week 06: Phase 01 Due

Week 07: Presentation / Quiz

Week 08: Presentation / Quiz

Week 09: Presentation / Quiz

Week 10: Phase 02 Due

Week 11: Presentation / Quiz

Week 12: Presentation / Quiz

Week 13: Phase 03 Due

Week 14: Presentation / Quiz

Week 15: Documentation Due

University Policies and Procedures Attendance Policy

Attendance and participation for the duration of the class period is mandatory. If you have more than 3 absences (unexcused), your final grade will be lowered 1/3 grade for each subsequent absence (i.e. B to B). You should notify me by email prior to absence if possible and provide doctor's note where applicable. Repeated tardiness and leaving class early will be recorded, and as a result, your final grade will be lowered. It is the student's responsibility to keep track of his/her absences.

Excused absences related to religious observances/practices in accord with ACD 304–04, "Accommodation for Religious Practices." Students may be excused for the observance of religious holidays. Students should notify the instructor at the beginning of the semester about the need to be absent from class due to religious observances. Students will be responsible for materials covered during their absence and should consult with the instructor to arrange reasonable accommodation for missed exams or other required assignments.

Excused absences related to university sanctioned activities in accord with ACD 304–02, "Missed Classes Due to University-Sanctioned Activities." Students required to miss classes due to university sanctioned activities will not be counted absent. However, absence from class or examinations due to university-sanctioned activities does not relieve students from responsibility for any part of the course work required during the period of the absence. Students should inform the instructor early in the semester of upcoming scheduled absences and immediately upon learning of unscheduled required class absences. Reasonable accommodation to make up missed exams or other required assignments will be made. Consult the instructor before the absence to arrange for this accommodation.

Accommodating Active Duty Military Students

A student who is a member of the National Guard, Reserve, or other U.S. Armed Forces branch who misses classes, assignments or examinations due to line-of-duty responsibilities, shall have the opportunity to make up the coursework in accordance with SSM 20-18 Accommodating Active Duty Military Personnel. This accommodation also applies to spouses who are the guardian of minor children during line-of -duty activities. This policy does not excuse students from course responsibilities during their absence. Students should first notify the Pat Tillman Veterans Center of their activation and then the instructor to discuss options.

Instructor Absence Policy

Students should wait for an absent instructor 15 minutes in class sessions of 90 minutes or less, and 30 minutes for those lasting more than 90 minutes, unless directed otherwise by someone from the academic unit.

Academic Integrity and Student Honor Code

The ASU student honor code affirms the commitment of ASU to uphold the values, principles, and ethics of academic integrity. All students are expected follow the code which states:

"We, the students of Arizona State University, have adopted this code as an affirmation of our commitment to academic integrity and our participation in ethical education. We embrace the duty to uphold ASU's Honor Code, and in light of that duty, we promise to refrain from academic dishonesty. We pledge to act with integrity and honesty to promote these values among our peers. We agree to always abide by the Sun Devil Way and uphold the values of the New American University."

Every student is expected to produce his/her original, independent work. Any student whose work indicates a violation of the ASU Academic Integrity Policy including cheating, plagiarism; and dishonesty will be subject to disciplinary action. Plagiarism is defined as deliberately passing off someone else's words or ideas as your own. All necessary and appropriate sanctions will be issued to all parties involved with plagiarizing any and all course work. Plagiarism and any other form of academic dishonesty that is in violation with the Student Code of Conduct will not be tolerated. Arizona State University and the Herberger Institute for Design and the Arts expect the highest standards of academic integrity from all students. Failure to meet these standards may result in suspension or expulsion from the university or other sanctions as specified in the ASU Student Academic Integrity Policy. "[e]ach student must act with honesty and integrity, and must respect the rights of others in carrying out all academic assignments."

This policy also defines academic dishonesty and sets a process for faculty members and colleges to sanction dishonesty. Violations of this policy fall into five broad areas that include but are not limited to:

- Cheating on an academic evaluation or assignments
- Plagiarizing
- Academic deceit, such as fabricating data or information
- Aiding Academic Integrity Policy violations and inappropriately collaborating

Falsifying academic records

I sanction any incidents of academic dishonesty in my courses using University and HIDA guidelines. Should you have any question about whether or not something falls subject to this clause, feel free to contact me or review the university policy on academic integrity at the above link. Per ASU policy, a student may not avoid the consequences of academic dishonesty by withdrawing from a course, and may be placed back in the course in order to face sanctions resulting from academic integrity violations. You are responsible for abiding by this policy.

Copyright

Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement. A statement that the course content, including lectures and other handouts, is copyrighted material. Students may not share outside the class, upload, sell, or distribute course content or notes taken during the conduct of the course (see ACD 304–06, "Commercial Note Taking Services" for more information). This content is protected and may not be shared, uploaded, sold, or distributed.

Student Conduct

ASU adheres to a university-wide Student Code of Conduct. The philosophy behind this policy states: The aim of education is the intellectual, personal, social, and ethical development of the individual. The educational process is ideally conducted in an environment that encourages reasoned discourse, intellectual honesty, openness to constructive change and respect for the rights of all individuals. Selfdiscipline and a respect for the rights of others in the university community are necessary for the fulfillment of such goals. The Student Code of Conduct is designed to promote this environment at each of the state universities. You are expected to treat your instructor and your fellow classmates with respect and kindness. In all correspondence and in Discussion Board postings, you should show respect for the viewpoints of others who may disagree with you or see things from a different perspective. Criticizing, ridiculing, insulting, or belittling others will not be accepted. Keep in mind that electronic communications do not have the advantage of nonverbal cues that are so much a part of interpersonal communication. Humor or satire can sometimes be misinterpreted in strictly electronic communication forums.

Threatening or Disruptive Behavior

Self-discipline and a respect for the rights of others in the classroom or studio and university community are necessary for a conducive learning and teaching environment. Threatening or violent behavior will result in the administrative withdrawal of the student from the class. Disruptive behavior may result in the removal of the student from the class. Threatening, violent, or disruptive behavior will not be tolerated in this class, and will be handled in accordance with ASU policy (SSM 104-02). Please visit here and here.

Classroom Behavior

Design studios in DN and DS are equipped with the Isaac Key Card system and can be access by using your ASU Sun Card. Only those students who are assigned to the specific studio will be given access each semester. Do not give studio access to unauthorized students at any time. Certain items may not be in the studios by order of the Fire Marshall or by other university restrictions. Bicycles, unicycles, mopeds, motor bikes, skateboards and other similar forms of transportation are not permitted. Any of these items found in a building will be impounded and violators will be fined. Other prohibited items include (but are not limited to) hot plates, toasters, toaster ovens and other high heat electrical appliances intended for the preparation of foods.

Studio Policy

On August 1, 2003 a studio policy was developed to provide essential health, safety and welfare parameters for all students in studio. The Design School Studio Policy specifically addresses physical aspects of the studio. All studio occupants must comply.

Studio Work Areas

Any sound system (CD player, radio, TV or computer) must be used with headphones unless it is an integral part of the scheduled coursework. Anyone wishing to concentrate should not have to ask for quiet from users of sound systems. Power tools (i.e. saws, sanders) and spray paint, concrete, plaster or other airborne toxic chemicals must be used only in the Design School Prototype/Model Laboratory or in the spray booths. Please operate the fan when using spray booths. Work requiring cutting, gluing, painting, or pouring liquids shall not be done on hallway floors or walls, inside academic classrooms, or in any building common spaces. Cutting and gluing is allowed at the work tables provided in the Tall Hall space for lower-level students. Animals are not permitted in the building except for seeing-eye, hearing-ear dogs, or animals meeting other

handicapped needs. Doors to the studio and access to fire extinguishers must remain unencumbered and easily accessible. Generally speaking, anything else that does not impinge on the rights of others is acceptable.

Cleaning Studio When Vacating

While studio space and its contents are meant to support educational needs, it is necessary to leave the studio in good condition as a form of professional respect for other studio classes that will follow. When a studio is vacated at the end of class, it is mandatory that the studio space, its furnishings, fixtures and equipment be returned to the Design School in as close to its original condition as possible. Studio desks and chairs are a specific part of this agreement. Please do not disassemble the studio desks/chairs nor move desks/chairs from room to room. In first- and second-year studios, students are expected to clean their work area prior to leaving at the end of each class meeting. Occupants are responsible for cleaning off desks and tables and discarding trash in the bins provided by the stated deadlines. The Design School participates in a University-wide recycling program. Your support and participation in environmentally-sensitive efforts of the School are appreciated.

Technology Usage

It is encouraged that you bring technology (cell phones, tablets and laptops) to class to help you take notes and do research, however please turn off cell phone ringers and do not use your phone to make personal calls in class or use any technology to use social media in class. Do not answer your phone in class. If you believe you are receiving an emergency call, please step outside to take it. Computer, Internet, and Electronic Communications Policy can be found here.

Withdrawal

If you are unable to complete the course, it is your responsibility to arrange for withdrawal from the class. You will not be automatically withdrawn and unless you are officially withdrawn from the course you will receive a final grade based upon the total points you have earned for the semester. Students are required to pay all tuition and fees for any registered course unless enrollment is officially cancelled during the 100% refund period. Please visit the Academic Calendar to review the withdrawal deadlines for this semester. For more information on Drop/Add and Withdrawal visit here.

Disability Support Services:

Students with disabilities must have an equally effective and equivalent educational opportunity as those students without disabilities. Students experiencing difficulty accessing course materials because of a disability are expected to contact the course instructor so that all students are provided equal access to course materials and technology. Qualified students with disabilities who will require disability accommodations in this class are encouraged to make their requests to me at the beginning of the semester either during office hours or by appointment. It may be difficult to make accommodations retroactively. Note: Prior to receiving disability accommodations, verification of eligibility from the Disability Resource Center (DRC) is required. Disability information is confidential.

Student Services and Resources

You will find a list of student resources here.

Resources included are advisement, registration, financial aid, disability services, counseling, tutoring, library, and more.

Special Accommodations

Your instructor is willing to make any reasonable adaptations for limitations due to any disability documented with the DRC, including learning disabilities. Please contact the instructor during office hours or by appointment to discuss any special needs you may have. You must contact the Disability Resource Center to process the paperwork for special course accommodations. To request academic accommodations due to a disability, please contact the ASU <u>Disability Resource Center</u> (Phone: (480) 965-1234; TDD: (480) 965-9000). This is a very important

step as accommodations may be difficult to make retroactively. If you have a letter from their office indicating that you have a disability which requires academic accommodations, in order to assure that you receive your accommodations in a timely manner, please present this documentation to me as soon as possible so that your needs can be addressed effectively.

Information for Students with Disabilities:

Students who feel they will need disability accommodations in this class but have not registered with the Disability Resource Center (DRC) should contact DRC immediately. Students should contact the Disability Resource Center on the campus that your class is being held. Campusspecific location and contact information can be found on the DRC website. DRC offices are open 8 a.m. to 5 p.m. Monday – Friday. Check the DRC website for eligibility and documentation policies, here.

Policy on Sexual Discrimination

Policy on sexual discrimination as described in ACD 401, "Prohibition Against Discrimination, Harassment, and Retaliation", including the fact that the instructor is a mandated reporter and therefore obligated to report any information regarding alleged acts of sexual discrimination. Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information. As an employee of ASU, I am a mandated reporter and obligated to report instances of reported or suspected incidences of sexual harassment.

Title IX

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources, here. As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence ASU Counseling Services is available if you want to discuss any concerns confidentially and privately.

Student Rights and Responsibilities

Students must abide by all the requirements stated in this syllabus. In addition, all students should be aware of their Rights and Responsibilities at Arizona State University and abide by the ASU Student Honor Code.

Non-emergency Student of Concern Process

If you are concerned for a fellow student's well-being, please review the information and complete this <u>form</u>. For emergencies, call 911.

Academic Calendar and Important Dates

The academic calendar can be found here

Subject to Change:

The Instructor reserves the right to change portions of this syllabus (assignments, deadlines etc.) by verbal instructions during scheduled class time. The student is responsible for noting changes and acting accordingly. Grading and absence policies are not subject to change.

Course Map for Architecture plus Interior Architecture dual degree

M.Arch 2 Year + MIA 2 Year				Courses Taken			
Term 1	Integra	Program		Fall			
Name of Course	Hours			Name of Course	Hours	Required/Elective	Grade
ARC 501 Studio 3	6	MArch					
ARC 541 Representation 2	3	MArch					
ARC 531 History 2	3	MArch					
DSC 598 Principles of Collaboration in Design	3	MIA					
	15				0		
					Ť		
Term 2		Program	_	Spring			
Name of Course	Hours			Name of Course			Grade
ARC 502 Studio 4	6	MArch					
ARC 522 Technology 3	3	MArch					
ARC 532 Theory 1	3	MArch					
ATE 598 Green Building Practices	3	MIA					
-	15				0		
Term 3		Program		Fall			
Name of Course	Hours	Program	_	Name of Course			Grade
		1414		Name of Course	1		Grade
INT 521 Advanced Interior Architecture Studio I	5	MIA					+
INT 519 Designing with Materials	3	MIA					
INT 527 Contemporary Design Theory	3	MIA					
INT 598 Research Methods in Interior Architecture	_	MIA					
INT 558 Lighting Design	3	MIA					
	17				0		
Term 4		Program		Spring			
Name of Course	Hours			Name of Course			Grade
INT 522 Advanced Interior Architecture Studio II	5	MIA					
INT 541 Codes and Building Regulation	3	MIA					
INT 544 Construction Documents	1	MIA					
INT 598 Diversity and Design	3	MIA					
-	12				0		
		Program		Summer			
Name of Course	Hours			Name of Course			Grade
INT 584 Internship	3	MIA					
	3				0		
		_			_		
Term 5		Program	_	Fall			0
Name of Course	Hours			Name of Course			Grade
ARC 601 Studio 5 OR	6			d/MIA Required	1		+
INT 621 Studio III	5			d/MIA Required			
ARC 621 Technology 4	3		uire	d/MIA Elective			
ARC 651 Research	3	MArch					
INT 529 Design Criticism	3	MIA					
total credits if INT studio: 14	15				0		
							1
Term 6		Program		Spring			
Name of Course	Hours	riogram		Spring Name of Course			Grade
	_	MArch		Marine or Course	1	+	Grade
ARC 602 Studio 6	6	MArch			-		+
INT 622 Advanced Interior Architecture Studio III		MIA					
ARC 632 Theory 2	3	MArch					
ARC 662 Practice or INT 520 Professional Practic		MArch Req	uire	d/MIA Required			1
	17	ı I			0	1	1
			_				

Course Map for Architecture plus Construction Management dual degree

Master of Architecture 2 Year / MS Construction	n Management and Te	echnology
T	late and the	B
Term 1	Integration	Program
Name of Course	Hours	NAI
ARC 501 Studio	6	MArch
ARC 541 Representation	3	MArch
ARC 531 History	3	CON Elective/MArch Required
CON Required Core (Project Management)	3	CON
	15	
Term 2	Integration	
Name of Course	Hours	
ARC 502 Studio	6	MArch
ARC 522 Technology	3	MArch
ARC 532 Theory	3	CON Elective/MArch Required
CON Elective	3	CON
	15	
Term 3	Innovation	
Name of Course	Hours	
ARC 601 Studio	6	MArch
ARC 631 Theory	3	MArch
ARC 651 Research	3	CON Elective/MArch Required
CON Required Core (Construction Technology)	3	CON
CON Required Core (Construction Technology)	15	CON
	15	
Term 4	Innovation	
Name of Course	Hours	
ARC 602 Studio	6	MArch
ARC 621 Technology	3	CON Elective/MArch Required
ARC 662 Practice	3	CON Elective/MArch Required
CON 593 Applied Project OR CON 599 Thesis	3	CON *if applied project, add one elective
CON 593 Applied Project OR CON 599 Thesis	6	CON *if applied project, add one elective
	21	
Total Required MArch	48	
Total Elective	N/A	
Total Credits MArch	48	
Total Required CON	12	
Total Elective CON	18	
TOTAL Credits CON	30	
TOTAL CIEDIES CON	30	