

# **Interim Progress Report**

## **Massachusetts College of Art and Design**

### **Master of Architecture**

**Track I** (102 credit hours = 42 pre-requisite credit hours plus 60 graduate credit hours)

**Track II** (120 undergraduate credit hours plus 60 graduate credit hours)

*Year of the previous visit: 2016*

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**617-879-7677**

**Current term of accreditation:**

Eight Years

Next visit in 2024

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

*From 2014 Conditions for Accreditation:*

**B.2 Site Design:** *Ability to respond to site characteristics, including urban context and developmental patterning, historical fabric, soil, topography, ecology, climate, and building orientation, in the development of a project design.*

## B.2 Site Design

**2016 Team Assessment:** The team found that the majority of the studio site selections were urban based, with minimal topographic response. Furthermore, an ability to respond to historical fabric, developmental patterning, and urban context site characteristics was not evident.

## Massachusetts College of Art and Design, 2018 Response:

MassArt has two entry points into the M.Arch program:

**Track I (42+60 credits)** is designed for students with an undergraduate degree in a field outside architecture. This track commences with a 42-credit pre-professional curriculum in three semesters preceding the 60-credit professional curriculum.

**Track II (60 credits)** is a professional degree for students with an undergraduate degree in architecture.

## INTRODUCTION

Since the last visit from the National Architecture Accrediting Board in Spring of 2016, the department commenced a review of site design within the curriculum with the goal of broadening site types and site analysis topics in order to expand upon and take advantage of the learning potential of site design issues. This work started in the context of discussions across campus on diversity and inclusion. Indeed, on the day our visit ended in March of 2016, we went directly to an all-school student symposium where students had developed a set of demands on how to address diversity in the curriculum. Based upon those events and the NAAB comments on Site Design, the faculty continued departmental discussions with students and faculty across the campus to develop themes in courses that might better address social and racial issues. We concluded that we would consider selecting sites and complementary programs that would engage students in research for studio projects that directly address issues relevant to society today. To support the developmental understanding of context, we selected sites and programs for studio projects that address the impact of social, political, economic and racial issues relevant to site criteria and increased project/site complexity in later studios in the sequence.

Since that time, we have augmented studio topics with a much wider range of sites that are in dense urban areas, suburban neighborhoods and in areas dominated by natural landscapes. These now provide a broader set of contexts in the professional program.

At the beginning of this fall we also engaged in a faculty retreat where each faculty member presented several slides from their courses that described their personal teaching philosophy. Faculty focused on course content and discussed new ways in which courses could link, sequence and add to the existing body of curricula comprising our professional education program. We have continued to use this information to work with each other, and at this academic year end, plan to discuss results from the initial changes.

In conclusion, it is our goal to provide increasingly diverse studios that include student data collection, investigation and analysis that address the historic and current formal, physical, social, racial, and political complexity of cities and neighborhoods and large green spaces across the entire program including the

undergraduate studios. This is ongoing. Studios in all levels include sustainability, and climate resiliency in increasing complexity. The examples below illustrate our progress to date.

## PRE-PROFESSIONAL PROGRAM (VERTICAL STUDIOS)

Note that in the first 42 credits (Track 1 first year) the studios are vertical, with mixed undergraduate and graduate enrollment, therefore two course numbers are referred to below. Importantly and of note, the changes made to the graduate pre-professional curriculum are also changes that apply to the undergraduate program.

### *EDAD 223/510 ARCHITECTURAL DESIGN I*

*Summer 2016, 2017, 2018*

This summer studio is the entry level studio for the Track I students who most likely have not had significant, if any studio experience. The summer studio has a shortened and intensive learning program over 6-½ weeks that supports addressing key site design mechanics. Unchanged during this time, the Jamaica Plain site exists within an urban park on a pond that is used year round by the adjacent community. The site was selected specifically to provide a project location with a simple program to introduce students to the formal qualities of site design, solar orientation that while addressing the users - local youth after-school programs from the surrounding neighborhoods - provides opportunity for students to design in a pastoral setting. This studio focuses on the development of skills in what is typically a first building for students new to architecture.

#### *Physical Context, Accessibility, and Solar Orientation*

The studio is an introduction to architecture providing opportunity to explore discover site dynamics, learn drawing conventions to document contours, and how designers manipulate slopes in a range of sizes. There are two projects in the studio: A preliminary sketch project includes a small urban pocket park located at a busy urban intersection with a change of 8 feet in height. Students are asked to design a path and place that is accessible, incorporating a universal design approach considering materials for retaining walls, street furniture and lighting. It allows students to discover site dynamics, introduces them to technical drawing, 3D modeling and ideation. It includes ways in which various drawing conventions are used to sketch, measure, and document a sense of place.

The second and primary site for this course is in a natural landscape designed by Frederick Law Olmsted. The area of the parkland identified for the studio borders an actively used pond with a change of elevation of approximately twenty-two feet. The park context is also used to understand climate and the need for solar orientation as well as considering how a building relates to high and low points within a site. Through manipulating site contours, students have design opportunities that include redesigning public pathways through the site as well as reshaping the water's edge. The project incorporates a collective community-based program to further develop ideas of public use and access. This requires them to understand the path system around the pond and to the neighborhoods beyond. Through observation, documentation and analysis of the pond, adjacent fields, and public park resources students gain an understanding of how this large park is used and how it could be enhanced by the addition of a public building that supports the recreation that occurs there.

### *EDAD 310/520 ARCHITECTURAL DESIGN II*

*Fall 2016, 2017, 2018*

This studio focuses on the development of tools and fundamental skills for primary competence in design leading to an emerging ability to integrate the implications of context and to develop the ability to think critically about "neighborhood" formally and socially. Through exercises intended to support this work,

students apply their understanding of users who they research collectively and apply individually in program development. This studio historically includes a sloped site that is urban and defined by a strong built neighborhood context that students document and analyze for pattern, material, massing and structure. Students are encouraged to introduce structural building systems that merge with the building materials of concurrent Structures II coursework (steel and concrete systems) with an element of program that includes a long span.

#### *FALL 2016 and 2017 Site*

The site was specifically selected for its historic and social context and is the site of a National Afro-American Artist Museum in a low rise urban environment that is ethnically and economically diverse. It is not constrained by an urban grid and includes natural landscapes and varied blocks that required students to evaluate multiple options for the siting of a complementary building for the museum. The site is sloped which is part of a large hill that defines the neighborhood. Students analyzed the entire neighborhood and discovered development differences between the north and south side of the hill which aided in discussions regarding equity.

#### *Physical, Historical and Social site context*

The site was Native American land before it became agricultural. Little evidence of Native American culture remains, however, some street names in the area are named after tribes and historic information easy to find. Through research, students discovered that the existing building on the site was originally a large residence for a wealthy landowner, now owned by the National Afro-American Artist Museum. Its two public edges differ in elevation by approximately 23 feet and students were required to engage both edges with their design. The project proposed a writing center as a way to build on the museums long-established writing residency. The existing museum building occupies a small portion of the land, which makes the site ideal for a site planning exercise linked to the development of a building proposal. The program limited the size of the building and required programmed outdoor space, and accessible access. To understand the physical landforms and characteristics of the site, an initial sketch project required students to design a path through the rise from the street to the top of the site, or from street to street. Students explored landscape materials, moved contours and diagrammed water drainage. They were required to use standard drawing conventions for swales, plantings, existing and proposed contours, stepped access and ramps. By the time they began their more in-depth project on the site, they had a detailed understanding of the slope, contours and site conditions and neighborhood patterning.

#### *FALL 2018 Site*

This fall, given current discussions of sanctuary cities in the US, the site design criteria were augmented by a political as well as social program. This studio which has two sites is currently in process, challenges students to develop a civic building that serves refugees and diasporic communities in the greater Boston area. Each of two studios for this semester selected sloped sites in different neighborhoods. The first, in Boston immediately adjacent to City Hall, proposes a building that would exemplify the civic elements of the context and building, responds to existing elements of access to city hall which includes steps and sloped paths that span 12-14 feet. The Boston City Hall project also allows students to place the building directly on the street or higher up in Government Plaza; a site that is one of the most active and significant civic areas in the City.

The second site, nested in an East Boston neighborhood, challenges students to develop a program in a complex ethnically diverse and economically challenged community. Students looked at the neighborhood patterning of predominantly triple-decker apartment buildings, the tight clustering of buildings and small lot sizes. The overall slope that must be addressed through site selection is approximately 31 feet. Students have chosen a variety of sites within this context that are within or on top of this slope - allowing them the choice of location and several options for connecting the building to the neighborhood. The studios while independent, collectively engaged in dialogue during the first half of the semester as they collected data from proposed users, compared social site contexts and evaluated how the issues differed between sites.

### *Physical, Social and Racial site context*

The civic site adjacent to Boston City Hall is narrow, busy, active, presently completely paved and requires the student to respond directly to the patterning of the civic buildings in Government Center Plaza. Students analyzed the site, program and larger context and came up with a range of approaches that included reinforcing existing patterning, creating an object building that deals with open space or taking clues from the sloped/stepped ground plane and intensifying that language into form.

The site in East Boston has a wild planted slope within a larger context of dense multi-family residential and commercial buildings. Students have been encouraged to site their building proposals in a range of ways that include building along the high side of the slope, adjacent to existing buildings as well as lower on the site. During the mid-term review, students were able to explain site decisions through analysis, diagrams and research. Because our student body is increasingly diverse in ethnicity, age and life experience, they have been a resource to each other during class discussions about the role architects and planners play in civic engagement. By the mid-term, students had completed initial studies for building orientation (solar and views), placement, and development of easy, safe access through the change in elevation for users requiring accessibility. Both studios studied the relationship of the civic or neighborhood grid and site and patterning of adjacent buildings as they developed plans to orient, access, and develop built and open spaces.

Site analysis assignments for each of these projects included an investigation of how cultural diversity of the city neighborhoods has changed over time and influenced site ownership and development. In the City Hall site, students learned about the demolition of the West End neighborhood and the building of Government Center. Developing a new street vitality within the context of City Hall Plaza is a requirement for students in this studio as they explore what it means to design for inclusiveness and civic engagement. In the second half of the semester, occurring now, students are developing their buildings further, enhancing or considering appropriate structural systems, entry, and visibility.

### *EDAD 320/530 ARCHITECTURAL DESIGN III* *Spring 2018*

The downtown Roxbury site assigned for this urban mixed use project was intentionally chosen for its physical, historical, social, racial, political, and economic complexity. In a series of exercises, students were asked to visit and research the site to document the myriad factors mentioned above, in order to design a multi-layered, dense urban housing solution that satisfactorily addressed the context. Added to the site research are discussions with local developers and the City of Boston to well understand the political and economic elements that impact projects.

### *Physical and Historical site context*

Called the Blair site due to the location of the popular Blair department store there in the 1960's, it had been cleared for urban renewal by the City of Boston after the retail buildings along the main shopping street had fallen into disrepair. It is currently a large parking lot, nearly 300' x 300', that sits as a void within what once was a thriving center of Dudley Square, a diverse, primarily African American neighborhood in Boston. It will soon be offered to developers for proposals, so it is timely that the students propose projects that can be shown to the Mayor and his staff.

The site has four distinct edges: a rundown warehouse building along the south border, the once busy but now struggling Washington Street shopping area to the west, a small street facing a cemetery on the north, and a quaint residential street of rowhouses to the east. The site itself also has several small brick buildings on it, containing a seasonal artisan market (called the Black Market) and an African American art gallery. Through sketching and photography, students strove to understand the variety of structures within and around the site. Through Sanborn maps and historic photographs, the students traced the transformation of the site from the farming plots of the 1700's to a vibrant retail district of department

stores, theaters, and nightclubs in the heyday of the mid 1900's, to the suburban retail flight of the late 1900's, to its current state.

The site also slopes 10' from one side to the other, creating several possible urban solutions. Many students studied stepped terraces and plazas that had to conform to ADA requirements, with ramps and handrails and/or slopes less than 2%. Others concealed a level of parking within the grade change, creating a 10' high wall of the parking garage toward the row houses that needed to be sensitively treated. Both choices required detailed sections and 3D studies.

#### *Social and Racial site context*

Through interviews and writing exercises, the students met with neighbors, store owners, and shoppers to gather a variety of personal perspectives about Dudley Square, memories of the past, and ideas for the future. Since the class was nearly half Caucasian and half African American, Latino, and other races, part of the studio was also to reflect on how the race of the architect/designer may have a subconscious impact on their experience of the African American neighborhood. The class learned from each other and the interviewees about bias. They appropriately questioned why this part of Boston could be so neglected, when other neighborhoods that had gone through similar divestment in the late 1900's are thriving commercial areas now.

#### *Political and Economic*

As the rest of Boston struggles with rising rents and gentrification, the Mayor must walk a fine line putting the Blair site out for proposals. While the City has been accused of exactly the neglect the students highlighted, neighbors are also wary of change. Community meetings about this site have turned into protests against developers who could transform Dudley Square in ways beyond the means of the average Roxbury resident. Understanding that every site in Boston faces community scrutiny and engagement is another important class goal for the students to understand the context of working as designers in Boston.

As part of the course, the students were introduced to an African American developer who shared his vision for improving the Blair site by bringing a mix of affordable, work force, and market rate housing as well as cultural facilities to bring Dudley Square back to its original exuberance. The students were able to see that the long term success of a contemporary urban project hinges on the designer understanding the physical, historical, social, racial, political, and economic context as well as finding developers who care about more than short term gains. He shared numerous insights with the students that went way beyond just this project: how developing in Boston requires building relationships over a lifetime with civic leaders, how challenging it is to be a black developer, and also how rewarding it is to transform derelict sites like this one into urban places that could be embraced by the neighborhood.

## PROFESSIONAL PROGRAM - GRADUATE ONLY STUDIOS

### *EDAD 702 ARCHITECTURAL DESIGN VII*

*Fall 2017*

#### *"Housing Yourself"*

The students were given a choice between two very different sites within walking distance to MassArt and within 4 blocks of one another. Both were relatively flat parking lots. The first site was approximately an acre, with buildings on 3 sides a busy student path on one side, and access to only one street. With the size of the program (100 graduate student housing beds) it lent itself to a high-rise solution of between 8 and 16 stories. The second site was much larger, approximately 3 acres, with streets on 3 sides and low-rise buildings across the street. Design solutions there could range from 3 to 8 stories.

Students completed a thorough site analysis of each site, including analyzing solar and wind orientation, pedestrian/bike/vehicular access, nearby amenities (or lack thereof), pedestrian desire lines, view corridors, recreation, public transit, and 5 and 10 minute walk circles. Students spent time on their sites at various times of the day, and on weekdays and weekends, and interviewed passersby, asking them their ideas of what is missing in the neighborhood and what they'd like to see there, and created a common space program based on what they heard. They made their site choices based on whether they wanted to design a project quite near the College (Site 1) with primarily student users, or on the edge of the college area where it borders public housing developments and the Mission Hill neighborhood (Site 2), with potential for shared community programs.

The dialogue of how the program and the designs responded to the two contrasting sites was rich and complex. Students who chose Site 1 designed tall buildings with various connections to the undergraduate housing nearby, and they used their buildings to enliven the existing student community with galleries, a cafe/bar, co-working spaces, and academic offices. Most of the units developed for this location were for singles and couples, focused on co-living models where much of the lounges and kitchens were shared. The image of the tall buildings were studied from short and long distances. Conversely, on Site 2, students designed low or mid-rise buildings, in keeping with the scale of the surrounding neighborhood. They proposed larger, apartment and co-op housing for graduate students including families with children, and introduced daycare, community gardens, a grocery store, and other functions that would add amenities for both the inhabitants and their neighbors.

## *EDAD 702 ARCHITECTURAL DESIGN VII*

*Fall 2018*

### *Bunker Hill Community College Project Site - Dormitories*

In this semester-long project, the graduate students are asked to develop master plan and architectural proposals for the future of Bunker Hill Community College, a poorly maintained campus of 1960's brutalist concrete structures built for 6,000 students that now serves 18,000. The urban site is in the shadow of a highway overpass and includes a busy transit station, 5 buildings, surface parking, and acres of playing fields. The State does not have enough funds to maintain the buildings or construct new ones, so the students must look for financing streams as well.

#### *Physical and Social site context*

The goals for the studio are to assess the needs of the College, understand the context of Charlestown's neighborhood growth patterns and the site's history, and propose options that make the most of the site's location and potential. The site also has a low point that frequently floods; students must find sustainable solutions for that area.

In their research phase, the students discovered that the reasons the site is isolated and neglected are the result of many factors:

- The site was never a part of Charlestown's residential neighborhood, it was historically a prison.
- The highway, part of urban renewal, further separated the site from Cambridge.
- The main boulevard beside the site creates an insurmountable barrier (fortunately it is undergoing substantial improvement by the City, reducing car traffic, adding bike lanes and a linear park).
- Most people strongly dislike the current concrete architecture.

Yet, through many site visits and interviews with Community College students and the President of the Community College, the Massart students learned that behind the bleak facades lay a vibrant place rich with energy, hope, and love. They heard first hand the hardships that community college students face, working while going to school, supporting their families, commuting, not having enough money for food,

even being homeless. The President has become well known for her outspoken push for free food programs on campus for vulnerable students.

Based on their site research, drawings, photographs, interviews, digital and physical models, the students have developed an extremely complex understanding of this site that has led to a well-considered set of master planning design proposals. Students in the second half of the studio are finalizing their planning and focusing in on individual buildings related to several collaborative master planning schemes addressing the issues of needs for student housing, connections within and to the outside of the site, and parking.

## 2. Changes or Planned Changes in the Program

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

### Massachusetts College of Art and Design, 2018 Response:

#### CHANGES IN THE ARCHITECTURE FACULTY

1. **Tamara Roy, AIA**, Principal, Stantec is a new full-time Tenure-Track faculty member who commenced in Fall of 2017. With a Master of Urban Design & Architecture from the Berlage Institute, and a 5-year Bachelor of Architecture from Carnegie-Mellon University, she has been able to actively contribute to the discussion of Site Design. She has also had an impact on the Thesis courses adding in Master Planning options, and contributed to the discussion on software in the curriculum. Named one of Boston's top 50 Power Women in Real Estate and elected the 2016 President of the Boston Society of Architects, Tamara is an architect and urban designer specializing in multifamily residential, academic and commercial projects. Her housing portfolio includes over 2000 affordable and market rate units. She was the senior designer for the MassArt Treehouse described as the most interesting Boston high rise in years by the Boston Globe and is currently designing student housing for the future for Western Michigan University. (*Resume and bio attached*)
2. **Margaret Hickey** retired in January of 2018, but continues to teach half-time or 3 courses per year (Structures I, Structures II and Structures Overview) as an Adjunct and Emeritus Faculty member. For over 40 years Meg taught the entire structures and building operating systems sequence, and one of the changes in the curriculum accommodates the loss of her rare dual role as a licensed architect *and* engineer, separating it between faculty members. She will continue to reduce her load, and likely fully retire within the next two years.

#### Succession Strategies for Structures and Building Operating Systems courses

- a. Lisa Rosenbaum, Visiting Faculty, currently works with Meg Hickey and is in the classroom as a math tutor and offers technical support beyond the classroom for each of the Structures I, II and Overview courses and could teach all of these courses at any time as an Adjunct. She has agreed to take over these courses when needed. Upon Meg's exit from the program, we will commence a search for a Structures and math faculty member, a position that may be shared with the Liberal Arts Department as Meg also taught a Calculus course.
- b. Keith Giamportone, AIA, LEED, Adjunct Faculty, will teach the new Building Operating Systems course starting this spring 2019. He has built many projects large and small that approach net zero. He has a strong background in commercial scaled projects, structures,



materials and building systems, as well as a clear understanding of the complexity of membrane layering for water, moisture and air infiltration in detailing building enclosures. We are looking to develop a temporary half-time position for him and currently in negotiations with the Provost. As a LEED certified professional and expert in building enclosures, Keith also teaches Sustainable Architecture and Integrated Systems. (*CV attached*)

3. **Paul Paturzo, Dean of Graduate Programs**, is scheduled to return to the architecture faculty as Associate Professor in Fall 2019. A search committee will soon be assembled for a new dean with a July 1, 2019 start date.

## CHANGES TO THE ARCHITECTURE CURRICULUM IN PLACE

### 1. STRUCTURES and BUILDING OPERATING SYSTEMS SEQUENCE TRANSITION (Approved Fall 2017)

For the past 40 years, structures and MEP systems have been taught together in a sequence of 4 courses by faculty member Meg Hickey. The existing sequence consisted of the following four courses, where Building Operating Systems were included in Structures II, III and IV along with structural systems.

**EDAD 227/517 Structures I:** statics, shear and moment diagrams for beams and slenderness ratio, applied wood building calculations, and wood and masonry construction.

**EDAD 317/527 Structures II:** steel construction, calculation of moment of inertia, section modulus, radius of gyration, compound wood and steel cross sections, applied steel building calculations, plumbing, insulation, heat transmission, and thermal comfort systems.

**EDAD 327/537 Structures III:** compound steel cross sections, solving trusses, sizing members, applied truss calculations, foundation design, flat roof design, lighting and electricity.

**EDAD 417/547 Structures IV:** Three-hinged arch solution, concrete construction, concrete slab, joist, beam and successive column design, acoustics, vertical transport, fire safety.

Upon Meg's retirement from full time teaching we reorganized the teaching of these topics:

**EDAD 227/517 Structures I:** the same content as previous. Graduate and Undergraduate requirement.

**EDAD 317/527 Structures II:** (*now including steel, trusses and concrete*): It also contains the structural calculation and construction topics formerly in Structures 2 and Structures 3, plus an introduction to concrete. Graduate and Undergraduate requirement.

**EDAD 367/567 Building Operating Systems:** mechanical, electrical, heat transfer, climatic comfort, plumbing, vertical transport, acoustics. This course addresses these systems through the lens of sustainability and climate resilience.

Prerequisite: Structures 1, Structures 2.

Graduate and Undergraduate Requirement.

The new three course sequence above, including *EDAD 367/567 Building Operating Systems* is required of all graduate and undergraduate students.

**EDAD 427/577 Structures Overview:** designed for students who require a comprehensive overview of current structural methods in the United States. Covers structural examples and calculations for reinforced concrete, steel, wood frame and cross laminated timber. Students accustomed to a masonry

building tradition are introduced to the possibilities of wood and related calculation methods. Computations are presented in typical applied context.  
Prerequisite Structures 1, Structures 2, elective for undergraduates.  
Graduate course required for T1 and T2 students *by advising*.

*Structures Overview* takes the place of the existing Structures IV. Through advising, incoming students to the graduate program, or undergraduate students who are planning to take the licensing exam, can elect this course in the Fall of each year. NOTE: *Graduate students entering Track II or students entering Track I with some but not complete preparation, may be required to take EDAD 427/577 Structures Overview if lacking evidence of structural systems preparedness in their portfolio, transcripts or course descriptions.*

*Meg continues to teach the structural calculation and construction topics as adjunct faculty in the three structures courses. The remaining building systems topics will be taught by Keith Giamportone, adjunct, in a new course commencing spring 2019. This change is helpful when reviewing incoming students who may have had a good MEP course, but still need structural calculation experience, or the reverse case where the student already had structures but still needs MEP.*

## **2. THESIS PREP + THESIS I COMBINED (Approved Fall 2018)**

We formerly stretched the Thesis sequence across Spring, Summer and Fall (*EDAD 760 Thesis Prep, EDAD 806 Thesis I and EDAD 808 Thesis II*). We have changed this to have required coursework in only Spring and Fall due to student lobbying of faculty for working opportunities. This change cleared the second summer in Track II for full time work for students who want to select an internship, and/or augment their thesis research through travel.

**EDAD 708 Thesis I** Commencing Spring 2019, we created a new 6-credit course from Thesis Prep and the former Thesis I. This new course will precede the existing fall 6-credit *EDAD 808 Thesis II*. Content includes that of the two individual courses. Total credits remain the same.

## **3. SOFTWARE COMPETENCIES ADDED (Approved Fall 2018)**

**Additional software competencies have been added to the graduate sequence. (Adobe Creative Cloud (including photoshop, InDesign, Illustrator) and Sketchup.** This change recognizes that students who have a broad range of software competencies are better prepared in developing strong professional communication skills for the studio *and the profession* and that these skills vary widely among incoming students. The faculty voted in support of developing access to additional current software in the industry. To support this development there will be multiple ways to access training.

### **NOTES:**

- *While this outlines the current software important to practice today, the nomenclature will evolve to include the specific software expertise needed to address changing requirements in the field.*
- *This material will also be evaluated one-on-one through portfolio review at entry to the program, and ongoing assessment of software competency for design and presentation in the studios through advising.*
- Starting in Spring 2019, we will be offering free workshops in SketchUP (providing paid work opportunities to current students to teach short workshops in *Sketchup* over the Summer or Wintersession)
- Students may independently learn Adobe Cloud software through Lynda.com; or
- The Adobe Creative Cloud is offered every semester: fall, spring and summer through the Communication Design Department and also through Continuing Education. Students who are required to, or elect to take these courses will receive professional elective credit.

#### 4. CHANGES IN SEQUENCE BUT NOT COURSE CONTENT (Approved FA17 and FA18)

**EDAD 332/532 Sustainable Architecture** was moved from the spring to the fall semester, better coordinating with the undergraduate curriculum and importantly providing earlier exposure to this area of study in the student's program sequence at all levels.

**EDAD 216/516 History of Architecture and Urban Planning I** is moved from spring to fall semester, starting FALL 2019.

**EDAD 316/526 History of Architecture and Urban Planning II** is moved from fall to spring semester, starting Spring 2020, making it optional for the first summer session of the graduate program. (This change will begin next summer.)

#### 5. NEXT STEPS in CURRICULAR REVIEW

This Fall 2018 we commenced a review of *EDAD 605 Community Build Studio*, a full time, 11-week summer design-build studio that runs in the entering Track II first summer. Now having completed 10 years, we are asking, "What is next that will enhance a second 10 years?" and "Should the projects change in size?" and "How do we better enhance the transition to the profession with additional leadership, design collaboration and building detailing skills?"

As a faculty we agreed on the importance of the course for developing each student cohort as a community, providing opportunity for student leadership and collaboration, for managing the financial aspects of the design-build experience, and for enabling students to run projects on site while also understanding the implications of making something that they have designed.

Our current discussion includes reviewing how we develop projects:

- Moving it to a call through the institution making opportunities more public
- Updating the financial structure of the program including looking at who manages project development with compensation for this additional work. We recently met with Robert Perry, Vice President for Administration and Finance, and developed a revised system of payments, and are looking toward streamlining the process of project development in future years.

#### NEW EQUIPMENT AND LABS IN SUPPORT OF CURRICULUM DEVELOPMENT

Since the last visit in 2016 we added a 3D printing lab with one machine installed adjacent to the 10th floor computer lab and a new laser cutter in the new Design and Media Center (DMC) accessible to the entire school. Additionally this Fall 2018, we converted a small classroom into a new 10th floor 3D printing / digital fabrication lab associated with an existing small seminar space, Room 1007. This was supported by a grant Patricia Seitz received, including furniture and equipment. The room was converted to a shared workplace to support the additional 3D and digital equipment for the Architecture program including:

- Prusa I3MK3 3D printer (PLA)
- Silhouette Cameo Vinyl Printer
- Arduinos to support MassMakers Studio (a new Professional Elective in its third iteration that attracts students from graduate and advanced UG programs in Architecture, Industrial Design, Graphic Design and Sculpture)
- Table and miscellaneous supplies

Academic Affairs funds were also used to add new equipment to the All-School Woodshop in the Lower Level of the Design and Media Center (DMC) for all programs across the college:

- Plasma CNC for machining metal

The graduate program is also purchasing the following equipment this academic year to upgrade the current Graduate FabLAB located on the Fourth Floor in the Graduate Studios:

- 3' x 5' CNC Router. Funds are approved for this purchase as well as for a half-time studio technician position. This position will support the equipment in the Graduate Studios as well as provide trainings to students and faculty. The position will be filled and the CNC will be in place by the end of this academic year.
- Two Additional 3D printers will be added to the Graduate Studio FabLAB this academic year.

## PROGRAM FINANCIAL INFORMATION

This fall, MassArt completed a college-wide strategic plan that has acknowledged the important role graduate students play on our campus. The plan provides guidance for increasing opportunities in research, curriculum development and visibility.

In addition, our engagement beyond campus is quickly expanding and the program is providing opportunities for our students and alumni, which in turn has raised our visibility in the art and design community. In the past few years we have developed artist-in-residence programs for recent alumni that take place in Bangalore India, Beijing China and Cambridge Massachusetts. This year, MassArt has partnered with MASS Moca, the largest museum of contemporary art in North America, to engage with our graduate students in several ways. A MassArt/MASS Moca co-sponsored residency program will allow recent graduates from our program to live and work at MASS Moca for one month, focusing on creative projects of their choice. The first group of alumni will be in residence at MASS Moca during the summer of 2019.

The Graduate Program—nine disciplines including architecture—has maintained financial stability, enabling the program to save just over one million dollars in its fund balance while keeping tuition and fees level for the past five years. The fund balance for all nine graduate programs is a shared resource that enables us to develop programs, fund accreditation visits and expand our technology. The expenditures for the M.Arch program for FY 2018 totaled \$440,431, and revenue totaled \$571,827, therefore the M.Arch program was able to contribute \$131,396 to our fund balance in FY 2018.

The Graduate Program has maintained low tuition for all students. In fact, the per credit rate has remained at \$780 for five years. While our scholarship program is small, we are able to provide stipends for graduate students in their final semester in order to offset costs related to thesis work. Each incoming graduate student will receive a \$2,000 stipend during their final semester. Assistantships and other on-campus employment remain available to graduate students.

There has been no change to the approach of financial management of the M.Arch program from FY 2016 to FY 2018. In FY 2018 revenue increased 33% as more credits were sold. Expenses decreased by 8% with decreases in staff costs, reduced travel costs, and the higher student employment cost for the 2016 NAAB visit.

The \$440,431 in M.Arch expenses for FY 2018 funded, among other things, faculty pay, student on-campus employment, professional memberships, library and teaching support material, food services, marketing and events, physical plant and college student services. (*See Spreadsheet in Appendix*)

## CHANGES IN CHIEF ACADEMIC OFFICERS (*See resumes and bios in Appendix*)

1. **David P. Nelson** officially joined the institution as the new President at the beginning of summer 2016, but as he was visiting the campus during the March 2016 NAAB Team Visit, he met with

the visiting team. He was preceded by Interim President Kurt Steinberg who stepped down at the end of the 2015-1-2016 academic year and returned to his role of Vice President for Administration and Finance.

2. **Ken Strickland**, former Provost and Senior Vice President retired in June 2017
3. **Lyssa Palu-ay, Interim Provost**, succeeded Ken Strickland. A search for a new Provost this fall was successful and **Dr. Kimberly Pinder** will join the community
4. **Dr. Kymberly N. Pinder, Provost and Senior Vice President of Academic Affairs**, will begin in January 2019. She will participate in the finalization of the search for the new Dean of Graduate Studies
5. **Paul Paturzo, current Dean of Graduate Studies** will step down at the end of the academic year and rejoin the architecture department as a faculty member. A new Dean of Graduate Studies will join the institution in July 2019
6. **Robert Perry** is currently Interim Vice President for Administration and Finance, after Kurt Steinberg retired from the college. Bob's prior role was Associate VP of Administration
7. **Attorney, Gina Yarbrough** will be joining MassArt in December 2018 as the College recently created a new position for an on-campus general counsel.

**(3. Summary of Activities in Response to Changes in the NAAB Conditions  
2014 NAAB Conditions) NOT APPLICABLE)**

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

**Massachusetts College of Art and Design, 2018 update:**

- FINANCIAL SPREADSHEET 2016 and 2018
- PROGRAM CHANGES SHEET per Narrative, approved
- REVISED CURRICULA ADDRESSING SPC - SITE DESIGN
  - **EDAD 310/520 Architectural Design II** (2 vertical studio sections)
  - **EDAD 320/530 Architectural Design III** (2 vertical studio sections)
  - **EDAD 702 Architectural Design VII**
- REVISED CURRICULA DUE TO FACULTY CHANGES:
  - **EDAD 317/527 Structures II**
  - **EDAD 367/567 Building Operating Systems**
  - **EDAD 427/577 Structures Overview**

REVISED CURRICULA DUE TO PROGRAM CHANGES

- **EDAD 708 Thesis I**
- CV/BIO
  - Tamara Roy CV/BIO
  - Keith Giamportone CV
  - David P. Nelson CV
  - Lyssa Palu-ay CV
  - Dr. Kymberly N. Pinder BIO

## M.Arch Financial for NAAB IPR - Comparison of FY 2016 and FY 2018

Final June 30, 2016			Final June 30, 2018			2018 - 2017 Difference	
	Grad Tuition	-537,810		Grad Tuition	-588,120	-50,310	Increased Credits Sold
	Scholarships	58,500		Scholarships	32,300	-26,200	Scholarship Program Change
	Tuition Waivers			Tuition Waivers	7,020	7,020	
	Summer Housing	-3,000		Summer Housing	-11,400	-8,400	
	Deferred SU Revenue	-78,000		Deferred SU Revenue	-108,147	-30,147	See Notes
	Unearned SU Revenue	130,440		Unearned SU Revenue	96,520	-33,920	See Notes
<b>Total</b>	<b>FY 2016</b>	<b>-429,870</b>	<b>Total</b>	<b>FY 2018</b>	<b>-571,827</b>	<b>-141,957</b>	
<b>Revenue</b>		<b>429,870</b>	<b>Revenue</b>	<b>FY 2019</b>	<b>571,827</b>	<b>141,957</b>	<b>33%</b>

Expenses			Expenses			Difference	
AAAAA	AA Payroll Staff	69,997	AAA14	Bonus Pay/Awards	352	352	
BBBB5	Trav, Conf	2,001	AAAAA	AA Payroll Staff	47,455	-22,542	-
CCC01	<b>Contracted Faculty</b>	<b>46,594</b>	BBBB5	Trav, Conf	251	-1,750	
CCC05	Contracted Student	5,902	CCC01	<b>Contracted Faculty</b>	<b>78,503</b>	31,909	+
CCCC5	Student Campus Empl	36,467	CCC05	Contracted Student	1,616	-4,286	
DDDDD	Fringe Staff	25,158	CCCC5	Student Campus Empl	24,328	-12,139	NAAB Visit
EEE01	Office + Admin	660	DDDDD	Fringe Staff	20,328	-4,830	
EEE13	Advertising	70				-660	
EEE19	Fees, Licenses, Permits	440				-70	
EEE12	Toner & Ink	1,000				-440	
EEEEM	Membership (ACSA)	8,786				-1,000	
FFF01	Food/Bev	1,364	EEEEM	Membership (ACSA)	9,070	284	
FFF16	<b>Lib, Teach Suppl</b>	<b>27,336</b>	FFF01	Food/Bev	725	-639	
FFF25	Main Rep Tools	98	FFF16	<b>Lib, Teach Suppl</b>	<b>24,864</b>	-2,472	
			FFF25	Main Rep Tools	565	467	
FFFFT	Academic Student Travel	5,849				-5,849	Class Trip
HHH98	Reimbursement Travel	8,096				-8,096	NAAB Visit

JJJ56	Food Services	3,379
	<b>Transfer to Campus support (01 Faculty)</b>	<b>139,025</b>
WWCST		<b>382,223</b>

HHH15	Hon. Visiting Artists	2,200
JJJ56	Food Services	28
	<b>Transfer to Campus support (01 Faculty)</b>	<b>106,185</b>
WWCST		<b>316,471</b>

2,200	
<b>-3,351</b>	NAAB Visit
<b>-32,840</b>	-
<b>-65,752</b>	<b>-17%</b>

Expense Summary FY 16	
<b>Total Instructional</b>	<b>212,955</b>
<b>Overhead</b>	
Assessment (20%)	85,800
Overhead Exp	<b>169,268</b>
Overhead Exp +	
Assessment	255,068
20% of shared 7200	11,777
<b>Total Overhead Exp +</b>	
<b>Assessment + Shared</b>	<b>266,845</b>
<b>Final Total</b>	<b>479,800</b>

Expense Summary FY 18	
<b>Total Instructional</b>	<b>209,552</b>
<b>Overhead:</b>	
Assessment (23%)	112,332
Overhead Exp	<b>106,919</b>
Overhead Exp +	
Assessment	219,251
23% of Shared 7200	11,629
<b>Total Overhead Exp +</b>	
<b>Assessment + Shared</b>	<b>230,879</b>
<b>Final Total</b>	<b>440,431</b>

Diff \$	Diff %
-3,403	-2%
26,532	31%
-62,349	-37%
-35,817	-14%
-35,965	-13%
-39,368	-8%

**Notes:** **Instructional Expenses** includes faculty and educational supplies including community build course materials.  
**Deferred Summer Revenue** is the unearned summer revenue of the prior fiscal year, that applies to the current fiscal year.  
**Unearned Summer Revenue** - Business Office adjustment - this revenue will be applied to the next fiscal year (July-August)

2016: Shared Expenses Under 7200 20% M.Arch		
EEE06	Postage	1,233
EEEE6	Ctr Services Xerox	6,058
EEE12	Subscriptions Mailchimp	4,811
EEE13	Advertising	46,783
<b>Included Shared Overhead from 72</b>		<b>58,885</b>
<b>M.Arch 20%</b>		<b>11,777</b>

2018: Shared Expenses Under Program Code 7200		
EEE06	Postage	205
EEEE6	Ctr Services Xerox	4,869
EEE12	Subscriptions Mailchimp	1,650
EEE13	Advertising	43,836
<b>Included Shared Overhead from 72</b>		<b>50,560</b>
<b>23% M.Arch</b>		<b>11,629</b>

M.Arch Contribution to Fund Balance FY 18	
FY 2018	
Revenue	571,827
Expenditures	440,431
<b>Contribution</b>	<b>\$131,396</b>

<b>Total Credits 15-16</b>	<b>2969</b>
<b>Credits M.Arch 15-16</b>	<b>579</b>
<b>M.Arch % of Credits</b>	<b>20%</b>

<b>Total Credits 17-18</b>	<b>3387</b>
<b>Credits M.Arch 17-18</b>	<b>785</b>
<b>M.Arch % of Credits</b>	<b>23%</b>

Diff \$	Diff %
206	36%

## MassArt Master of Architecture Program: Track I & Track II Requirement Changes 2017-2018

Prior Requirements			New Requirements	
Course Title	Credit	Course #	Course Title	Credit
	<b>42</b>	<b>Track I / Year 1</b>	<b>Track II Prerequisites</b>	<b>42</b>
	<b>12</b>	<b>Summer</b>		<b>9</b>
Architectural Design I	3	EDAD 510	Architectural Design I	3
Architectural Structures I	3	EDAD 517	Architectural Structures I	3
Methods and Materials	3	EDAD 502	Methods and Materials	3
History of Arch & Urban Planning I	3			
	<b>15</b>	<b>Fall</b>		<b>18</b>
Architectural Design II	3	EDAD 520	Architectural Design II	3
Architectural Structures II	3	EDAD 527	Architectural Structures II	3
History of Arch & Urban Planning II	3	EDAD 516	History of Arch & Urban Planning I	3
Revit or 2D/3D Software (competency)	3	EDAD 518	Revit or 2D/3D Software (competency)	3
		EDAD 532	Sustainable Architecture	3
Professional Elective	3		Summer, Fall or Spring Term Adobe Creative Cloud / Sketchup (competency) or Professional elective if competency is fulfilled.	3
	<b>15</b>	<b>Spring</b>		<b>15</b>
Architectural Design III	3	EDAD 530	Architectural Design III	3
Architectural Structures III (EDAD 537)	3	EDAD 567	Building Operating Systems	3
Sustainable Architecture (EDAD 532)	3	EDAD 526	History of Arch and Urban Planning II	3
Professional Practice I	3	EDAD 535	Professional Practice I	3
Professional Elective	3		Professional Elective	3
	<b>45</b>	<b>Track I / Year 2</b>	<b>Track II / Year 1</b>	<b>48</b>
	<b>12</b>	<b>Summer</b>		<b>12</b>
Community Build Studio	12	EDAD 605	Community Build Studio	12
	<b>18</b>	<b>Fall</b>		<b>18</b>
Architectural Design VII (Integration Studio)	6	EDAD 702	Architectural Design VII (Integration Studio)	6
Making Cities Work (Urban)	3	EDAD 711	Making Cities Work (Urban)	3
Architectural Structures IV (EDAD 547)	3	EDAD 577	Structures Overview	3
Integrated Systems	3	EDAD 720	Integrated Systems	3
Professional Elective	3		Professional Elective	3
	<b>15</b>	<b>Spring</b>		<b>18</b>
Architectural Design VIII (Comprehensive Studio)	6	EDAD 752	Architectural Design VIII (Comprehensive Studio)	6
Thesis Preparation (EDAD 760)	3	EDAD 708	Thesis I Includes Thesis Preparation and Thesis t Content	6
Adv. Arch Hist Theory Crit Seminar	3	EDAD 5XX	Adv. Arch Hist Theory Crit Seminar	3
Professional Elective	3		Professional Elective	3
	<b>15</b>	<b>Track I / Year 3</b>	<b>Track II / Year 2</b>	<b>12</b>
	<b>6</b>	<b>Summer</b>		
Thesis I (EDAD 806)	3		In summer, Students may take a Professional Elective or 3cr Internship.	
Professional Elective on making	3			
	<b>9</b>	<b>Fall</b>		<b>12</b>
Thesis II	6	EDAD 808	Thesis II	6
Professional Practice II	3	EDAD 805	Professional Practice II	3
			Professional Elective on Making	3
<b>Track II Credit Total</b>	<b>60</b>		<b>Track II Credit Total</b>	<b>60</b>
<b>Track I Credit Total</b>	<b>102</b>		<b>Track I Credit Total</b>	<b>102</b>

Move in sequence	New course - adjusted content	New Course, increased credit - 2 courses combined
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Roger Tibbetts

Untitled

## Massachusetts College of Art and Design

<b>EDAD310/520</b>	<b>Architectural Design II</b>	<b>Fall 2016</b>
Credits:	3	
Meeting time:	Tuesday 1:00PM-4:30 PM 613 & 10 <sup>th</sup> Floor Studios	
	Thursday 1:30 PM-4:30 PM 10 <sup>th</sup> Floor Studios	
Faculty:	Jay Weber worldweber@gmail.com cell: 617-888-5136	
TA:	Mahsa Zehtabian	

## **Course Description**

This studio course explores the formal, social and cultural implications of architecture in the design of an addition to the Museum of the National Center for African American Artists, at 400 Walnut Avenue in Roxbury, a 45 minute walk, or 30 minutes by public transportation from the Mass Art campus. The design will be developed using an iterative process of analysis and synthesis, while emphasizing the effective communication of ideas in hand and computer drawings and diagrams and both physical and digital models.

The Museum itself is in a puddingstone mansion built in 1872 for a Boston industrialist, Aaron Williams, Jr., in the “Victorian Gothic” style, and converted into a museum about a century later. The renovations for the museum appear to have been done on a limited budget, and the mansion is in significant disrepair. The site occupies a portion of an irregular block, which it shares with a school, playground and baseball field and some smaller residences, one of which is also puddingstone, and may have been an outbuilding. Much of the block surrounded by a puddingstone wall, presumed to have been associated with the original estate. The residential fabric of the surrounding neighborhood is varied, and though punctuated by vacant lots, is mostly intact.

Students will reorganize the existing site in order to clarify pedestrian and vehicular movement, distinguish the museum grounds from adjacent uses, improve the identity of the Museum, and allow for the proposed addition.

The course will examine the nature of abstract thinking, analyzing the work of MassArt Artist-in-Residence, Roger Tibbets, as a reference. The analysis will be used as a model for developing an analysis of the site, the program and the construction of the museum addition.

The class will include readings and class discussions on the social and cultural implications of form, at the scale of buildings, neighborhoods and cities.

Faculty will endeavor to balance department goals and course objectives with each student’s personal direction for his/her work.

## **Department Goals**

Students in this advanced studio are expected to :

Set example of high standards by producing thorough and graphically clear work.

Collaborate and develop collegiality by working in the studio.

Participating in reviews of other studios within the department and the school.

## **Course Objectives**

Students will:

- develop their understanding of how their process (materials and methods of the design) influences the result.
- understand and apply ordering systems across scales in their work.
- research and use precedents to develop ideas and link them to a larger cultural and historic context.

- integrate a sensitivity toward the historic, global and cultural significance of the project with the building program and physical context.
- collaborate in the acquisition and interpretation of site and code data.
- consider material choices as part of an overall strategy for the building proposal with regard to site and sustainability.
- practice public speaking techniques integrated with graphic information in the oral presentation of their preliminary and final reviews.
- prepare, present and submit clear graphic representations of their design proposals.

**Student Performance Criterion addressed:** (including number and title)

A.5 Ordering Systems (ability)	B.2 Site Design (ability)
A.6 Use of Precedents (ability)	B.3 Codes and Regulations (understanding)

**Topical Outline** (including percentage of time in course spent on each subject)

Pre-design, Research and Conceptual Skills including observation, setting of intention and zoning and building code interpretation (25%)	Design Process/Investigative Skills including use of precedents ordering systems and environmental and structural criteria (25%)
Design Resolution Skills, including integration of all earlier phases into a coherent design and presentation (25%)	Communication Skills, verbal, visual and written (25%)

**Prerequisites:** EDAD223/510 Architectural Design I

**Course Content**

Students will have one project for the entire semester however the work will be divided into three phases as described below. Assignments, including lists of deliverables, will be described further in handouts.

**Phase One, Analysis and Conceptual Design**

During this phase, students explore ordering systems, gather site information and evaluate program requirements. Architectural, historical and cultural precedents are documented and analyzed. In addition, students are expected to generate concepts that will be used to launch the building design in phase two.

Assignments for Phase One:

**1. Analysis of an Artwork**

- a. Graphic Analysis
- b. Analytical Model
- c. Interpretation as Ordering System
- d. Order and Structure

## **2. Site Documentation and Analysis**

- a. Site Plan, Site Model, Site Section
- b. Graphic Analysis of Site
- c. Interpretive Site Model
- d. Topography and Use

## **3. Building Program Analysis & Response**

- a. Program and Massing
- b. Museum, Precedent and Response
- c. Addition, Precedent and Response
- d. Performance, Precedent and Response

## **Phase Two, Design Development.**

In this phase students develop design proposals for a building and site using the technical and conceptual work from phase one as a reference..

Assignments for Phase Two:

## **4. Site Design and Building Massing**

Consider context, paths, plantings, parking, building identity, light studies, grading, water management, accessibility, life safety and environmental stewardship at the site level.

- a. Massing Proposals related to Site (models)
- b. Site Plan and Sections

## **5. Exploration of Form**

- a. Diagrammatic Plans, Sections, Elevations
- b. Initial Models

## **6. Materials and Tectonics**

- a. Materials, Program and Structure
- b. Materials and the Site
- c. Order, Structure and Construction

## **Phase Three, Iteration and Documentation of Proposed Design**

During this phase, students continue to develop their design proposals for the building and site and translate their work into documents that are increasingly explicit with respect to dimension, scale, material and design intent.

Assignments for Phase Three:

## **7. Iteration and Documentation**

- a. Floor Plans
- b. Building Sections and Elevations
- c. Mock up Presentation
- d. Combined Plan/Section/Axonometric
- e. Draft Model and Rendering
- f. Final Model
- g. Final Perspective Rendering
- h. Rendered Site Plan
  - Building Plans
  - Site Sections
  - Building Sections
  - Elevations

## **Course Assessment and Grading**

As noted above, 25 percent of the grade will be based on each student's communication skills, verbal, visual and written. This includes contribution to class discussions and pin ups as well as diligent attention to delivering assignments complete and on-time. **As part of this assessment students are required to submit a digital portfolio that records the work of the semester prior to receiving a grade.**

In addition to the grades assigned by the faculty member, assessment will be in the form of reviews from peers, other faculty and guest critics. Students are expected to present work and discuss course topics in both individual meetings and group forums. Every effort will be made to let students know where they stand over the course of the semester, including providing an unofficial mid-semester assessment.

### Grading Criteria

**A** Exceptional work in all respects.

**B** Above average work, distinguished in certain but not all respects.

**C** Average. This is the lowest passing grade for graduate students and reflects meeting all the requirements of the course, without distinction. A "C-" or lower is considered a failing grade for graduate students.

**Inc.** Incomplete. A temporary designation indicating that at least 80% of the course requirements have been met and that the remaining course requirements are expected to be completed, and a permanent grade designation issued by the subsequent mid-semester. The student is responsible for having an Individual Grade Sheet completed by the appropriate

faculty member and filed with the Registrar. If the student does not complete the course work, a non-passing grade will be issued.

### **Plagiarism**

Whenever your work incorporates someone else's research, images, words, or ideas, you must properly identify the source unless you can reasonably expect knowledgeable people to recognize it. Proper citation gives credit where it is due and enables your readers to locate sources and pursue lines of inquiry raised by your work. Students who do not comply will be penalized. For further information, see the MassArt Student Handbook or consult with the Academic Resource Center.

### **Classroom Accommodations for Students with Disabilities**

Massachusetts College of Art and Design is committed to fostering the academic, personal, and professional growth of our students. We are especially committed to ensuring that students with documented disabilities, as defined under the Americans with Disabilities Amendments Act of 2008 (ADAAA), are provided equal access to all campus resources and opportunities. If you believe you have a disability that may warrant accommodations, I urge you to contact the Academic Resource Center (ARC) at [arc@massart.edu](mailto:arc@massart.edu) or [617-879-7280](tel:617-879-7280). The ARC is located in the Tower Building, Rm 811. The Academic Resource Center provides academic support to all matriculated MassArt students through access to academic advisors, a learning specialist, academic coaches, professional writing and subject tutors, and training on assistive technology.

### **Course Attendance**

The college-wide policy on attendance permits no more than two absences per semester for a course that meets once a week, prorated for classes that meet on a different schedule. Since we meet twice a week, five absences will cause you to fail the course. If you are more than ten minutes late to class it will count as an absence without exception.

### **Course Expectations**

1. During class time students are expected to be present and working on material specifically for this course.
2. Class will meet as a group at the beginning of class at 1:30 PM sharp.
3. Expect to meet as a group at the end of each class in your studio
4. Cellphone use, texting, facebook etcetera should be avoided during class time.
5. Students are expected to be organized and follow the calendar. This course needs to cover a great deal of material, if you are unorganized and miss deadlines you will fall behind.
6. Students are expected to attend every class. More than two unexcused absences will impact your grade. Upon your fifth unexcused absence, you will not receive credit for the course.
7. If you are more than ten minutes late for class it may be counted as an absence.
8. Try your best to leave 1/2 hour open before and after each class. (Students who schedule work too close to class time often are late and unprepared)
9. If you realize that you will be late or absent, text your instructor well in advance. Failing to do so is discourteous and disrespectful to both the instructor and your classmates.

10. Please be familiar with MassArt's academic policies regarding student performance and proper crediting of images and information. The library is a useful resource for this.
11. If you have any special needs or health issues please obtain a letter from Student Development and submit a copy to your instructor.

### **Course Materials**

Paper, drawing supplies, tracing paper, model making supplies, basswood digital prints

### **Textbooks/Learning Resources**

2012 IBC

Boston Zoning Maps, BRA Website

ADA/ADAAA (Americans with Disabilities Act Amendments Act of 2008)

Francis Ching, *Building Codes Illustrated*, 2003, John Wiley and Sons, Inc. NY

Edward Allen and Joseph Iano. *The Architect's Studio Companion*. 4<sup>th</sup> ed. John Wiley and Sons, Inc. NY. 2007, print

Osamu A. Wakita and Richard M. Linde. *Architectural Working Drawings*. 3<sup>rd</sup> ed. John Wiley and Sons, Inc. NY, 2003, print.

E.E. Viollet-le-Duc (1814-1879) , edited by M.F. Hearn, *The Architectural Theory of Viollet-le-Duc*, 1990, MIT Press

Ben Shahn, *The Shape of Content*, 1957, Harvard University Press

Henri Lefebvre, *The Production of Space* ,1974, Translated by Donald Nicholson-Smith, 1991 (online)

Victor Hugo (1802-1885), *Notre Dame de Paris, (1831)* Translated by John Sturrock, 2004, Penguin Classics

Kevin Lynch, *What Time is this Place?* 1972, MIT Press

Kevin Lynch, *Site Planning*, 2<sup>nd</sup> Edition, 1971, MIT Press

Francis Ching, *Architecture, Form, Space, and Order*, 3<sup>rd</sup> Edition, 2007, John Wiley and Sons, Inc. NY

Judith Stein, *I Tell My Heart, The Art of Horace Pippin*, 1993, Pennsylvania Academy of the Fine Arts

David Orr, *The Nature of Design, Ecology, Culture and Human Intention*, 2002, Oxford University Press

Boyer and Mitgang, *Building Community, A New Future for Architecture, Education and Practice*, 1996, Carnegie Foundation for the Advancement of Teaching.

Jay Hambridge, *Dynamic Symmetry, The Greek Vase*, 1920, Yale University Press.

Note regarding Course Calendar: All the dates are subject to change, however, the intended pattern is for assignments to be issued on a Tuesday, students to work to find a direction in time for desk crits on Thursday, and pin-ups on the following Tuesday, when a new assignment or set of assignments will be begun. This does not mean that an assignment pinned up on Tuesday is complete, simply that the work must continue to move forward. All assignments are open to improvement right up to the final review ( and even after!)

## Course Calendar

### September

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Tuesday	<b>06</b>	Course Introduction Discussion - Course expectations Issue Assignment 1a: Analysis of Artwork (graphic) Issue Assignment 2a: Site Plan, Site Model, Site Sections Field Trip to Site Reading: Race and the Built Environment
Thursday	08	Class Discussion: Race and the Built Environment Work in Class Sign Up for Laser time
Tuesday	<b>13</b>	Pin up 1a: Analysis of Artwork (graphic) Begin Assignment 1b: Analytical Model of Artwork Begin Assignment 1c: Interpretation of Artwork as Ordering System Begin Assignment 2b: Site Analysis (part 1) Reading: Intersectionality
Thursday	15	Class Discussion: Intersectionality Second Field trip to site/ Work in class
Tuesday	<b>20</b>	Pin up 1b: Analytical Model of Artwork Pin up 1c: Interpretation of Artwork as Ordering System Begin Assignment 2b: Site Analysis (part 2) Reading: Spatializing Culture
Thursday	22	Class Discussion: Spatializing Culture work in class
Tuesday	<b>27</b>	2a: Site Plan, Site Section, Site Model (contours complete, buildings documented) Pin up 2b: Site Analysis (parts 1 and 2) Begin Assignment 2c: Interpretive Site Model Issue Assignment 3a: Program and Massing Reading:
Thursday	29	Discussion: Work in Class



## October

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Tuesday	<b>04</b>	Pin up 2c: Interpretive Site Model Pin up 3a: Program and Massing Begin Assignment 3b: Museum: Precedent & Response Begin Assignment 3c: Addition: Precedent & Response Begin Assignment 2d: Site Topography& Use
Thursday	06	Work in class 2a: Site Section, Site Model: buildings and trees complete
Tuesday	<b>11</b>	Pin up 3b: Museum: Precedent & Response Pin up 2d: Site Topography & use Begin Assignment 3d: Performance: Precedent & Response Issue Assignment 4a: Site Design and Building Massing
Thursday	13	Work in class
Tuesday	<b>18</b>	Pin up 3c: Addition: Precedent & Response Pin up 3d: Performance: Precedent & Response Pin up 4a: Massing Related to Site Issue Assignment 5a: Diagramatic Plans and Sections Issue Assignment 5b: Initial Models
Thursday	20	Work in class
Tuesday	<b>25</b>	Work in class
Thursday	27	<b>Mid Review</b> Analysis and Response: Artwork, Site and Program

## November

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Tuesday	<b>1</b>	Review Post-Mortem Begin Assignment 4b: Site Plan and Sections Issue Assignment 6a: Materials: Program and Structure Issue Assignment 6b: Materials and the site Issue Assignment 7a: Floor Plans
Thursday	03	Work in class
Tuesday	<b>08</b>	Pin up 7a: Floor Plans Pin up 6a: Materials: Program and Structure Pin up 6b: Materials and the site Begin Assignment 6c: Detailed wall sections Begin Assignment 7b: Building Sections and Elevations Begin Assignment 7c: Mock-up Presentation Boards
Thursday	10	Work in class
Tuesday	<b>15</b>	<b><i>Final Review preparation pin-up</i></b> All work to date, including 7b: Sections and Elevations 7c: Mock up boards 6c: Detailed wall sections Begin Assignment 7d: Plan/Section/Axonometric Begin Assignment 7e: draft Model/draft Perspective
Thursday	17	Work in class
Tuesday	<b>22</b>	Pin up 7d: Plan/Section/Axonometric
Thursday	24	Thanksgiving break
Tuesday	<b>29</b>	Pin up 4b: Site Plan and Sections Pin-up 7e: Draft Model Begin Assignment 7f: Final Model Begin Assignment 7g: Final Perspective Rendering Begin Assignment 7h: Rendered Plans Site Plan Sections Site Sections Elevations

## ***December***

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Thursday	01	Work in class
Tuesday	<b>06</b>	Pin-up 7f: Final Models
Thursday	08	Work in class/ desk critiques
Tuesday	<b>13</b>	Work in class / desk critiques
Thursday	15	Work in class / desk critiques

### Notes:

1. Final review date to be determined
2. Schedule subject to change
3. Class discussions and handouts will accompany most assignments and give detailed information beyond what is noted in this syllabus.





These images of people wearing their folk costumes were taken by amateur photographer Augustus Sherman who worked as the Chief Registry Clerk on Ellis Island from 1892 until 1925. The people in the photographs were most likely detainees who were waiting for money, travel tickets or someone to come and collect them from the island. In 1907, the photographs were published in National Geographic, and they were also hung on the walls of the lower Manhattan headquarters of the federal Immigration Service.

## **Massachusetts College of Art and Design**

**EDAD310/520**

**Architectural Design II**

**Fall 2018**

**Section: WEBER**

Credits:

3

Meeting time:

Tuesday 1:30-4:30 PM

Thursday 1:30 – 4:30 PM 10<sup>th</sup> Floor Studios

Faculty:

Jay Weber

worldweber@gmail.com

cell: 617-888-5136

TA:

TBD

### **Course Description**

This studio course invites the student to consider the formal, ethical, social and cultural implications of building design through the lens of immigrant populations in the design of an Immigration Resource Center for the City of Boston.

The studio will use a series of exercises examine the nature of welcome, support, safety, sanctuary, privacy and community welfare. These concepts will be considered in the context of the Immigration Resource Center, the selection of which is intended to provoke discussion and allow for reflection on cultural identity, societal norms, and transition from one society to another. *The exercises will culminate in a reflection on the architect's role in the maintenance of societal norms, with an awareness of who is privileged, and who is diminished or disadvantaged by the norms.*

Class will include readings and class discussions on the social, ethical and cultural implications of form, at the scale of buildings, neighborhoods and cities.

## **Department Goals**

Students in this advanced studio are expected to:

Set example of high standards by producing thorough and graphically clear work.

Collaborate and develop collegiality by working in the studio and by participating in reviews of other studios within the department and the school.

## **Course Objectives**

Students will:

- develop their understanding of how their process (materials and methods of the design) influences the result.
- understand and apply ordering systems across scales in their work, including patterning of context.
- research and use precedents to develop ideas and link them to a larger cultural and historic context.
- begin the formation of sensitivity toward the historic, global and cultural significance of building programs and physical context.
- collaborate in the acquisition and interpretation of program, site and code data.
- consider material choices as part of an overall strategy for the building proposal with regard to site and sustainability.
- practice public speaking techniques integrated with graphic information in the oral presentation of their preliminary and final reviews.
- prepare, present and submit clear graphic representations of their design proposals.

## **Student Performance Criterion addressed:** (including number and title)

A.5 Ordering Systems (ability)	B.2 Site Design (ability)
A.6 Use of Precedents (ability)	B.3 Codes and Regulations (preliminary understanding)

## **Topical Outline** (including percentage of time in course spent on each subject)

Pre-design, Research and Conceptual Skills including observation, setting of intention (i.e. program development) and zoning/building code interpretation (25%)	Design Process/Investigative Skills including use of precedents, ordering systems and environmental and structural criteria (25%)
Design Resolution Skills, including integration of all earlier phases into a coherent design and presentation (25%)	Communication Skills, verbal, visual and written (25%)

**Prerequisites:** EDAD227/510 Architectural Design I

## **Course Content**

Students will each develop their design through prescribed exercises. The exercises will engage the student with the following aspects of the architectural profession:

1. Safety/security: For whose safety/security is the architect responsible? What are the social and ethical implications of decisions about security in the built environment?
2. Program development: setting intentions, developing criteria by which to measure the success of one's design, understanding a client's needs, understanding requirements beyond the client's stated needs (zoning and building codes, public welfare and human psychology and physiology)
3. Site Analysis: using graphic, digital and physical models
4. Using precedent: learning from and being inspired by the past, i.e. empirical evidence of prior experience, anecdotal evidence of same, conventional practice and existing standards.
5. Generation of physical form: expansive ideation and subsequent decisions about form, materials, connections, continuities, discontinuities, boundaries, separations, transparencies, etc.
6. Ordering systems: structure: hierarchy, repetition, geometry.
7. Critiquing the work: evaluating the design relative to the program, preserving what is both essential and successful, eliminating or modifying what is non-essential or unsuccessful.
8. Critiquing the process: examining one's process, appreciating that which has advanced the project and re-considering aspects that have impeded one's progress.
  - a. Consideration of two ideas related to process: 1. Expansive thinking combined with thoughtful editing and 2. iteration.
9. Approaches to modeling and documentation: representation/exploration/testing vs presentation and persuasion/influence.

Some exercises will be directly related to the particular project. Other exercises will inform the overall inquiry.

Exercises, including lists of deliverables, will be described further in handouts.

### **Course Assessment and Grading**

As noted above, 25 percent of the grade will be based on each student's communication skills, verbal, visual and written. This includes contribution to class discussions and pin ups as well as diligent attention to delivering Exercises complete and on-time. **As part of this assessment students are required to submit a digital portfolio that records the work of the semester prior to receiving a grade.**

In addition to the grades assigned by the faculty member, assessment will be in the form of reviews from peers, other faculty and guest critics. Students are expected to present work and discuss course topics in both individual meetings and group forums. Every effort will be made to let students know where they stand over the course of the semester, including providing an unofficial mid-semester assessment.

### Grading Criteria

**A** Exceptional work in all respects.

**B** Above average work, distinguished in certain but not all respects.

**C** Average. This is the lowest passing grade for graduate students and reflects meeting all the requirements of the course, without distinction. A "C-" or lower is considered a failing grade for graduate students.

**Inc.** Incomplete. A temporary designation indicating that at least 80% of the course requirements have been met and that the remaining course requirements are expected to be completed, and a permanent grade designation issued by the subsequent mid-semester. The student is responsible for having an Individual Grade Sheet completed by the appropriate faculty member and filed with the Registrar. If the student does not complete the course work, a non-passing grade will be issued.

### Plagiarism

Whenever your work incorporates someone else's research, images, words, or ideas, you must properly identify the source unless you can reasonably expect knowledgeable people to recognize it. Proper citation gives credit where it is due and enables your readers to locate sources and pursue lines of inquiry raised by your work. Students who do not comply will be penalized. For further information, see the MassArt Student Handbook or consult with the Academic Resource Center.

### **Classroom Accommodations for Students with Disabilities**

Massachusetts College of Art and Design is committed to fostering the academic, personal, and professional growth of our students. We are especially committed to ensuring that students with documented disabilities, as defined under the Americans with Disabilities Amendments Act of 2008 (ADAAA), are provided equal access to all campus resources and opportunities. If you believe you have a disability that may warrant accommodations, I urge you to contact the Academic Resource Center (ARC) at [arc@massart.edu](mailto:arc@massart.edu) or [617-879-7280](tel:617-879-7280). The ARC is located in the Tower Building, Rm 811. The Academic Resource Center provides academic support to all

matriculated MassArt students through access to academic advisors, a learning specialist, academic coaches, professional writing and subject tutors, and training on assistive technology.

### **Course Attendance**

The college-wide policy on attendance permits no more than two absences per semester for a course that meets once a week, prorated for classes that meet on a different schedule. Since we meet twice a week, five absences will cause you to fail the course. If you are more than ten minutes late to class it will count as an absence without exception.

### **Course Expectations**

1. During class time students are expected to be present and working on material specifically for this course.
2. Class will meet as a group at the beginning of class at 1:30 PM sharp.
3. Expect to meet as a group at the end of each class in your studio
4. Cellphone use, texting, Facebook, etcetera, should be avoided during class time.
5. Students are expected to be organized and follow the calendar. This course needs to cover a great deal of material, if you are unorganized and miss deadlines you will fall behind.
6. Students are expected to attend every class. More than two unexcused absences will impact your grade. Upon your fifth unexcused absence, you will not receive credit for the course.
7. If you are more than ten minutes late for class it may be counted as an absence.
8. Try your best to leave 1/2 hour open before and after each class. (Students who schedule work too close to class time often are late and unprepared)
9. If you realize that you will be late or absent, text your instructor well in advance. Failing to do so is discourteous and disrespectful to both the instructor and your classmates.
10. Please be familiar with MassArt's academic policies regarding student performance and proper crediting of images and information. The library is a useful resource for this.
11. If you have any special needs or health issues, please obtain a letter from Student Development and submit a copy to your instructor.

### **Course Materials**

Paper, drawing supplies, tracing paper, model making supplies, basswood, digital prints

### **Textbooks/Learning Resources**

#### **Technical Reference**

*International Building Code*, used in conjunction with Massachusetts Amendments, current edition. Available online.

Boston Zoning Maps and Zoning information, BRA Website.

ADA/ADAAA (Americans with Disabilities Act Amendments Act of 2008) Available online.

Francis Ching, *Building Codes Illustrated*, various editions, John Wiley and Sons, Inc. NY

Edward Allen and Joseph Iano. *The Architect's Studio Companion*. 4th ed. John Wiley and Sons, Inc. NY. 2007, print

#### **History, Theory and Criticism**

Leslie Weisman, *Discrimination by Design: A Feminist Critique of the Man-Made Environment*, 1994, Illini Books

Jan Wampler, *Open Notes for Young Architects*, 2015, Digital Publishing of Florida



E.E. Viollet-le-Duc (1814-1879), edited by M.F. Hearn, *The Architectural Theory of Viollet-le-Duc*, 1990, MIT Press  
Ben Shahn, *The Shape of Content*, 1957, Harvard University Press  
Henri Lefebvre, *The Production of Space*, 1974, Translated by Donald Nicholson-Smith, 1991 (online)  
Kevin Lynch, *What Time is this Place?* 1972, MIT Press  
Kevin Lynch, *Site Planning, 2nd Edition*, 1971, MIT Press  
Francis Ching, *Architecture, Form, Space, and Order*, 3rd Edition, 2007, John Wiley and Sons, Inc. NY  
David Orr, *The Nature of Design, Ecology, Culture and Human Intention*, 2002, Oxford University Press  
Boyer and Mitgang, *Building Community, A New Future for Architecture, Education and Practice*, 1996, Carnegie Foundation for the Advancement of Teaching.  
Steen Eiler Rasmussen, *Towns and Buildings*, and *Experiencing Architecture*, 1949 & 1959, MIT Press.

## **AD320/530-01 Architectural Design III**

Spring 2018

Studio, 3 credits, 6 hours/week

### **Instructor:**

Lawrence Cheng

[lcheng@massart.edu](mailto:lcheng@massart.edu)

### **Catalog Description**

Development of architectural design skills that address the issue of urban housing production, both locally and globally, viewed through the manipulation of development densities. The coursework includes investigation of the correlation of housing typology and building density, and the impact of density on streetscape and livability. Students explore regulations and spatial patterns towards the design of a high-density housing project in a 2.5 acre site in Dudley Square neighborhood of Boston.

### **Prerequisites**

edAD310/edAD520 Architectural Design II or equivalent

### **Goals/Learning Objectives**

#### **Collaboration**

- Observe, document and analyze the density of neighborhoods and their livability
- Introduce site and urban design skills including the impacts of location/history and regulations
- Synthesis of analysis of city, neighborhood, site, building and other collected data
- Introduce principles of programming leading to development of ideas and diagrams for the site that enhance the housing project
- Enhance a range of graphic design and verbal presentation skills using digital, drawing and data tools through design exercises

#### **Individual**

- Introduce and reinforce application of precedents and ordering systems in design diagrams and preliminary schemes
- Critical analysis of assigned readings
- Engage in a focused design project that engages open space, existing urban context and new construction leading to the completion of the project
- Graduate students are required to develop additional research to be presented to the class

#### **Student Performance Criteria**

- A.2 Design Thinking Skills (Ability)
- A.3 Investigative Skills (Ability)
- A.4 Architectural Design Skills (Ability)
- A.6 Use of Precedents (Ability)
- A.8 Cultural Diversity and Social Equity)
- B.1 Pre-Design (Ability)
- B.2 Site Design (Ability)
- B.5 Structural Systems (Understanding)

### **Course Structure**

Studio includes lectures, field trips, and graphic presentations, group and individual presentations, consultations with faculty, structured peer reviews, range of critiques

## **AD320/530-01 Architectural Design III**

Spring 2018

### **Course Content**

- Presentations on neighborhood and city scale in design, observation and scaled design exercises that develop sensitivity to context in site planning principles, the scalability / applicability of design principles (neighborhood to site to building), readings and summaries, design exercises
- Urban culture and identity discussions and applicability to design project – the design of urban spaces in association with site context (elements of safety, security, walkable neighborhoods, density, eyes on the street, relation of building to landscape, etc.)
- Discussions on “The art of arranging structures on the land and shaping the spaces between, an art linked to architecture, engineering, landscape architecture and city planning.” (Lynch)
- Class discussion/critique on weekly progress of design exercises
- Production of all components, site design, including plans, sections, elevations, models, site analyses, details and other documents that support the project including narrative and concept for open space design and connection to the local urban context

### **Outcomes / Evidence**

- Written summaries and graphic representations
- Group Site Model and analysis book of density
- Midterm and Final review boards and models
- Drawing documents, precedents, and diagrams/narratives on strategies employed in design
- Term portfolio and class booklet

### **Assessment Methods**

Review of written and graphic material for each assignment  
Group and individual critiques with invited outside professionals / faculty  
Written assessments for milestone dates  
Final Grade

### **Assessment Criteria**

Demonstration of iterative design process  
Completeness of assignment  
Completeness and rigor applied to building design and its relationship to site  
Completeness of design documents and models detailing design proposal  
Clarity of the work

### **Resources and various readings**

#### **On Reserve**

Julie Campoli and Alex MacLean. **Visualizing Density**  
a+t Research Group. **Why Density** (web based)  
ULI. **10 Principles for Livable High Density Cities**  
Eric Firley and Caroline Stahl, **The Urban Housing Handbook**  
Friederike Schneider. **Floor Plan Manual**  
Jones, Pettus, Pyatok. **Affordable Family Housing**  
Bacon, Edmund. **The Design of Cities**  
Jacobs, Jane. **The Death and Life of Great American Cities**

#### **Others**

Kostoff, Spiro. **The City Shaped: Urban Patterns and Meanings through History.**  
Lynch, Kevin: **Image of the City.**  
Rowe, Colin: **Collage City**  
Newman, Oscar: **Defensible Space**

## AD320/530-01 Architectural Design III

Spring 2018

Jacobs, Allan: **Great Streets**  
Gehl, Jan: **Cities for People**

### DEPARTMENTAL AND COLLEGE-WIDE POLICY

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- **D** Below Average. This is the lowest passing grade for undergraduate students. Students must, however, maintain a B- average in all required courses each semester to continue to progress in the department.
- **NC** No Credit. Work that does not meet the expectations of the course.
- **Inc** Incomplete. A temporary designation indicating that at least 80% of the course requirements have been met and that the remaining course requirements are expected to be completed, and that a permanent designation issued by the subsequent mid-semester. The student is responsible for having an Individual Grade Sheet completed by the appropriate faculty member and filed with the registrar. If the student does not complete the course work, a non-passing grade will be issued after the midpoint of the following semester
- **W** Withdrawn from the course. No credit earned. W grades do not appear on the student's transcript.

If a failing grade is received in a required course, students must take the course again and pass it. This rule does not apply to a student who changed majors and who did not pass requirements for a previous concentration.

## **AD320/530 Architectural Design III**

**Spring 2018**

### **Attendance**

During the first week of classes, faculty state clearly their expectations for performance and attendance, their method of recording attendance, and their expectations for makeup work and examinations. All students must attend the first day of classes for which they are registered to reserve a place in the course. If a student cannot attend because of illness or other emergency, he or she must email faculty before the first class meeting to inform the faculty member of their absence. A student who misses the first meeting of a class without notice may be dropped from the roster by the instructor. Students are expected to attend all classes. Faculty have the right to assign an "F" or "NC" grade to a student who attends less than 80 percent of the meetings of any course. There are no formally excused absences for any reason, including illness. However, a student who will miss one or two classes may be able to make up missed work, at the discretion of each instructor. If a student will miss one or two classes due to illness, he or she should notify all current faculty members by e-mail. For absences of two or more class meetings due to illness, the student may contact the director of counseling to request a leave of absence.

### **Students with Disabilities Statement**

Massachusetts College of Art and Design is committed to fostering the academic, personal, and professional growth of all our students with a variety of resources for their success. We are committed to ensuring that students with documented disabilities, as defined under the Americans with Disabilities Amendments Act of 2008 (ADAAA), are provided equal access to all campus resources and opportunities.

If you believe you have a disability that may warrant accommodations, I urge you to contact the Academic Resource Center (ARC) Tower 8th floor, at 617-879-7280 or by email at [arc@massart.edu](mailto:arc@massart.edu). The Academic Resource Center provides support to all students as well as access to a disability coordinator, academic coaches and writing specialists.

Please check with the Bookstore about the availability of digital-audio versions of the assigned texts or readings in this course. If they are not available, or if you need additional materials in the digital-audio format, please contact the Academic Resource Center to assist you. It can take three (3) to four (4) weeks to secure digital-audio materials that are not available through our library network.

### **Plagiarism**

In creative work, plagiarism is the inappropriate and unethical representation of another's work as one's own. In those instances where a significant portion of a creative work is intentionally "appropriated," plagiarism is the failure to note, orally or in writing, the source of the appropriation. In expository or academic writing, whenever your work incorporates someone else's research, images, words, or ideas, you must properly identify the source unless you can reasonably expect knowledgeable people to recognize it. Proper citation gives credit where it is due and enables your readers to locate sources and pursue lines of inquiry raised by your paper. Students who do not comply may be penalized.

**edAD 320/530-02**

**Architectural Design III**

**Massachusetts College of Art and Design / Department of  
Architecture**

3 credits / Spring 2018

Tues 1:30pm-4:30pm DMC D109 and

Thursday 1:30-4:30 in Tower, Studio or Room T201

**Tamara Roy**

**Email:** troy@massart.edu

**Phone:**

**Office Hours:** By request

**Prerequisites**

Previous registration in Design II

## 21<sup>st</sup> Century Village

*"Good designers must always be avant-gardists, always one step ahead of the times. They should—and must—question everything generally thought to be obvious. They must have an intuition for people's changing attitudes. For the reality in which they live, for their dreams, their desires, their worries, their needs, their living habits. They must also be able to assess realistically the opportunities and bounds of technology." – Dieter Rams*

### COURSE DESCRIPTION

This undergraduate/graduate level design studio will focus on the design of a mixed use urban project that will include housing, retail, cultural programs, open space, and parking on a single city-owned block in Dudley Square. Research into the diverse desires and affordability levels of workforce millennials, seniors, and artists will be developed into a housing and common space program that will drive the density on the site, while the other mix of uses will be derived from conversations with various groups interested in finding a permanent place there.

The site is a city-owned block called the 'Blair Site' which will be put out for developer bids in the next few months. Its area is just under 1 acre, located in the heart of Dudley Square in Roxbury. The historical context of development in Roxbury will be discussed. Guest visitors to the studio will include local and minority developers, architects, and business owners who can reflect on the forces, needs, challenges, and opportunities inherent in the site and neighborhood. Boston city agency representatives will be invited to present the goals of Imagine Boston and Resilient Boston as they relate to Dudley Square's future growth.

The first 5 weeks of the studio are research-based, while the next 4 are individually design-focused. After that, the professor will combine individual projects into teams that will continue to the final review. The goal of this process is to expose students to design team collaboration, build the dexterity needed to be a strong team member, and have students teach each other design, technical and representational skills.

This design studio consists of a complex, multi-storied program on an urban site, in which students integrate a site analysis with a historical context, public space, and the development of sustainable systems integration relevant for planning neighborhoods and communities. Students analyze urban and historical site and building precedents, select and design systems that support their project concept, site and proposed uses, develop sustainable building envelope systems, and hone graphic design skills in their presentations.

## **GENERAL COURSE SCHEDULE**

### **SITE RESEARCH, 2 weeks**

Students will visit the site and build site models at 2 scales, as well as complete a thorough site analysis as a group. Areas to be studied include site history, transit connectivity, area retail and restaurants, cultural programs, neighborhood scale, solar orientation, view corridors, etc.

Guest visiting lecturers, to be interspersed with class pin-up will include:

- Richard Taylor, local developer and teacher of Real Estate at Suffolk University
- Black Market entrepreneur, Kai Grant

### **DEMOGRAPHIC & PROGRAMMATIC RESEARCH, 3 weeks**

Students will learn how to do a market study of comparable apartments around the site and in surrounding neighborhoods, including mapping locations, rents, sizes, and amenities. Through mini-lectures and interviews with millennials, seniors and artists, students will prepare a needs and desires profile of each of the user groups. The studio will also research innovative local, national, and international housing examples.

Guest visiting lecturers and tours, to be interspersed with class pin-up will include:

- Barry Bluestone, author of the Greater Boston Report Card and the term, 21<sup>st</sup> Century Village
- Architect of senior housing from Dimella Shaffer
- BPDA representative, presenting goals of Imagine and Resilient Boston

**Interim Review, week 6** – Site, demographic, and programmatic research is collated into an 11x17 class research booklet and presented to visiting critics.

### **INDIVIDUAL DESIGN WORK, 4 weeks**

Students will be assigned a density target by the professor, from which they will create their square foot programs, based on their research of mixed uses and housing types. By the end of the month students will have a site master plan that includes some type of public indoor/outdoor open space, program matrix, building concept, and building massing, as well as reference images for the aesthetic approach to the architecture. Throughout this section, the 3-hour class time will be divided into group discussion and desk crits, to provide both individual and group feedback on each student's work.

Guest visiting lecturers, to be interspersed with class pin-up and desk crits will include:

- Matt Edlen, local developer will make a tour of Troy Boston, by Gerding Edlen
- Dream Collaborative, Boston Minority Owned Architecture firm

**TEAM DESIGN WORK, until end of term (approx. 5 weeks)**

Teams of 2 and 3 students will complete the project work for the design studio. The professor will thoughtfully combine individual projects to emphasize strengths and minimize weaknesses, while taking into consideration complementary personalities and work styles. By the end of the term, teams will have projects that include a refined site master plan, program matrix, building concept and massing, plans, and illustrative diagrams. They will also develop a presentation for the final review that will be mocked up in class. Examples will be provided for graphic clarity.

**FINAL REVIEW**

Guest critics, including public policy experts from the Mayors' office, housing developers, and architects who design housing will be invited. Professor will provide a list of mandatory presentation materials.

STUDENT BOOKLET COMPILED, before end of jury week

The class will be responsible for gathering the presentation materials for each final project and compiling them into the Design half of the report.

**COURSE GOALS & OBJECTIVES**

- Students learn to follow a logical sequence of design that can serve their future practice, moving from an understanding of the site, to the program, to the larger political/social/cultural/economic context, and finally to the testing and combining of various options to reach a satisfactory design solution.
- Students will be exposed to design team collaboration, building the skills needed to be a strong team member, such as visual and verbal communication, listening and observation, and workflow management
- Site analysis will be expanded beyond simple observations of the physical condition to include:
  - Meetings with community members,
  - professionals involved with the program context, and
  - work with other collaborators to understand site and building issues and develop design program.
- Students will develop graphic strategies for communicating their research and design work in simple and clear ways understandable to laypeople and professionals.
- Basic rules of program typologies such as parking, housing, retail, etc. will be reviewed and explained.
- Sustainability – Students will diagram and apply sustainable principles to their project designs in response to climate and energy conservation.
- The creative design of multi-functional public space will be stressed as a key component to the building design.
- Structural Systems – Students select systems that support their project concept, proposed uses and sustainable goals
- Students will also consider material choice as part of an overall strategy for the building proposal with regard to site and sustainability.



### STUDENT PERFORMANCE CRITERIA

- A. 2 Design Thinking Skills (Ability)
- A. 3 Investigative Skills (Ability)
- A. 4 Architectural Design Skills (Ability)
- A.6 Use of Precedents (Ability)
- A. 8 Cultural Diversity and Social Equity (Understanding)
- B.1 Pre Design (Ability)
- B. 2 Site Design (Ability)
- B.3 Codes and Regulations (Ability)
- B.4 Technical Documentation (Ability)
- B.5 Structural Systems (Ability)
- B.6 Environmental Systems (Ability)
- B.7 Building Envelope Systems and Assemblies (Understanding)
- B.8 Building Materials and Assemblies (Understanding)
- C.2 Integrated Evaluations (Ability)

### GRADING CRITERIA

**Class participation** is the number one requirement for success in this course. The professor expects attendance at every class unless there is a doctor's note, and for students to arrive prepared for discussions, desk crits, or pin ups as is outlined in the above course description as well as any additional requirements that have been discussed as the class progresses. Each student must also engage with their peers to foster constructive criticism, knowledge-sharing, and improvement of design arguments.

In addition, research and design work will be evaluated in the following proportions:

- 1) Research effort – work outside of class time that is necessary for all exercises, including but not limited to site observation, market tours, neighborhood interviews, etc. (33%)
- 2) Individual project design, including design options and evaluation: (33 %)
- 3) Team project design, including collaboration effort, graphic presentation of principles and developed designs: (33 %)

### RESOURCES

Resources will be provided as the course progresses, based on individual students' interests, needs, and focus.

## DEPARTMENTAL AND COLLEGE-WIDE POLICY

Grades are defined as follows:

- **A** Exceptional work in all respects.
- **B** Above average work, distinguished in certain but not all respects.
- **C** Average. This is the lowest passing grade for graduate students and a C- or lower is considered a failing grade. Students must, however, maintain a B- average in all required courses each semester to continue to progress.
- **D** Below Average. This is the lowest passing grade for undergraduate students. Students must, however, maintain a B- average in all required courses each semester to continue to progress in the department.
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- **W** Withdrawn from the course. No credit earned. W grades do not appear on the student's transcript.

If a failing grade is received in a required course, students must take the course again and pass it. This rule does not apply to a student who changed majors and who did not pass requirements for a previous concentration.

Syllabus

Department of Architecture

UnderGrad/ Graduate Requirement

Spring 2018

**Attendance**

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## Architectural Design VI

### Massachusetts College of Art and Design / Department of Architecture

Tower Building, Room 629

Monday and Thursday 1:30pm-6:30pm

Start date 09/06/18, end date 12/21/18

**Faculty:** Tamara Roy

**Email:** troy@massart.edu

**Office Hours:** By request

**TA:** Wandy Pascoal

**Email:** wpascoal@massart.edu

## Housing Yourself

*"Boston's ability to attract talent and its economic vitality are certainly connected to the availability of affordable housing; this argument is well-reasoned and few would disagree. But this is really the first time I have heard anyone interested in researching and finding solutions for student and faculty housing, seen through an equity lens." – Pam Ettinger, President of Bunker Hill Community College*

### COURSE DESCRIPTION

This graduate level design studio will focus on the design of an affordable mixed use urban housing master plan that will attempt to address the complex issues surrounding the production of state university student housing. The first part of the studio is research-based while the second part is design-focused. Final reviews will pitch the students' proposals to state officials who could potentially turn their work into real projects.

### PROGRAM, SITE, GOALS

Many upper class, graduate, and continuing education students enrolled in State Colleges cannot afford the cost of living in Boston and are forced into long commutes while holding part or full-time jobs, rooming with friends or family, or even verging on homelessness. At the MassArt faculty 5-10 year Strategic Planning meeting last Spring, many professors voiced this issue as a crisis and asked for ideas that could provide lower cost housing that is easily accessible by transit to vulnerable students.

The site for this semester's inquiry is the entire campus of Bunker Hill Community College (BHCC), as it is proximate to the Orange Line and connects directly to Ruggles Station near both MassArt and Roxbury Community College. Students will study, map, and model the existing campus, looking for areas where new buildings or additions could be added. They will study other urban campuses in Boston to discover their underlying principles that contribute to their identity, such as history, open spaces, interior gathering places, urban form, dining options, housing, and academic building organization. They will also gather similar information on BHCC with an eye toward what is missing and how the campus can be densified and improved.

The neighborhood around BHCC is also undergoing transformation, as Boston seeks to redesign the streets around the campus to be more pedestrian-friendly, creating new development blocks at its perimeter. Transportation improvements at Rutherford Avenue and Sullivan Square by MassDOT will be incorporated into the student work,

Students will do the following:

- document the need for (and lack of) affordable housing alternatives
- develop various housing types that could serve State students
- study the Bunker Hill campus, existing characteristics and opportunities for growth
- propose several scenarios varying in density, uses, funding structures
- consider prefabricated housing to lower initial costs
- develop aspirational visions that could become real projects in the future.

Throughout this course, the 5-hour class time will be divided into group discussion about the exercises and desk crits, to provide both individual and group feedback on each student's work.

## **GENERAL COURSE SCHEDULE**

### **Research and prototype design, first 4 weeks**

#### Week 1 Your Experience

- Exercise 1: document how you found your apartment; measure and draw your apartment
- Exercise 2: photograph, map, and make a video timeline of your typical day
- Exercise 3: design the smallest unit you would consider living in.

Week 2, 3 Boston Urban Campus and Student Housing Research – MassArt, Northeastern, MIT, Harvard, Suffolk, Emerson, Roxbury CC, will be looked at through the lens of identity, master plan, open space, etc.

- Exercise 1: Students will visit each campus, talk to students, and document the experience
- Exercise 2: collect and assemble information – campus maps, housing and dining offerings, character/identity, etc. – topics to be determined in class
- Exercise 3: Info graphics - find compelling ways of diagramming and presenting information. Present to the class.

#### Week 4 Design a utopic campus

- Exercise 1: Write a 2-paragraph essay where you envision your ideal urban campus
- Exercise 2: sketch, diagram, and model the ideal urban campus from exercise 1

### **Master Plan Studies, next 5 weeks**

#### Week 5, 6 Site Visit and Analysis of Bunker Hill Community College

- Exercise 1: Class site visit, document subjective responses
- Exercise 2: Hold more detailed interviews with students, faculty, staff, administration; document what is said

- Exercise 3: Write a 2-paragraph essay on what is missing and how Bunker Hill CC could evolve
- Exercise 4: Coordinate and assemble city plans for the areas surrounding the site into one master site plan
- Exercise 5: Mapping exercise – class creates list of critical filters and maps them out
- Exercise 6: Site base model – group exercise

Week 7, 8, 9 Density studies – how could BHCC transform? Where are the best sites for student housing? What other programs could the BHCC have (academic, dining, commons, etc) that could create a strong sense of community and where might they want to be located? How do the physical and political characteristics surrounding the campus affect where density is located?

- Exercise 1: FAR - what is FAR and how much density can this site take? Clay studies of FAR 3, 5, 7, 9...max
- Exercise 2: Density options shown in colored physical program models
- Exercise 3: Density option hybrids
- Exercise 4: Best 3 density options, described in physical model and sketchup
- Exercise 5: Selling the ideas – perspectives, axons, storytelling narratives, 'wow' images

MASTER PLAN REVIEW: Visiting critics and MassArt faculty will review student presentations.

### **BUILDING DESIGN, rest of term**

Students choose a portion of the Bunker Hill CC site and implement a mixed use housing program.

Week 10 Concept + Parti

- Exercise 1: 3 concepts for student housing
- Exercise 2: 1 organization diagram for each concept option

Week 11 Planning & Unit Typologies

- Exercise 1: dimensional studies and site visits of student housing types, including communal bath, semi-suites, apartments and micro apartments, co-living models, etc.
- Exercise 2: prefabrication factors
- Exercise 2: studies of various typologies within the master plan building envelopes using prefab solutions

Week 12, 13 Image of exterior design & common spaces

- Exercise 1: Students gather inspirational reference images
- Exercise 2: Using various design tools, students develop concepts into perspective images of building designs

FINAL REVIEW: Presentation of master planning and building designs. Professor will provide a list of mandatory presentation materials.

Week 14: STUDENT BOOKLET COMPILED

The class will be responsible for gathering and distilling all presentation materials for each final project and compiling them into a booklet on the class google drive.

## **COURSE GOALS & OBJECTIVES**

- Students learn to follow a logical sequence of design that can serve their future practice, moving from an understanding of the site, to the program, to the larger political/social/cultural/economic context, and finally to the testing and combining of various options to reach satisfactory design solutions.
- Students will become fluid in creating options, rather than one 'ideal' solution (the '3 option' rule).
- Students will develop strategies and design principles for use in master planning large sites, including methods of breaking down the design problem into manageable tasks that are synergistic and cumulative.
- Students will be exposed to design team collaboration, building the skills needed to be a strong team member, such as visual and verbal communication, listening and observation, and workflow management
- Site analysis will be expanded beyond simple observations of the physical condition to include:
  - Meetings with community members and allied professionals involved with the program context, and
  - work with other collaborators to understand site and building issues and develop a design program.
- Students will develop graphic strategies for communicating their research and design work in simple and clear ways understandable to laypeople and professionals.
- Basic rules of program typologies such as parking, housing, retail, etc. will be reviewed and explained.
- Sustainability – Students will diagram and apply sustainable principles to their project designs in response to climate and energy conservation.
- The creative design of multi-functional public space will be stressed as a key component to the building design.
- Structural Systems – Students select systems that support their project concept, proposed uses and sustainable goals

## **STUDENT PERFORMANCE CRITERIA**

- A. 2 Design Thinking Skills (Ability)
- A. 3 Investigative Skills (Ability)
- A. 4 Architectural Design Skills (Ability)
- A.6 Use of Precedents (Ability)
- A. 8 Cultural Diversity and Social Equity (Understanding)
- B.1 Pre Design (Ability)
- B. 2 Site Design (Ability)
- B.3 Codes and Regulations (Ability)
- B.4 Technical Documentation (Ability)
- B.5 Structural Systems (Ability)
- B.6 Environmental Systems (Ability)
- B.7 Building Envelope Systems and Assemblies (Understanding)
- B.8 Building Materials and Assemblies (Understanding)
- C.2 Integrated Evaluations (Ability)

## GRADING CRITERIA

**Class participation** is the number one requirement for success in this course. The professor expects attendance at every class unless there is a doctor's note, and for students to arrive prepared for discussions, desk crits, or pin ups as is outlined in the above course description as well as any additional requirements that have been discussed as the class progresses. Each student must also engage with their peers to foster constructive criticism, knowledge-sharing, and improvement of design arguments.

Equally important, research and design work will be evaluated in the following proportions:

- 1) Research effort – work outside of class time that is necessary for all exercises, including but not limited to site observation, market tours, neighborhood interviews, etc. (33%)
- 2) Individual project design, including design options and evaluation: (33 %)
- 3) Team work, including collaboration effort, graphic presentation of principles and developed designs: (33%)

## RESOURCES

Resources will be provided as the course progresses, based on individual students' interests, needs, and focus.



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- **W** Withdrawn from the course. No credit earned. W grades do not appear on the student's transcript.

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**Syllabus**

Department of Architecture

Graduate Requirement

**Fall 2018**

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**Department of Architecture**

**EDAD527 (grad) EDAD317 (undergraduate)**

Credits:

Meeting Time:

Faculty:

Office:

Office Hours:

**Structures II: Steel and Concrete** fall 2018

3

Monday 10:00 – 1:00 T405

Meg Hickey. 617-879-7670

[mhickey@massart.edu](mailto:mhickey@massart.edu)

T718

Monday and Tuesday 3:00 - 5:00

**Course Description** Continues structural design from wooden buildings to larger buildings using steel and concrete. Computations for compound beam and column sections and long span trusses in wood or steel are covered. Introduces concrete building design including computations for safe selection of beams, joists, slabs, and columns.

**Prerequisite** EDAD227/517 Structures 1 or instructor permission

**Course Goals**

- Develop a sense for when extraordinary loads require non-standard sizes or compound cross sections.
- Begin to recognize when steel is appropriate for structure and calculate sizes for applied steel construction.
- Develop a sense for what sizes of structural parts are safe in customary steel applications.
- Recognize structural possibilities for long span roofs and trusses using steel or wood.
- Develop ability to solve trusses in application.
- Introduce cementitious materials and concrete and understand sizing of concrete building components.
- **NAAB Student Performance Criteria** (Based on 2014 Conditions for Accreditation). *Note that Structures I+II together cover this material in sequence.*

**B.5 Structural Systems:** Ability to demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system.

**Course and Class Structure** Two half semester sections, preceding midterm and final exams. 3 hour classes weekly with structural calculation (~1.75 hours), building methods (~1.25 hours).

**Section 1**

- Review shear and bending moment diagrams for sizing wood or steel beams.
- Introduce estimation of beam deflection and use of standard beam tables.
- Present architectural metals and US steel system; use of steel tables and terminology.
- Demonstrate application of beam and column sizing in real building context.
- Introduce centroid and section modulus  $S = bd^2/6$  and moment of inertia  $I = bd^3/12$ .
- Introduce and apply compound section steel beams and columns.
- Present sizing of steel columns using radius of gyration  $r = \sqrt{I/A}$  and slenderness ratio  $Kl/r$ .
- Present implications for design of buildings that meet fire safety regulations.
- Set and review in-class problems, and mid-term exam preceded by group study session.

**Section2**

- Show types of trusses and space frames, introduce solution of basic truss reaction forces.
- Introduce solution of truss member stresses, and sizing of members for wood or steel trusses.
- Apply truss solution in real context including estimation of panel point loads.
- Present long span "flat" roofing methods.
- Introduce cementitious materials and concrete.
- Present sizing of beams, joists, slabs and columns of reinforced concrete.
- Present calculation of basic foundation methods for small and larger buildings.
- Set and review in-class problems, and final exam preceded by group study session.

**Ongoing Assessments** Students observe and participate in demonstrations and presentations, they help each other solve in-class problems and complete homework assignments after class. Group review of structural calculation homework is followed by individual tutoring as needed. After students complete mid-term exam any misunderstandings identified during grading are addressed.

**Contributions to Grading** Three hour, in-class mid-term exam, structural calculation and building methods. No multiple choice or true/false questions, students hand in all calculations. (50%).

Three hour, in-class final exam, structural calculation and building methods. No multiple choice or true/false questions, students hand in all calculations.(50%)

**Assessment Criteria** Logical approach and accuracy of calculations; types of errors taken into account (copy errors, calculation errors, logic errors, math errors); quality of comments and questions in class. Accurate and logical written responses to building methods exam questions.

**Resources** Custom teaching gadgets and software. Extensive slide collection of building practices around the world. Notes from texts including: Simplified Engineering for Architects and Builders, Harry Parker, 5th and Ambrose & Tripeny 10th editions, Wiley, 1975 and 2005; Fundamentals of Building Construction by E. Allen and J. Iano, Wiley, 4th edition, 2007.

## **COURSE CALENDAR**

**Week 1** Review of Structures I. Complicated beam computations, calculation of maximum moment, sizing wood beams with  $S = M/F_b$  and columns with slenderness ratio  $l/d$ . introduce beam case load/shear/deflection tables and horizontal and vertical shear. Assign beam case problems.

**Week 2** Review beam case problems. Deflection: symmetrical superposition, asymmetrical approximation. Special beam/joist load problems. Introduce steel tables and terminology. Architectural metals: cast iron, wrought iron, stainless steel, brass, bronze, copper, zinc. Assign extra load beam problem.

**Week 3** Review extra load problem. Introduce centroid calculations, compound sections. Calculation of moment of inertia. Show Steel buildings. Assign section modulus  $S$  and moment of inertia  $I$  calculations for applied wood problem.

**Week 4** Review  $S$  and  $I$  problems. Introduce steel beam problems. Show, steel construction details wall/ floor/ roof systems. Assign steel beam practice problems.

**Week 5** Review steel beam problems. Introduce steel column problems,  $kl/r$  tables, radius of gyration. Assign steel column practice problems.

**Week 6** Review steel column problems. Applied steel column and beam problems. Exam review session.

**Week 7** Final Exam.

**Week 8** Review exam. Introduce compound steel sections for beams and columns. Assign compound section problems.

**Week 9** Introduce vector problems and reaction forces for simple triangulated structures. Introduce bar joists and flat roof design. Assign vector resultant practice problems.

**Week 10** Introduce basic trusses and method of joints for truss solution. Introduce foundation design and calculations. Assign truss sizing practice problems.

**Week 11** Introduce sizing of truss members. Applied truss problems. Show the variety of trusses in buildings, wood and steel. Assign applied truss.

**Week 12** Review applied truss. Introduce reinforced concrete beams, continuous and end span design. Concrete components: lime and gypsum, cement. Assign concrete beam design.

**Week 13** Review beam design. Concrete slabs. Concrete construction methods. Show concrete buildings. Assign slab design.

**Week 14** Review slab design. Concrete columns, in series, whole buildings. Fire safety in building design. Exam review session.

**Week 15** Final exam. Studio assistance on design course structures.

Note: Due to snow days or other unforeseen events topics or exams may occur in a different week than shown here.

Grade is based on midterm, 50%, and final exam, 50%.

Attendance: student is dropped from class after 3 unexcused absences.

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**EDAD 367/567**

**Building Operating Systems spring 2019**

Credits: 3  
Meeting time: Monday 10:00 –1:00 Room T201  
Faculty: Keith Giamportone  
[kgiamportone@MassArt.edu](mailto:kgiamportone@MassArt.edu)  
Office; T612  
Office Hours: Monday 1:00-1:30  
Cell: 919-616-4550  
TA: Lindsay Tibbets [ltibbets@massart.edu](mailto:ltibbets@massart.edu)

**Catalog Description**

Mechanical, electrical, plumbing, and communication systems for domestic to tall buildings are introduced in the context of declining energy supplies and increasing global pollution. Lower energy systems for heating, ventilating, air-conditioning, plumbing, and lighting for new and retro-fit applications are contrasted with traditional systems, and selections of architectural design and landscape elements that support more sustainable systems are covered. Students estimate heating, cooling, ventilating, lighting, electrical, elevator, sewage and pure water loads and gain some understanding of how handling these loads affects the space and layout of buildings, and what sort of collaboration with engineers is to be expected. The principles of operation and code standards for the various environmental control systems are explained, together with relative costs and expected maintenance requirements. Issues of energy source availability, safety, pollution, storage and delivery are discussed from a local and global perspective. Field trips to local "green" buildings demonstrate the use of currently available lower energy systems.

**Prerequisites:** EDAD 317 Structures II for undergraduates, EDAD 527 for graduates

**Course Goals**

Give students a realistic idea of the space requirements and layout of building systems, and how these can be integrated into the total building.

- Prepare architecture students for collaboration with engineers on building operating systems.
- Encourage students to promote more sustainable solutions in their designs.
- Present the necessary mathematics and physics of mechanical, electrical, plumbing and acoustic systems in such a way that visually oriented students are comfortable using it.
- Provide technical backup to concurrent architectural design course.
- **NAAB Student Performance Criteria** (Based on 2014 Conditions for Accreditation)
  - **B.6 Environmental Systems: Ability** to demonstrate the principles of environmental systems' design, how design criteria can vary by geographic region, and the tools used for performance assessment. This demonstration must include active and passive heating and cooling, solar geometry, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.
  - **B.7 Building Envelope Systems and Assemblies:** Understanding of the basic principles involved in the appropriate selection and application of building envelope systems relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources. **(Preliminary Understanding)**
  - **B.9 Building Service Systems: Understanding** of the basic principles and appropriate application and performance of building service systems, including lighting, mechanical, plumbing, electrical, communication, vertical transportation, security, and fire protection systems.

**Course and Class Structure** Two half-semester sections, preceding midterm and final exams. Weekly 3 hour classes with theory and practice of different building systems through lectures, group and individual projects, field trips, and in class exercises.

**Course Content**

- Fuel/energy availability, safety, pollution, storage and delivery from a local and global perspective, including newer sources such as photo-voltaic, geothermal and biomass.
- Principles of operation for the various systems; relative costs and expected maintenance requirements.
- Estimation of heating, cooling, ventilating, lighting, plumbing and elevator loads: how handling these loads affects the space and layout of buildings and what is required for timely collaboration with engineers.
- Codes, certifications and government incentives which affect mechanical systems design.
- Calculation homework.
- Field trips to local "green" buildings.
- Research paper on chosen aspect of sustainable mechanical systems.
- Midterm and final exams preceded by group study sessions.

**Ongoing Assessments:** Students observe and participate in demonstrations and presentations, they help each other solve in-class problems and complete homework assignments after class. Group review of calculation homework is followed by individual tutoring as needed. After students complete mid-term exam any misunderstandings identified during grading are addressed.

### **Contributions to Grading**

Three hour, in-class mid-term exam, calculation and system methods. No multiple choice or true/false questions, students hand in all calculations. (40%)

Three hour, in-class final exam, structural calculation and building methods. No multiple choice or true/false questions, students hand in all calculations (40%)

Individual projects 20%

**Assessment Criteria:** Logical approach and accuracy of calculations; types of errors (copy errors, calculation errors, logic errors, math errors); quality of comments and questions in class. Accurate and logical written responses to building methods exam questions.

### **Resources**

Northeast Sustainable Energy Association publications and conference, local "green" buildings, MassArt Library, readings from a variety of sources, and "The Architect's Studio Companion: Rules of Thumb for Preliminary Design," E. Allen & J. Iano, Wiley; "Mechanical & Electrical Equipment for Buildings" B. Stein, 9th edition, Wiley; "Heating, Cooling & Lighting," N. Lechner, Wiley. Energy estimation software.

### **Weekly Schedule**

#### **Monday Jan 28**

1. Introduce sorts of building operating systems course covers. Commence with Principles of plumbing: Water supply systems: rural, metropolitan: wells, pumps, reservoirs. New developments in water scarce locations, global issues. Issues of purity, testing. Show water supply diagrams. Lecture on bathroom design space considerations and products. Assign bathroom product research.

#### **Monday Feb 4**

2. Lecture on sewage systems: rural, and metropolitan: Cesspools, septic tanks, sewage treatment facilities, historic methods and new developments, global differences. Demonstrate materials. Explain fixture units, code considerations. Show plumbing tree diagrams. Do in class bathroom plan exercise, review. Show bathroom detail drawings. Assign bathroom design homework.

#### **Monday Feb 11**

3. Discuss new and alternate toilet systems and urine collection for fertilization of feed crops: Composting toilets, foam toilets. Show systems for large applications, Show systems for large applications, typical plumbing diagrams, design for special applications, hospitals, handicap. Review bathroom design homework. Assign final production of bathroom presentation.

#### **Monday Feb 11**

4. Heat transfer lecture: transmission through building envelope, infiltration, and ventilation losses. Calculation of heat loss. Btu and energy units, degree days, U and R values.  $U=1/R$  calculations for envelope assemblies. Insulation methods. Thermal bridge calculations. Thermal break designs for high conduction material. Show images of different wall assemblies. New insulation vs retrofit methods of insulation. Computer tool demonstration of heat transfer tools. Assign heat transfer calculations.

#### **Monday Feb 18**

NO CLASS - President's Day

#### **Monday Feb 25**

5. Lecture on domestic heat systems, fuels, delivery and storage space requirements: Furnaces and boilers, coal, gas, propane, oil, wood chips. Heat delivery methods air, hot water, steam. Electric heat. Ducts, radiators, baseboard delivery. Gravity vs forced systems. Terminology. How each choice affects the design of the building and site. New methods with solar and backup system. Show images of various systems, discuss advantages and disadvantages, and how location affects choice of system: rural vs urban, local temperature conditions. Systems that can adapt to air conditioning. Go over homework calculations.

Monday March 4  
NO CLASS - SPRING BREAK

**Monday March 11**

6. Solar heating, taking advantage of solar orientation where possible:  
Variations on *Trombe Walls*. Using water as a sun reflector. Accidental reflection loads. Solar storage methods. Sun Spaces. How site design can help with climate control. Solar hot water and PVC methods, maintenance issues. Assign research *Trombe Wall* and reflection applications, solar methods. Finding true south on site. Governmental inducements for solar. Reduction of air infiltration vs solar gain. Insulation. Using solar data. Assign use of solar data for a particular site.

**Monday March 18**

7. Mid-term Exam

**Monday Mar 25**

8. Principles of electricity, circuit design:  
Terminology: current amps, voltage volts and resistance ohms; power in watts and KWH.  $E=IR$ ,  $P=IE$  variations. Series vs parallel. More sophisticated circuits. Circuit calculations. Shock hazards, short circuit. Conduction materials and insulator materials.

**Monday Apr 1**

9. Wiring principles:  
Tools and hardware and equipment. Wire size requirements. Old/new methods. Wires prohibited by code. Show how to do a wiring plan. Assign a wiring plan.

**Monday Apr 8**

10. Lighting:  
Light units, standards for light levels for different tasks. Inverse square law for source intensity to surface illumination. Demonstrate with source and light meter. Color composition of light. Demonstration of complementary light shadows. Show of interior and exterior lighting.

Assign each student to bring in 2 examples of what they consider to be very good or very bad lighting.

Monday Apr 15  
NO CLASS - PATRIOT'S DAY

**Wednesday April 17 ( Monday Class Schedule )**

11. Review student examples of good and bad lighting:  
Types and chemical composition of different sorts of light, bulbs, tubes, strips. Modern trends in energy efficient sources. Electrical hazards from lights. Assign lighting plan.

**Monday Apr 22**

12. HVAC:  
Comfort range for temperature, ventilation air speed, humidity. Air purity issues, prevention of mold. Types of systems, zones, reheat/re-cool, recirculation, volume damper, dual air and individual control. Air conditioning systems. Ground source heat pumps vertical and horizontal.

**Monday April 29**

13. Communication design:  
Home and large building systems, fire detection and alarms, Acoustic design of theaters with augmented sound, projection and lighting systems. Mathematics of sound, sound measurement, decibel logarithmic scale, noise reduction, sound absorption, echoes, focus and reflection.  
Assign acoustic calculations.

**Monday May 6**

14. Vertical transport:  
Elevators, escalators, space requirements. Code issues. Variations for different uses.

Review for Final Exam

**May 13**

15. Final exam



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### Plagiarism

In creative work, plagiarism is the inappropriate and unethical representation of another's work as one's own. In those instances where a significant portion of a creative work is intentionally "appropriated," plagiarism is the failure to note, orally or in writing, the source of the appropriation. In expository or academic writing, whenever your work incorporates someone else's research, images, words, or ideas, you must properly identify the source unless you can reasonably expect knowledgeable people to recognize it. Proper citation gives credit where it is due and enables your readers to locate sources and pursue lines of inquiry raised by your paper. Students who do not comply may be penalized.

**Department of Architecture**

**EDAD577 (grad) EDAD427 (ug, elective)**

Credits:

Meeting Time:

Faculty:

Office:

Office Hours:

**Structures Overview, fall 2018**

3

Tuesday 10:00 – 1:00 T405

Meg Hickey. 617-879-7670

[mhickey@massart.edu](mailto:mhickey@massart.edu)

T718

Monday and Tuesday 3:00 - 5:00

**Course Description** Designed for students who require a comprehensive overview of current structural methods in the United States. Covers structural examples and calculations for reinforced concrete, steel, wood frame and cross laminated timber including long span structures. Students accustomed to a masonry building tradition are introduced to the possibilities of wood and steel and related calculation methods. Computations are presented in typical applied context. Graduate course required for T1 students, and T2 students by advising.

Prerequisites:

EDAD227, EDAD317, for undergraduates. EDAD517, EDAD527 for T1 graduate students

**Course Goals**

- Develop a professional sense for what sizes of structural parts are safe in customary applications.
- Recognize the differences between wood/steel frame and masonry building environments and the appearance and function of buildings made from materials that are good in both tension and compression as opposed to those that are only good in compression, through visual examples.
- Understand the necessary mathematics and physics of building, and basic statics.
- Understand how to apply structural calculations in design, provide technical backup to concurrent design projects.
- **NAAB Student Performance Criteria** (Based on 2014 Conditions for Accreditation). *Note that Structures I+II together cover this material in sequence.*

**B.5 Structural Systems:** Ability to demonstrate the basic principles of structural systems and their ability to withstand gravitational, seismic, and lateral forces, as well as the selection and application of the appropriate structural system.

**Course and Class Structure** Two half semester sections, preceding midterm and final exams. weekly 3 hour classes with structural calculation (~2 hours), wood, steel, masonry, concrete building methods (~1 hour). weekly, 3 hours.

**Section 1**

- Present historical development of current structural material and methods.
- Review stress  $F=P/A$  and elastic deformations  $e=PL/AE$  in practical applications, tension and compression in buildings.
- Review statics,  $\sum F=0$ ,  $\sum M=0$  with practical application to beams. Review vectors.
- Review US Lumber system; types of fasteners; types of building framing.
- Review steel construction and connection methods.
- Review moment of inertia and centroid calculations.
- Use section modulus  $S=M/F_b$  and slenderness ratio  $l/d$  or  $Kl/r$  for selection of wood and steel beams and columns.
- Review masonry and concrete construction.
- Lead group reviews of in-class and homework calculations.
- Set in-class problems, homework, and mid-term exam preceded by group study session.

**Section2**

- Introduce reinforced concrete foundation design.
- Review truss design and calculation with methods of joints and bars.
- Review long span trusses and present 3 hinged arches.
- Present typical structural systems.
- Present design for wind resistance.
- Present design for earthquake resistance.
- Lead group reviews of in-class and homework calculations.
- Set and review in-class problems, homework, and final exam preceded by group study session.

**Ongoing Assessments** Students help each other solve in-class problems and complete homework assignments after class. Group review of structural calculation homework is followed by individual tutoring as needed. After students complete mid-term exam any misunderstandings identified during grading are addressed.

### **Contributions to Grading**

Three hour, in-class mid-term exam, structural calculation and building methods. No multiple choice or true/false questions, students hand in all calculations. (50%). Three hour, in-class final exam, structural calculation and building methods. No multiple choice or true/false questions, students hand in all calculations. (50%).

**Assessment Criteria** Logical approach and accuracy of calculations; types of errors taken into consideration (copy errors, calculation errors, logic errors, math errors); Accurate and logical written responses to building methods exam questions.

**Resources** Extensive slide collection of building practices around the world.

Notes and tables from texts including: Simplified Engineering for Architects and Builders, Harry Parker, 5th and Ambrose & Tripeny 10th editions, Wiley, 1975 and 2005; Fundamentals of Building Construction by E. Allen and J. Iano, Wiley, 4th edition, 2007. Brightwood ARE 5 Project Development & Documentation and Project Planning & Design Study Guides 2018.

### **Structures Overview** EDAD577 (graduate) EDAD427 (undergraduate, elective)

**Week 1** Review statics,  $\Sigma F = 0$ ,  $\Sigma M = 0$ ; beams load, shear and moment diagrams; stress  $F = P/A$  and strain  $e = P/AE$ .

Properties of customary building materials wood, steel, reinforced concrete. Tension and compression. Beam shear and moment diagrams. Solution of beam support forces. Use of typical beam loading shear and moment diagrams Beam deflection. Slide show of historic structural applications.

**Week 2** Beams and columns. Properties of cross sections, moment of inertia  $I = bd^3/12$ , section modulus  $S = bd^2/6$ , neutral axis. Masonry slide show.

**Week 3** Wood construction, connections and structural calculation, wood columns  $l/d$  slenderness ratio. Engineered wood. Compound beams. Wood slide show.

**Week 4** Architectural metals. Steel construction, connections and structural calculation, steel columns slenderness ratio  $kl/r$  where radius of gyration  $r = \sqrt{I/A}$ . Metals slide show.

**Week 5** Concrete composition and construction methods. Reinforced concrete slabs, and beams. Concrete slide show.

**Week 6** Reinforced concrete columns, whole concrete building design.

**Week 7** Review session. Midterm exam.

**Week 8** Foundation methods and design.

**Week 9** Vectors, Trusses. Long span slide show.

**Week 10** Long span structural systems, 3 hinge arches, hyperbolic paraboloids.

**Week 11** Types of structural framing including tall buildings. Structural layout exercises. Review of typical wood, steel and concrete systems.

**Week 12** Wind resistant design. Wind measurement and methods of resisting wind damage. Shear walls.

**Week 13** Earthquake resistant design. Earthquake rating systems. Code classification of earthquake prone areas, and required methods of design.

**Week 14** Review session. Final exam

Note: Due to snow days or other unforeseen events topics or exams may occur in a different week than shown here.

Grade is based on midterm, 50%. and final exam, 50%.

Attendance: student is dropped from class after 3 unexcused absences.

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**Massachusetts College of Art and Design / Department of Architecture**

Spring 2019

Monday-Thursday 9am-1pm

Faculty: Patricia Seitz and Tamara Roy

Office hours: Wednesday 12-1p and by request

## Thesis I

"Research is formalized curiosity. It is poking and prying with a purpose."

- **Zora Neale Hurston**

"Creativity requires input, and that's what research is. You're gathering material with which to build."

- **Gene Luen Yang**

*"I define the innovation process as a great idea, executed brilliantly, and communicated in a way that is both intuitive and fully celebrates the magic of the initial concept. We need all of these parts to succeed. Innovative ideas can be big or small, but breakthrough or disruptive innovation is something that either creates a new category, or changes an existing one dramatically, and obsoletes the existing market leader. We can obsolete ourselves or someone else, and it can be 'sexy', or address a basic human need – both the iPad and disposable diapers qualify for me. But it needs to either create a new market, or radically change an existing one."*

**Pete Foley** is a Consultant, Innovator, Artist, Scientist, Photographer, Musician, Accountant and Blogger, with 25 years of experience of Innovation and Behavioral Science in the Fortune 50.

<https://www.ideatovalue.com/inno/nickskillicorn/2016/03/innovation-15-experts-share-innovation-definition/>

## COURSE DESCRIPTION

Completing a successful independent thesis project is the culmination of the Master of Architecture degree at MassArt.

In Thesis I students select an issue in architectural design as the basis for their thesis project. The first half of the course is focused on developing well-structured research broadly based on the student's topics of interest and related areas that influence the program, approach to the site, technologies and other aspects relevant to the design. The goal is to develop the thesis proposal with a finalized site and a research agenda.

In the second half of the course, students zero in on their sharpened thesis topic, and work through the second round of more in-depth investigation and analysis of their earlier work, adding new components including interviewing experts, understanding current and historical precedents, and additional areas that may also support the social, cultural and philosophical issues for the design. By the end of the course, students have completed the research and analysis and have begun to test their concepts through preliminary design studies.

### Prerequisites:

Completion of or concurrent enrollment in EDAD 702 Architectural Design VII (Comprehensive Studio)

## COURSE WORKPLAN AND GOALS

While most architecture students inherently want to 'save the world', it is important to frame those altruistic impulses within the boundaries of what architecture can actually accomplish. Furthermore, a thesis can be helpful in setting a career direction and providing students with marketable expertise, so it helps to consider the theme in light of what the student would like to do in the future.

In this course, students begin by determining their area of interest, stated as what problem they are looking to solve. They present it to the class in the form of a *pecha kucha*, with the goal of crowd-sourcing their fellow classmates as well as the teacher for connections to the theme. They look through past MassArt thesis projects and choose one to present to the class that relates to their subject, method, or scale of inquiry. Students then map their own research trajectory in a visual diagram (professor to provide examples) and begin to gather data and precedents related to their question. They systematically present and interpret the data to draw new conclusions about the question and refine their project statement in terms of theoretical, programmatic, and site research categories.

Conducting at least one interview with an expert in the field of the design theme is required; more than one is preferred.

Intermittently the professor assigns mini design problems to keep the design wheels turning, such as providing 3 options for the design of a space fundamental to the program, or developing a site analysis. The framing of these exercises may vary depending on each student's theme.

By mid-semester, students have the following:

1. 20-word statement of the problem you are seeking to solve
2. (10) 11x17 pages of research presented visually within common graphic parameters for consistency, to be made into a class booklet – see Edward Tufte's, [Envisioning Information](#)
3. Site location and site analysis (one of the 10 pages)
4. Program (one of the 10 pages) that includes:
  - Quantitative square footages for all major and minor spaces
  - Qualitative program that defines spatial objectives
  - Diagram of program relationships/adjacencies
5. Several completed mini design exercises
6. List of design research projects are to be completed during the second half of the semester.

In the second half of the semester each student's particular area of research interest is developed into exercises due for each class. While there will be an assignment due at every scheduled date that your class group meets, the specifics of the assignment are up to you to determine – in advance – in the form of a 'workflow plan'. We will be going from large scale to small scale in terms of design testing, prototypes, etc.

## FOCUSED RESEARCH EXERCISES

### Exercise 1 – SITE ANALYSIS

What is it about your site that makes it a good fit for your program and interests? What aspects of your site do you need to know more about in order to start the next phase of designing (topography, zoning, context, access, climate, demographics around your site, etc.)? Make a digital and virtual model of your site. Scale, materials, software, focus of analysis is up to you.

### Exercise 2 – PEOPLE & PROGRAM

Who are your users? Who would run, develop, or finance your project? Who are the expert clients and designers who have done a version of your program? Have you talked to enough of them? What do they need/want? How can you use their unfulfilled desires to drive innovation into your project? Complete as many interviews as you deem necessary and document them with audio and with pictures, sketches, and quotes. Refine your program based on the input you receive.

### Exercise 3 – CONCEPT + BUILDING ORGANIZATION

Combining your responses from Exercises 1 and 2, what concepts can you bring to your project that will propel it forward, disrupt existing models, and make it great? Brainstorm 3 options for potential concepts that will inspire your project and based on those 3, create 3 options for how your program might lay out on your site. Did I say 3 options for each?! YES!!!

### Exercise 4 – RELATIONSHIP TO NATURE & TECHNOLOGY

How will your project respond to its environment? How will nature play a role in improving the experience of your

users? How will your building(s) be designed to suit its climate zone without too much reliance on high-energy mechanical systems? Can you imagine a net zero or energy positive version of your project, and if so what would that be? Develop your site plan, section(s), and physical model that foregrounds interaction with the outside, the environment, sustainability, structure, etc. The physical model should be at the same scale as your site model.

#### Exercise 5 – ZONE OF INNOVATION / DESIGNING A PROTOTYPE MODULE

What is your main area of design innovation for your building type? For example, what is the hotel room/classroom/airport gate/social area/housing/community of the future? Design and build physical and virtual models (sketchup, revit, rhino, or other software that Professor approves) of 3 module variations and show how it relates to your precedents and research in your field of inquiry.

#### Exercise 6 – FRONT ENTRANCE / IMAGE

What do you want passersby to know about your project? How can that information be transmitted? At what distances? How can your concept make your image powerful and memorable? Are there various thresholds of entrance that need to be developed in your project? What is going on the cover of Architectural Record when they publish your project??? Show 3 studies (preferably in sketchup) for the image of your project, then pick one and develop it further into a physical model and photoshop image.

#### FINAL REVIEW – COMPILATION

Compile each exercise into a clearly organized presentation, which complements the first half of the semester, to be discussed with a jury as well as submitted as a report. Show all models, virtual and physical. More information will follow about final requirements, timing, jury, etc.

### COURSE CALENDAR

Week 1	First class, review curriculum; discuss student themes individually
Week 2	Pecha Kucha by each student Presentations of past MassArt thesis projects from library
Week 3	20-word statement & Research Map presentation, desk crits General theoretical research, assembling data & precedents - desk crits
Week 4	Mini Design Research assignment presentation (design seed) Interview(s), Program research, analysis – desk crits
Week 5	Site research and analysis – desk crits <b>INTERIM REVIEW</b> – present research to date - 'messy' – pin up
Week 6	Theoretical Research, refined – desk crits Analysis Mini Design Research assignment presentation (site)

### SPRING BREAK

Week 7	Research intensification – desk crits Mini Design Research assignment presentation (program)
Week 8	Research intensification – desk crits <b>INTERIM REVIEW Mock final research digital presentation = (10) 11 x 17 sheets</b>
Week 9	Exercise 1 – Site Analysis
Week 10	Exercise 2 – People + Program Review Exercise 1 and 2
Week 11	Exercise 3 – Concept and Building Organization
Week 12	Exercise 4 – Relationship to Nature and Technology Review Exercise 3 and 4
Week 13	Exercise 5 – Zone of Innovation / Designing a prototype model
Week 14	Exercise 6 – Front Entrance / Image Review Exercise 5 and 6
Week 15	Final Review Compilation
May 16	<b>FINAL REVIEWS</b> – digital with built material best presented in boards or model(s)

### COURSE GOALS & OBJECTIVES

The student shall, at the end of the course, have developed the ability to independently:

1. *Identify* meaningful architectural questions
2. *Define* the interrelationship between research and design research
3. *Develop* a plan for research and design research methodologies
4. *Implement* a research plan according to a theme
5. *Identify* the necessary site and program information and document it in a way that serves the full duration of the project
6. *Implement* a design research plan according to a focused and refined theme
7. *Develop and Document* Thesis Research
8. *Design* several critical elements and systems of their final thesis project
9. *Manage and act on the input* of the course instructor and advisor.
10. **NAAB STUDENT PERFORMANCE CRITERIA** (Based on 2014 Conditions for accreditation)
  - **A.2 Design Thinking Skills** *Ability* to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.
  - **A.3 Investigative Skills** *Ability* to gather, assess, record, and comparatively evaluate relevant information and performance in order to support conclusions related to a specific project or assignment.
  - **A.6 Use of Precedents** *Ability* to examine and comprehend the fundamental principles present in relevant precedents and to make informed choices about the incorporation of such principles into architecture and urban design projects.
  - **A.8 Cultural Diversity and Social Equity** *Understanding* of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity of access to sites, buildings, and structures.
  - **B.1 Pre-Design** *Ability* to prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; an inventory of spaces and their requirements; an analysis of site conditions (including existing buildings); a review of the relevant building codes and standards, including relevant sustainability requirements, and an assessment of their implications for the project; and a definition of site selection and design assessment criteria.
  - **C.1 Research** *Understanding* of the theoretical and applied research methodologies and practices used during the design process.

## GRADING CRITERIA

Class work will be evaluated in the following proportions:

1. Preparation & Independent Work (75 %) – Coming to class prepared to present and/or discuss the exercise of the week as well as independent research/thought into the topic
2. Final Thesis 1 Presentation and Booklet (25%) – Clear and insightful communication of major themes that emerged during the summer during exercises and ongoing independent research.

**Class participation and Independent work** are key for success in this course. The professor expects attendance at every class unless there is a doctor's note, and for students to arrive prepared for discussions, desk crits, or pin ups as is outlined in the above course description as well as any additional requirements that have been discussed as the class progresses. Each student must also engage with their peers to foster constructive criticism, knowledge-sharing, and improvement of design arguments.

## RESOURCES

The MassArt Library has many thesis projects on file from past years. Please avail yourself of these.

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- **Students who do not achieve a B- in this course are required to develop acceptable work at the B- level to continue by June 1 of the same year. If this does not occur the student must retake the course. If a failing grade is received in a required course, students must take the course again and pass it. This rule does not apply to a student who changed majors and who did not pass requirements for a previous concentration.**

## Attendance

During the first week of classes, faculty state clearly their expectations for performance and attendance, their method of recording attendance, and their expectations for makeup work and examinations. All students must attend the first day of classes for which they are registered to reserve a place in the course. If a student cannot attend because of illness or other emergency, he or she must email faculty before the first class meeting to inform the faculty member of their absence. A student who misses the first meeting of a class without notice may be dropped from the roster by the instructor. Students are expected to attend all classes. Faculty have the right to assign an "F" or "NC" grade to a student who attends less than 80 percent of the meetings of any course. There are no formally excused absences for any reason, including illness. However, a student who will miss one or two classes may be able to make up missed work, at the discretion of each instructor. If a student will miss one or two classes due to illness, he or she should notify all current faculty members by e-mail. For absences of two or more class meetings due to illness, the student may contact the director of counseling to request a leave of absence.

## Students with Disabilities Statement

Massachusetts College of Art and Design is committed to fostering the academic, personal, and professional growth of all our students with a variety of resources for their success. We are committed to ensuring that students with documented disabilities, as defined under the Americans with Disabilities Amendments Act of 2008 (ADAAA), are provided equal access to all campus resources and opportunities.

If you believe you have a disability that may warrant accommodations, I urge you to contact the Academic Resource Center (ARC) Tower 8th floor, at 617-879-7280 or by email at [arc@massart.edu](mailto:arc@massart.edu). The Academic Resource Center provides support to all students as well as access to a disability coordinator, academic coaches and writing specialists.

Please check with the Bookstore about the availability of digital-audio versions of the assigned texts or readings in this course. If they are not available, or if you need additional materials in the digital-audio format, please contact the Academic Resource Center to assist you. It can take three (3) to four (4) weeks to secure digital-audio materials that are not available through our library network.

## Plagiarism

In creative work, plagiarism is the inappropriate and unethical representation of another's work as one's own. In those instances where a significant portion of a creative work is intentionally "appropriated," plagiarism is the failure to note, orally or in writing, the source of the appropriation. In expository or academic writing, whenever your work incorporates someone else's research, images, words, or ideas, you must properly identify the source unless you can reasonably expect knowledgeable people to recognize it. Proper citation gives credit where it is due and enables your readers to locate sources and pursue lines of inquiry raised by your paper. Students who do not comply may be penalized.

Tamara M. Roy AIA 128 Washington Street Arlington MA 02474 781.859.9550



## TAMARA ROY

Named one of Boston's Top 50 Power Women In Real Estate and elected the 2016 President of the Boston Society of Architects, Tamara is an architect and urban designer specializing in multifamily residential, academic, and commercial projects. Her housing portfolio includes over 2000 affordable and market rate units. She was the senior designer for the MassArt 'Treehouse', described as the most interesting Boston high rise in years by the Boston Globe, and is currently designing 'student housing for the future' for Western Michigan University.

Referred to by her clients as the mother of the micro-unit, Tamara brought the idea of compact living to the Mayor in 2010. She speaks widely on how small unit housing can address a shortage of supply for singles and couples and reduce carbon footprints in urban neighborhoods. Working with the Mayor's Housing Innovation Lab, her agenda as BSA President included a travelling micro unit, a middle income compact living competition for city-owned sites in Roxbury, a video about co-housing, and an exhibit entitled 'One Room Mansion'. On the policy side, she has worked with the City of Boston and the State to rewrite codes and design guidelines to accommodate small units.

Tamara received her Masters of Urban Design and Architecture from the Berlage Institute, an international think-tank in Amsterdam, The Netherlands, where she lived in a 280 square foot apartment with her husband and newborn baby. She is a devoted mother of two and an Assistant Professor at the Massachusetts College of Art and Design.

Tamara M. Roy AIA 128 Washington Street Arlington MA 02474 781.859.955

## Education

- 1992-1996 Master of Urban Design & Architecture, Berlage Institute, Amsterdam
- 1983-1988 5-year Bachelor of Architecture, Carnegie-Mellon University

## Professional Experience (projects in orange are illustrated in accompanying portfolio)

- 2006 – now Stantec Architecture Boston (formerly ADD Inc), Principal
- Mixed use master planning: Union Square Somerville Master Plan, One Charlestown Master Plan, Seaport Square Master Plan
- Housing: [Western Michigan Student Housing](#), [South Bay Residences and Retail](#), MassArt Treehouse, Westfield State Residence Hall, UMass Lowell Res. Hall, Troy Boston, 399 Congress, 1350 Boylston Street Residences
- Other: ['The Beat' Renovation of Boston Globe Production Facilities](#), [Yotel Micro Hotel](#), Channel Center Office Building
- 2005 – 2006 VonGrossman & Co., Boston MA
- Transit-oriented master planning in Vermont and Nevada.
- 1992 – 2004 Elkus-Manfredi Architects, Boston MA
- Mixed use master planning and architectural design in Boston, Chicago, Portland, NYC, Florida.

## Teaching Experience

- 2017- now Assistant Professor, Massachusetts College of Art and Design
- 2012 – now Advisor to What's In, emerging professionals researching alternative urban housing typologies
- 2004-2005 Northeastern University, Boston MA - 2<sup>nd</sup> Year architectural design studio, collaborating with Peter Weiderspahn and Tim Love
- 2000 – now Visiting critic at MIT, Harvard, RISD, NEU, MassArt, Suffolk, BAC

Tamara M. Roy AIA 128 Washington Street Arlington MA 02474 781.859.955

#### Public Speaking & Publications 2017–2018

'How to build diverse coalitions that win! Urban Revitalization, Micro Housing, Co-living', YIMBY (Yes In My Back Yard) Conference, September 2018

<https://yimby.town/schedule/>

'The Future of Housing in Boston and Beyond', Long Now Boston, September 2018

<https://longnowboston.org/>

'Housing a Changing City', Northeastern University Myra Kraft Series, September 2017

<https://www.northeastern.edu/communityaffairs/event/fall-2017-myra-kraft-open-classroomhousing-a-changing-city/>

'Housing the Workforce', Hubweek 2017

<http://www.thisiswhatsin.com/blog/2017/10/14/whats-in-stantec-hosts-panel-at-hubweek-2017-on-workforce-housing>

'Un-conventional' – Chapter on compact living and affordable housing models for book by David Gamble, in process

(Tamara speaks on panels and at conferences frequently – this is a small sampling of the speaking engagements she has participated in between 2017 and 2018.)

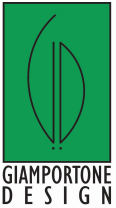
#### Registrations & Affiliations

1988 – present Registered Architect in the State of Massachusetts, # 8398

2016 President, Boston Society of Architects

Affordable Housing agenda, includes design and production of mobile 385 sf prefabricated urban housing unit that travelled around Boston ('uhu'), Roxbury Housing Innovation Competition for moderately-priced compact units on 3 city-owned sites, and the One Room Mansion exhibit, a simulated compact living apartment building including common lounge, game room, and 3 compact units (studio, 1 bed, 2 bed).

2017 – 2018 Past President of the BSA – Various assignments



## KEITH GIAMPORTONE, AIA, LEED AP BD + C

Keith Giamportone, AIA, LEED AP is the founder and a Principal at Giamportone Design, a firm focused on sustainable design and consulting. Keith has more than 30 years of diverse experience in Housing, K-12, University, Healthcare, Museum, Office and Retail.

Keith has taught at the Yestermorrow Design/ Build School in Vermont since 1984 and currently teaches Comprehensive Studio, Sustainable Architecture, Building Operating Systems and Integrated Systems at Mass College of Art and Design. Mr. Giamportone has been a critic at MIT, NCSU, Lehigh University and Mass College of Art and Design. He has presented at UNC Chapel Hill, NCSU, Meredith College, Lehigh University, Norwich University, Duke University, The Symposium for Healthcare Conference, and a Project Kaleidoscope Workshop. Keith has led a Green Charette for Peacehaven Farm in Whitsett, NC, and was part of the team for the Green Charette for Advanced Energy - NC Sustainable House Design Competition, as well as being a judge.

Recent sustainable projects at Giamportone Design include Mixed-Use renovation and addition in Lake Placid, architectural consulting for multi-family housing in Medford & Cambridge, MA, Architectural consulting for Herakles Farms in Cameroon, Africa, Peacehaven Farm Master Plan and Net-zero assisted living building for adults with autism, design architect consultant for the Lake Placid Conference Center (LEED Gold pending), a Montessori school Master Plan and Conceptual Design, a Golf Clubhouse & Restaurant at the Nevele Resort in Ellenville, NY, and a green residences in Raleigh, NC, Manchester, NH, and Manitoulin, Ontario, Canada.

The firm has provided Green Consulting and/or LEED Evaluation on the following projects:

- Cumberland County Elementary School, NC
- CCU unit – Lenoir Memorial Hospital
- Conference Center and School, Shelby, NC
- Tourister Mill – Mixed Use & Housing, Warren, RI
- Winston-Salem Family Services, Winston-Salem, NC

He was previously a Partner at BJAC, a 30-person architecture firm in Raleigh, NC and the Director of Design and Director of Sustainability for the firm. While there Mr. Giamportone led the effort to bring green design to buildings in healthcare, K-12, university, office and museum projects. Sustainable projects Keith designed or led while at BJAC include Enloe High School

Addition, the Randolph Hospital Outpatient & Cancer Center, Tryon Palace History & Education Museum and Visitor Center, The Museum of Life and Science expansion in Durham, NC, North Carolina State University Polk Hall Addition, Wayne Memorial Hospital Dining and a LEED evaluation of the Meredith College Mathematics & Science Building.



### Education

#### **Master of Architecture**

Massachusetts Institute of Technology  
*Chamberlain Prize for Design*

#### **Bachelor of Science in Art & Design**

Massachusetts Institute of Technology

### Architecture Registrations

NC, MA, NY, FL, NCARB, LEED AP

### Affiliations

American Institute of Architects

Past NC AIA Committee on the Environment

US Green Building Council

Past Board Member/Treasurer of the NC Triangle Chapter USGBC

Adjunct Faculty - Mass College of Art and Design

Cambridge Climate Protection Action Committee member

Past Wake County Energy Advisory Committee

Yestermorrow Design/Build School Faculty

### Awards

NC Design/Build Award - Randolph Hospital Outpatient and Cancer Center

Anthemion Award for Adaptive Reuse - BJAC office (BJAC)

2002 Educational Design Showcase - Carnage Middle School –

Outstanding Architecture and Design in Education (BJAC)

PCI Award –Harvard Medical School New Teaching Facility

Blue Cross/Blue Shield CT–Parking Deck (Ellenzweig team)

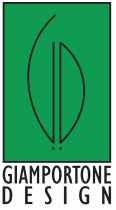
Associated Builders & Contractors – Fifty West Office Bldg –

Outstanding Project 1990 (Cooper Carry team)

### Publications

*"Workshop for Facility Decision Makers on the Value of Life-Enhancing Healthcare Design"* Journal of Healthcare Design, Vol IX: 1997

Web Site: [www.giamportonedesign.com](http://www.giamportonedesign.com)



# KEITH GIAMPORTONE, AIA, LEED AP BD + C

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## Healthcare

### **First Health Richmond Memorial**, Rockingham, NC (BJAC)

- Emergency Department addition and renovations

### **Stanly Memorial Hospital**, Albemarle, NC (BJAC)

- Roy Hinson Cancer Center – Radiation /Chemotherapy
- Operating room for Birthing Area
- Nursery
- Family Center with L/D/R/P suite
- Business Administration and main entrance lobby
- Medical Office Building
- Classrooms/Medical Library/Conf Room/Board Room
- 110 & 150-car parking decks

### **White Plains Hospital Center**, White Plains, NY (Lothrop Associates)

- Cancer Treatment Center
- New Patient Tower (Emergency Department, Psychiatric, O/P OR, Med-Surg Unit, PT /Cardio Rehab)
- Operating Suite Renovation
- Nuclear Medicine Suite
- Level II Neonatal Nursery
- Breast Imaging Center
- 220-car parking deck

### **Lawrence Hospital**, Bronxville, NY (Lothrop Associates)

- LDR Suite including Operating Rooms
- Pediatric Unit
- Ambulatory Surgery Nursing Unit

### **Craven Regional Medical Center**, New Bern, NC (BJAC)

- Patient Tower addition (Oncology, ICU)
- PET Scanner Suite
- Administration

### **Wayne Memorial Hospital**, Goldsboro, North Carolina (BJAC)

- Endoscopy Suite
- Dining Room /Cafeteria/ Conference addition
- AHEC/Pharmacy addition (Medical Office building)

### **Halifax Memorial Hospital**, Roanoke Rapids, NC (BJAC)

- Medical Mall and Wellness Center design

### **Lenoir Memorial Hospital**, Kinston, NC (Consultant to East Group)

- CCU & Administration Addition
- Nurse Station Renovations

### **UNC Hospitals**, Chapel Hill, NC (BJAC)

- Vascular Interventional Radiology Suite
- PT/OT Renovation design

### **UNC Healthcare System**, Chapel Hill, NC (BJAC)

- Northface expansion study – (300,000 SF expansion)

### **Novant Health**, Winston-Salem, NC (WRC&P)

- The Breast Clinic

### **Forsyth Radiological Associates**, Winston-Salem, NC (WRC&P)

- Radiology Clinic

### **Harvard University Medical School**, Boston, Massachusetts (Ellenzweig Associates)

- New teaching facility including atrium, auditorium

### **Kaiser Permanente**, Fairfax, VA (Cooper Carry Associates)

- Medical Office Building and Parking Deck

### **NCSU Veterinary College of Veterinary Medicine**, Albemarle, NC (BJAC)

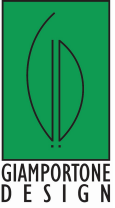
- Radiation Oncology suite

### **Lawrence General Hospital**, Lawrence, MA (Consultant to Springer Associates)

- Medical Office Building & Parking Deck (design)
- Outpatient Surgery Center (design)

### **Bulger Veterinary Hospital Renovation**, Andover, MA (Consultant to Springer Associates)

- New Veterinary Hospital in renovated building.



## K-12, Education: University & Research

**Sterling Montessori**, Cary, North Carolina. (Giamportone Design w/ Brown Architects)

- Master Plan and Conceptual Design

**Enloe High School**, Raleigh, North Carolina. (BJAC)

- Addition and Renovation

**Fred J. Carnage Middle School**, Raleigh, North Carolina. (BJAC)

- Addition and Renovation

**Northridge Elementary School**, Raleigh, North Carolina. (BJAC)

- Addition and Renovation

**Ligon Elementary School**, Raleigh, North Carolina. (BJAC)

- Addition and Renovation

**Goodwill Headquarters NWNC**, Winston-Salem, North Carolina. (Walter Robs Callahan & Pierce)

- Headquarters, Classroom, Cafeteria, Store, Work Area Addition and Renovation

**UNC Chapel Hill**, Chapel Hill, North Carolina. (BJAC)

- Bioinformatics Building
- Bondurant Hall, Medical Science and Research Building, New Building and Renovations

**North Carolina State University**, Raleigh, North Carolina. (BJAC)

- Polk Hall Teaching and Laboratory Addition and Renovations
- Bioprotection Laboratory/Teaching Buildings & Greenhouse Study (design)

**UNC Pembroke**, Pembroke, North Carolina. (BJAC)

- Oxendine Science Center Addition and Renovations (Lab and Teaching)

**UNC Greensboro**, Greensboro, North Carolina. (BJAC)

- Library and Student Center Connector Building

**Meredith College**, Pembroke, North Carolina. (BJAC)

- Admissions and Outreach Building
- Mathematics & Science Building (LEED evaluation)

**Harvard University Medical School**, Boston, Massachusetts (Ellenzweig Associates)

- New teaching facility including atrium, auditorium

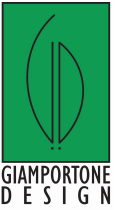
**Childrens Hospital**, Boston, Massachusetts (Ellenzweig Associates)

- 15-story Research Laboratory and Auditorium

**University of Pennsylvania**, Philadelphia, Pennsylvania (Ellenzweig Associates)

- Chemistry Building Addition and Renovation (design)





# KEITH GIAMPORTONE, AIA, LEED AP BD + C

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## Housing

**240 Salem Street**, Medford MA. (Giamportone Design - design and project management consultant to EvB Design)  
16 Residential Units- High Performance building w/ Bensonwood panels, triple glazed windows and PV panels.

**2519 Main Street**, Lake Placid, NY. (Giamportone Design w/ EvB Design)  
▪ 7 Residential Units and Commercial space mixed –use building

**168 Hampshire Street**, Cambridge MA. (Giamportone Design - design and project management consultant to EvB Design)  
▪ 10 Residential Units and Commercial space mixed –use building.

**Herakles Farms**, Cameroon, Africa  
▪ Design of housing, food, clinic and support buildings for a palm oil farm operation.

**Judge Residence**, Cary, NC  
▪ 8,000 + SF High-end Residence

**Peacehaven Farm**, Whitsett, NC.  
▪ Masterplan and multi-unit design for Adults with Autism Community.

**New Hampshire Residence**, Concord, NH.  
▪ Design for a 4,000 SF High-end Residence.

**Stowe Hollow House**, Stowe Hollow, VT. (w/ 2Morrow Studios)  
▪ Design for a 4,000 SF High-end Residence.

**Waitsfield 10**, Waitsfield, VT. (w/ 2Morrow Studios and Yestermorrow Design/Build School))  
▪ Design for an experimental Residence.

## Office

**Appian Way Energy Partners**, Cambridge MA. (Giamportone Design - design and project management consultant to EvB Design)

**Fifty West Office Building**, Fairfax Virginia. (Cooper Carry Associates)  
▪ 250,000 SF Office Building and Parking Deck

**Decoverly Office Building #6**, Fairfax Virginia. (Cooper Carry Associates)  
▪ 75,000 SF Office Building



**President** 2016 – present

**Massachusetts College of Art and Design**

Boston, MA | [massart.edu](http://massart.edu)

- Professor of Religious Studies and Humanities (2017 – present)

Founded in 1873, MassArt has a legacy of leadership as the only freestanding, public college of art and design in the country and the nation's first art school to grant a degree. As President, I lead over 500 employees in an institution that serves more than 2,000 students seeking graduate and undergraduate degrees and certificates in art, design, and education. I steward an \$80 million annual budget.

**Provost & Chief Academic Officer** 2010 – 2016

**University of North Carolina School of the Arts**

Winston Salem, NC | [uncsa.edu](http://uncsa.edu)

- Professor of Religious Studies and Humanities (2010 – 2016)
- Acting Chancellor (Summer 2013)

UNC School of the Arts is America's only freestanding public university dedicated to the performing arts. The curricula, built around a rich liberal arts core, lead to degrees and diplomas at graduate, undergraduate, and high school levels. As Provost, I led more than 130 full-time faculty, dozens of adjunctive faculty, and guest artists who trained 1,200+ students in dance, design and production, drama, filmmaking, and music. I stewarded a \$29 million annual budget.

**Senior Vice President of Academic Administration/Dean of the Faculty** 2006 – 2010

**Southeastern Baptist Theological Seminary & The College at Southeastern**

Wake Forest, NC | [sebts.edu](http://sebts.edu)

- Professor of Theology (2006 – 2010)
- Associate Professor of Theology (2003 – 2006)
- Assistant Professor of Theology (2001 – 2003)
- Instructor of Music and Theology (1998 – 2001)
- Academic Council (2004 – 2010)
- Presidential Committee for Curricular Review, Chair (2005 – 2006)
- Senior Associate Dean (2004 – 2006)
- Graduate Studies Committee (2003 – 2005)

Southeastern's Seminary and College trains more than 2,500 students annually in graduate and undergraduate programs. As Senior Vice President of Academic Administration/Dean of the Faculty, I served on the President's Cabinet and had executive oversight of academic and student services, overseeing a \$20 million annual budget, and leading seven deans and more than 70 full-time faculty.

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## Community & Academic Associations

<b>Boston Public Schools Arts Expansion Advisory Board, Member</b> edvestors.org/initiatives/bps-arts-expansion/arts-advisory-board	2018 – present
<b>Boston Arts Academy, Trustee (2018 Chair, 2017 Vice Chair)</b> bostonartsacademy.org	2017 – present
<b>American Association of State Colleges and Universities, Advisor for New Presidents Academy</b> aascu.org	2016 – present
<b>ProArts Consortium, Director (2018 Treasurer)</b> proarts.org	2016 – present
<b>Fenway Alliance, Institutional Member</b> fenwayculture.org	2016 – present
<b>Colleges of the Fenway, Director</b> colleges-fenway.org	2016 – present
<b>Medical Academic and Scientific Community Organization, Director</b> masco.org	2016 – present
<b>North Carolina Humanities Council, Trustee</b> nchumanities.org	2015 – 2016
<b>Association of Chief Academic Officers, Member</b> acao.org	2014 – 2016
<b>INSIGHT Winston Salem, Participant and Facilitator</b> leadershipws.org/insight-winston-salem.cfm	2012 – 2016
<b>North American Academy of Liturgy, Early Liturgy Seminar Participant</b> naal-liturgy.org	2006 – 2007
<b>Trinity Academy of Raleigh, Trustee (2008 – 2010 Chair, 2004 – 2005 Headmaster)</b> trinityacademy.com	2003 – 2010
<b>Yale University Center for Faith &amp; Culture, Grant Recipient</b> faith.yale.edu	2004
<b>American Philosophical Association, Member</b> apaonline.org	2014 – present
<b>American Academy of Religion, Member</b> aarweb.org	1999 – present

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## Selected Publications, Lectures, and Creative Projects

pikappalambda.org

- “World Making and the End of Higher Ed”** July 2018  
a presentation at a colloquium of Promoting Human Betterment Through the Arts and Humanities at the University of Wisconsin – Madison, proposing ways of thinking about the purpose of higher education
- “Changing Campus Culture through Empathy, Vulnerability, and Reflection”** March 2018  
a keynote address for the Contemplative Higher Education Alliance for Research, Teaching, and Service at the University of North Carolina at Chapel Hill
- “How God Came to Be”** Fall 2015  
a six-session lecture series at St. Paul’s Episcopal Church, exploring the historical development of the doctrine of the Trinity
- Twyla Tharp’s “Sweet Fields”** April 2015  
a UNCSA School of Dance production for which I served as Musical Director and Conductor at the invitation of Dean of Dance, Susan Jaffe, and Dean of Music, Wade Weast, in collaboration with choreographer Alex Brady
- “Bach in Sacred Space”** January 2015  
a UNCSA School of Music lecture recital, in collaboration with Ida Bieler; I delivered a lecture on JS Bach’s use of chorale themes in select violin works accompanying Bieler’s performance of Bach’s *Partita in D minor* and *Sonata in A minor*
- CIRKUS THEATRE** January 2015  
a UNC-TV documentary series produced by our UNCSA team, based on a multi-year creativity project with Cirque du Soleil ([unctv.org/content/cirkus](http://unctv.org/content/cirkus))
- “The Story of the Bible”** Spring & Fall 2014  
a five-part overview of the grand narrative of the Bible at St. Paul’s Episcopal Church
- “With Imagination: Reading Scriptures by Faith, for Faith”** September 2013  
a lecture at St. Paul’s Episcopal Church on the role of imagination in reading Scriptures
- “The Nicene Faith and Christian Worship: Some Reflections and Proposals”** 2011  
a chapter in *Evangelicals and Nicene Faith: Reclaiming the Apostolic Witness*, ed. Timothy George (Baker Academic), based on a lecture given at Samford University’s Beeson Divinity School conference, “The Will to Believe and the Need for Creed” (September 2009)
- “Meaning, Reference, and Textuality: An Evangelical Appropriation of Hans Frei”** 2010  
an article (with Bruce Ashford) in *Scottish Journal of Evangelical Theology* 28/2: 195-216

**“The Significance of Liberal Arts and Sciences in Undergraduate Education”** November 2007  
a Shaftesbury Luncheon lecture at the John Locke Foundation

***A Theology for the Church*** 2007  
a textbook for which I was associate editor and author of two chapters (Broadman & Holman)

**“Voicing God’s Praise: The Use of Music in Worship”** 2002  
a chapter in *Authentic Worship*, ed. Herbert W. Bateman, IV (Kregel Academic)

**“Messianic Intermezzo: The Spirit, Eschatology, and Worship in the Church”** 2001  
a chapter in *Looking to the Future*, ed. David W. Baker (Baker Books)

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## Education

**Doctor of Philosophy** 2001  
Southeastern Baptist Theological Seminary  
Wake Forest, NC | [sebts.edu](http://sebts.edu)

- Major: Theology
- Dissertation: “In Spirit and Truth: The Holy Spirit and the Interrelationship of Doxology and Doctrine”
- External Reader: Geoffrey Wainwright, Duke University

**Theological Studies** 1996 – 1997  
Southeastern Baptist Theological Seminary  
Wake Forest, NC | [sebts.edu](http://sebts.edu)

**Music Studies** 1987 – 1988  
University of North Texas  
Denton, TX | [unt.edu](http://unt.edu)

- Teaching Assistant to Avon Gillespie
- Assistant Conductor of Men’s Chorus

**Master of Music** 1987  
Hardin-Simmons University  
Abilene, TX | [hsutx.edu](http://hsutx.edu)

- Major: Choral Conducting
- Minor: Musicology
- Thesis: “Benjamin Britten’s ‘Rejoice in the Lamb’”
- Graduate Assistant to Loyd Hawthorne

**Bachelor of Music** 1986  
Hardin-Simmons University  
Abilene, TX | [hsutx.edu](http://hsutx.edu)

## LYSSA PALU-AY

### EDUCATION

2016	<i>Ph.D., Higher Education Administration</i> College of Education and Human Development University of Massachusetts Boston	Boston, MA
2001	<i>Master of Fine Arts Photography</i> Massachusetts College of Art & Design	Boston, MA
1990	<i>Bachelor of Arts Political Science</i> Additional Coursework: Faith, Peace and Justice Program Boston College	Chestnut Hill, MA

### PROFESSIONAL EXPERIENCE

2017-present	<i>Interim Provost/Senior Vice President of Academic Affairs</i> Massachusetts College of Art and Design	Boston, MA
2001-2017	<i>Professor of Studio Foundation</i> Massachusetts College of Art and Design	Boston, MA

#### Visual Language I

Studio Foundation course required for all students. This course emphasizes two-dimensional design fundamentals and imagery development. The basics of digital and traditional mediums are introduced through research, project development and critique.

#### Time:

Themed Courses: Memory and Myth and Vocabulary of the Landscape, Who are you and why?

Studio Foundation course required for all students. This course emphasizes four-dimensional/time-based work and understanding concepts of time, narrative and movement. Students develop skills in sound and video design, research, project development and critique.

2004-2007      Pre-Semester Drawing (Summer Sessions)

Studio Foundation drawing course required for some students and optional for others. This is a rigorous drawing studio introducing drawing techniques, working with a live model and encourages innovative approaches to mark making.

2004- 2016      *Adjunct Faculty of Art Education*  
Massachusetts College of Art and Design      Boston, MA

Portfolio I & II

Art Education course required for Art Education majors and students from other departments. The course requires students to develop studio projects with connections to their college-wide learning. These portfolios will inform and inspire curriculum content in the classroom.

### ADMINISTRATION

2001- 2017      *Coordinator, Academic Compass Mentoring Program*  
Massachusetts College of Art and Design      Boston, MA

The Compass program is an advising and mentoring program for first generation college students; students from alternative, non-traditional or underserved high schools; students who have taken time out between high school and college; and others who may face challenges in their transition to college. Coordinator responsibilities include: create advising, mentoring and learning community for 60-70 undergraduate students from underserved backgrounds. Manage a budget and a staff of faculty and graduate mentors. Network across the college: academic departments, admissions, learning center, financial assistance and other offices. Develop program goals, workshop and retreat topics, evaluations and plans for sustainability of the program.

Recent Program Highlights:

- Of 87 students from 2005-09 a 2014 study found 70% of students completed degrees, transferred, or are still enrolled and on track to earn a degree.
- Of 16 Compass freshmen, 14 returned for their sophomore year. Compass students passed 73% of courses in first year program. 8 passed 90-100% of first year courses.
- Academic Compass Advisory Board established. The Advisory Board advises in matters of education that relate to closing the achievement gap and creating a successful educational system for Compass students. Board members include chairs, staff, faculty of major departments and administrators.

- Freshmen workshops and tutoring programs implemented-chairs of departments, college wide staff and upper-class Compass students and Alums participate.
- Mentoring program expands to students beyond the freshmen year.
- Secured grant from private funder.
- Film created about Compass Program.
- Annual Compass Talks/Retreats with Visiting Artists/Scholars

2013	Nada Mustafa Ali, Women's Rights Activist & Scholar
2012	Darien Bascombe, Design Firm
2011	Kera Washington, Ethnomusicologist
2010	Dr. Lowery Stokes Simms, Curator/Scholar
2010	Lion King Cast and Crew
2007-10	Venerable Tenzin Yiggyen, Tibetan Monk/ Master Sand Mandala Artist
2009	Barrington Edwards, Faculty/Artist, Boston Arts Academy
2008	Barry Gaither, Director and Curator, National Center for Afro-American Artists
2007	<i>Here and Now, African and African American Film Conference</i> , New York, NY
2005-06	Tumelo Mosaka, Curator, Brooklyn Art Museum
2004	Lionel Davis, Anti-apartheid Activist/Artist

2000-2001      *Co-Director, Multicultural Student Development*  
 Massachusetts College of Art and Design      Boston, MA  
 Responsibilities included maintaining and encouraging discussion and affirmation of diversity issues on campus. Investigated and reported on diversity programs at other colleges. Participated in Colleges of the Fenway diversity initiatives and meetings. Managed Boston Public School (BPS) mentoring program.

Program Highlights:

- Reports generated for development and growth of BPS Mentoring Program.
- Film series created exploring issues of race, class and gender.
- Represented the College at Hall of Black Achievement, Bridgewater State College.

## **PUBLICATIONS**

- 2016    Portraiture of Racial/Ethnic and Cultural Identity Among Students of Color at an Institute of Art and Design: A Post-Colonial and Critical Race Theory Study  
Proquest (2016): 1-207 Lyssa Palu-ay
- 2015    “You don’t look like your profile picture”: the ethical implications of researching online identities in higher education, Special Issue Ethical Issues in Online Research, *Educational Research and Evaluation*, Volume 21, no. 2  
Gerardo Blanco Ramirez and Lyssa Palu-ay

## **SELECTED PANELS, SYMPOSIUMS AND WORKSHOPS**

- 2017    upcoming *Building Bridges of Intellectual Support Across Writing and Art*  
Association of Independent Colleges of Art and Design (AICAD)                      Brooklyn, NY
- Portraiture of Identity Among Students of Color at an Institute of Art and Design*  
American Educational Research Association of (AERA), Knowledge to Action:  
Achieving the Promise of Equal Educational Opportunity                      San Antonio, TX
- Portraiture of Racial, Ethnic and Cultural Identity Among Students of Color at an Institute of Art and Design: A Post-Colonial Critical Race Theory Study*  
Umass Boston Higher Education Administration All Cohort Retreat                      Boston, MA
- 2015    *Exploring Posthumanism in Higher Education: Methods, Contexts, and Implications*  
Association for the Study of Higher Education (ASHE), Inequality in Higher Education                      Denver, CO
- Strategies for Equity and Inclusion in Art Colleges*  
The National Art Education Association National (NAEA) Convention  
New Orleans, LA
- 2014    “I, Too, Am...”; *Using New Media to Uncover our Deeper Stories*  
Race and Pedagogy National Conference                      Puget Sound, WA
- Artists of Color in Higher Education: Preparation, Recruitment and Retention*  
Imaging America National Conference                      Atlanta, GA
- Representing Diversity in College and University Identities: Implications for Ethical Research Practice*  
Association for the Study of Higher Education (ASHE)                      Washington, DC
- Dissertations, Diapers, and Deconstructing Identity: Autobiographical Narratives of the Experiences of Full-time Doctoral Student Mothers of Color*



The New England Educational Research Organization (NEERO) Conference  
Dover, VT

*K-12 and Higher Education Strategies for Diversity and Inclusion in Art  
Colleges*

Massachusetts Art Education Association Annual (MAEA) Conference  
Boston, MA

2013 *Within Our Sights: Toward National Leadership in Public Higher Education*  
Session moderator: *Innovative Approaches to Close the Achievement Gap*  
Massachusetts Department of Higher Education  
Vision Project Conference Marlborough, MA

2012 *29<sup>th</sup> Annual Winter Roundtable: Beyond Borders: Transforming Lives through  
Traditions and Innovations, Presentation on MassArt's Academic Compass  
program and the Counseling Center*  
Teachers College, Columbia University New York, NY

*MassArt ALANA Panel Discussion: How Education and Cultural  
Backgrounds Impact Artmaking/Teaching*  
Massachusetts College of Art and Design Boston, MA

2006 *History Presumed: An Artist Talk with Women Photographers in Nueva Luz  
(panel discussion)*  
Photographic Journal, Asian American Arts Alliance New York, NY

2006 *Shared Photographic Moment in Post-Directorial Photography (panel  
discussion)*  
Society for Photography Educators Chicago, IL

2005 *Political Cartooning, Power of Image (panel discussion)*  
Massachusetts College of Art and Design Boston, MA

2002 *Stieglitz and His Descendants: The Continuing Poetic Tradition in  
Photography:*  
College Art Association, Studio Session Philadelphia, PA

#### **FELLOWSHIPS AND RESIDENCIES**

2013 Bruce C. Dayton Faculty Fellowship Boston, MA  
Research: Curriculum and Pedagogy at Institutes of Art and Design

2006 Marion and Jasper Whiting Fellowship Boston, MA  
Research: Tibetan Buddhism in the Indian Himalayas

2006 Artist-in-Residence Rubin Museum of Himalayan Art

New York, NY

## CURATORIAL

2006-2008 *Brant Gallery Coordinator*

Massachusetts College of Art and Design

Boston, MA

The Brant Gallery provides a forum for interdisciplinary/cross-cultural curriculum development through its exhibition program, lecture series and visiting artists. The gallery expands the boundaries of Studio Foundation curriculum by introducing students to contemporary issues in art from a global perspective. Coordinator's responsibilities include: conceptualize and implement curriculum content with Gallery programming from exhibits to artist talks. Curate and coordinate logistical details of exhibits and visiting artists. Manage budget, create press releases and organize assistants and preparators.

### Program Highlights:

- Established the Brant Gallery as a distinctive teaching space and exhibition venue for the Studio Foundation as well as the wider college community.
- *Exhibit, Power of Image-Past Migrations: Images and Icons from the Suriname Rainforest, South America.* The exhibit followed a chronological path beginning with the displacement of Africans from their homeland to eventual prosperity and preservation of their culture.
- *Exhibit, Huynh Phuong Dong: Visions of War and Peace*  
Mr. Dong was both a soldier and combat artist drawing and painting the wars in Vietnam. He is considered one of Vietnam's National Living Treasures.
- *Artist in Residence, Tenzin Yiggyen-Compassion in Sand Grain*  
Yiggyen constructed a sand mandala to teach about Buddhist methods for the development of great compassion and the nature of impermanence.
- *Artist in Residence, Pema Rinzin, Master Tibetan Tangka Painter*  
Conducted workshops on *Getting Color from Mineral Pigments* and introduced *Traditional Tibetan Painting Methods*.
- *Exhibit, Made in Poland: Contemporary Pinhole photography*  
Seven Polish photographers exhibit their work. The work introduces many methods of contemporary pinhole photography.
- *Exhibit, Susan Bank, Campo Adentro*  
Bank's photographs create a visual poetry from the raw essentials and details of daily life of campesinos.

- *Exhibit, In the Interest of Empire*-Keith Morris Washington  
Washington traveled to Iraq with a Christian Peacemaker team to witness and document his experience of the war through his paintings.

### SELECTED EXHIBITIONS

2016	Bakalar and Paine Galleries, <i>Selections</i>	Boston, MA
2015	Brant Gallery, <i>Directions</i>	Boston, MA
	MassArt Annual Benefit Art Auction	Boston, MA
2014	Village Art Theatre Gallery, <i>The Landscape of Memory</i>	Danville, CA
2011	California Institute of Integral Studies, <i>Solo Exhibition</i>	San Francisco, CA
	Arnheim Gallery, <i>In the Front Row: ALANA Faculty at MassArt</i>	Boston, MA
2010	Photographic Resource Center, <i>Northeast Exposure Online, NEO</i>	Boston, MA
	University of North Dakota, <i>Of Memory, Bone and Myth</i>	Grand Forks, ND
2009	Carroll and Sons, <i>Boston Drawing Project 10th Anniversary Show</i>	Boston, MA
2010	The Illinois Institute of Art, <i>From Nature</i>	Chicago, IL
	Limner Gallery, <i>Art Biologic</i>	Hudson, NY
	23 Sandy Gallery, <i>Photo+Book</i>	Portland, OR
2008	Pen & Brush Gallery, <i>Photography Exhibition</i>	New York, NY
	MassArt Annual Benefit Art Auction	Boston, MA
2007	SPE Multicultural Caucus Exhibit, <i>Interstice</i>	Miami, FL
	The HP Gallery, En Foco Auction, <i>Depth of Field</i>	New York, NY
2006	Bernard Toale Gallery, <i>Boston Drawing Project</i>	Boston, MA
	Rubin Museum of Art, <i>I See No Stranger: Early Sikh Art and Devotion</i>	New York, NY
	Amritsar the Golden Temple: Video work	New York, NY
2005	Urban Institute for Contemporary Art, <i>Exposure X9</i>	Grand Rapids, MI
	Wellington B. Gray Gallery,	
	4 <sup>th</sup> Photography Biennial Exhibition	Greenville, NC
	e3 Gallery, <i>Nothing to be Done</i>	New York, NY
2004	Carpenter Center-Harvard University,	
	<i>The World Was Deaf Here</i>	Cambridge, MA
	Wellesley College, <i>Studio Matters</i>	Wellesley, MA
	Sondra Gordon Gallery, Boston Arts Academy	Boston, MA

	Indian Hill Gallery	Wells, VT
2003	Bakalar Gallery, <i>Annual Benefit Art Auction</i>	Boston, MA
	Brant Gallery, <i>Solo Exhibition</i>	Boston, MA
2002	Viridian Artists, <i>13th Annual Juried Exhibition, Director's Choice</i>	New York, NY
	Southern Exposure, <i>SoExquisite</i>	San Francisco, CA
	Bakalar Gallery, <i>Annual Benefit Art Auction</i>	Boston, MA
2001	Bernard Toale Gallery, <i>Boston Drawing Project</i>	Boston, MA
	Fulton Street Gallery, <i>Exposed</i>	Troy, NY
	The Copley Society, <i>Manifest</i>	Boston, MA
2001	Newburyport Art Association, <i>4th Annual Regional Juried Show</i>	Newburyport, MA
	Southern Exposure, <i>Synesthesia</i>	San Francisco, CA
	Visual Arts Alliance, <i>18th Annual Juried Exhibition</i>	Houston, TX
	Huntington Gallery, <i>Graduate Thesis Exhibition</i>	Boston, MA
2000	The Print Center, <i>74th Annual International Photography Competition</i>	Philadelphia, PA
	Lamar University Gallery, <i>Dishman Competition 2000</i>	Beaumont, TX
	The Long Beach Island Foundation of the Art & Sciences	
	<i>74th Annual International Photography Competition</i>	Loveladies, NJ

### PUBLICATIONS OF VISUAL WORK

2017	<i>The Maine Review</i> , Port Clyde, ME
2006	<u>Indian Himalayas</u> .Self Published. Boston, MA
2006	<i>Nueva Luz Photographic Journal</i> Volume 11 No. 2: Essay by Margarita Aguilar
2006	43 <sup>rd</sup> <i>National Conference: A New Pluralism: Photography's Future</i> , Society for Photography Educators, catalogue
2002	90 <sup>th</sup> <i>Annual Conference</i> , College Art Association, abstracts
2001	<i>Manifest</i> , The Copley Society of Boston, catalogue
2001	<i>MFA Thesis Exhibition</i> , Massachusetts College of Art, catalogue
2000	<i>The Print Center 74th Annual International Competition</i> , catalogue

### REVIEWS (OF)

2010	<i>Of Memory, Bone and Myth</i> , Grand Forks Herald	Grand Forks, South Dakota
	Northeast Exposure Online (NEO), Photographic Resource Center	Boston, MA
2001	<i>Manifest Rewards</i> , Arts Media	Boston, MA

2000 *Annual International Competition at the Print Center, Art Matters*  
Philadelphia, PA

### **REVIEWS (BY)**

Rev. of Nalini Malani, *Asian Arts Pacific Magazine*, No. 51 (Winter 2007)  
Rev. of Shintaro Miyake Beaver No Seikatsu, *Asian Arts Pacific Magazine*, No. 49  
(Summer 2006)  
Rev. of Dayanita Singh: Chairs, *Asian Arts Pacific Magazine*, No. 45 (Summer 2005)

### **PROFESSIONAL DEVELOPMENT**

2013 38<sup>th</sup> Annual Conference  
Association for the Study of Higher Education (ASHE) St. Louis, MO

2012 *Freedom to Learn*  
Association for the Study of Higher Education (ASHE) Las Vegas, NV

2010-11 *Multicultural Think Tank*  
New England Resource Center for Higher Education (NERCHE)  
Boston, MA

2010 *A Brand New Future: Massachusetts Teachers Association* (MTA)  
Ethnic Minority Affairs Conference Natick, MA

2010 *Facing Diversity: Leveling the Playing Field in the Photographic Arts*  
Society for Photography Education (SPE) National Conference  
Philadelphia, PA

2007 Lecture: Ron Takaki, *The Master Narrative*, Asian American Center,  
Northeastern University Boston, MA

2006 *A New Pluralism: Photography's Future*,  
Society for Photography Education (SPE) National Conference  
Chicago, IL

2002 College Art Association Conference (CAA) New York, NY

2000 College Art Association Conference (CAA) Philadelphia, PA

### **SERVICE**

#### **Academic:**

2017 Search Committee, 3D Fine Arts Faculty Search

2014-15 Student Success Committee, Chair: 2015

2015 Search Committee, Dean of Academic Resource Center

2014 Search Committee, Dean of Admissions

2011-12	All College Committee
2009	Search Committee, 2D Fine Arts
2001 - present	Studio Foundation Curriculum Committee
2008 - present	Academic Compass Advisory Board
2005 - 2007	Student Success Committee
2004 - 2005	Art Education Portfolio, Curriculum Committee

### **Non-academic:**

1990-91	Jesuit Volunteer Corps <i>Intake and Assessment Specialist, Washington County</i>
Community	Action, Hillsboro, OR Worked in a social service agency assessing clients' needs, ranging from housing and energy assistance to head start. Corps work is based on four values—social justice, simple living, community, and spirituality.

### **PROFESSIONAL AFFILIATIONS**

American Educational Research Association (AERA)  
 Association for the Study of Higher Education (ASHE)  
 Council member on Ethnic Participation (ASHE)  
 College Art Association (CAA)  
 Imagining America  
 En Foco  
 Massachusetts Teachers Association (MTA)  
 Society for Photography Educators (SPE)

**Dr. Kymberly N. Pinder Named Provost of  
Massachusetts College of Art and Design**



**BOSTON, MA July 26, 2018** – [Massachusetts College of Art and Design \(MassArt\)](#) has named Dr. Kymberly N. Pinder as the college's new provost and senior vice president of academic affairs, effective January 2019. Dr. Pinder, currently dean of the College of Fine Arts at the University of New Mexico, will succeed Kenneth Strickland, who retired in June 2017. The selection of Dr. Pinder as MassArt's next provost is the outcome of an extensive national search launched in September 2017, led by a 15-member search committee of MassArt faculty, staff, and a student representative facilitated by consultant Park Square Executive Search.

"I am delighted that Dr. Pinder will join us as our new provost," said David Nelson, MassArt president. "Her experience in a public university as well as an independent school of art and design, her scholarship and teaching, and her intelligence, humor, and care for our public mission make her an ideal fit for MassArt. She is joining us at a time of remarkable opportunity. I look forward to our partnership in service to the college, her partnership with faculty carrying on the excellence of our academic programs, and her leadership of academic affairs at MassArt."

"Coming to Massachusetts College of Art and Design is the most logical next step for me after being at the School of the Art Institute and then a public research university," Pinder said. "I feel that those experiences were preparing me all along to serve at the only independent public art school in the country, and one whose mission focuses on community enrichment."

Kymberly Pinder's career in higher education spans more than 25 years, in administrative and faculty roles with the University of New Mexico, the School of the Art Institute of Chicago, and Middlebury College, among other institutions. Dr. Pinder has served as the dean of the College of Fine Arts at the University of New Mexico (UNM)

since 2012, overseeing the state's largest fine arts program, which offers more than 30 undergraduate and graduate degrees in the disciplines of art, music, theater & dance, and cinematic arts. She also served as Interim Director and Curator of the UNM Art Museum from 2014 to 2016.

As a scholar and a curator, Dr. Pinder teaches, writes and lectures on representations of religion, history and race in American Art, and has authored multiple books on the subject, most recently *Painting the Gospel: Black Public Art and Religion in Chicago* (2016). Her curatorial projects include "Necessary Force: Art of the Police State" and "Spreading the Gospel: Graffiti and the Public Space as Canvas."

As a mural scholar, Dr. Pinder has always been committed to community engagement and interdisciplinary initiatives. Through a partnership with the city of Albuquerque, she led the founding of the CFA Downtown Studio, which has presented 400 events for a total audience of 8,000 since its 2015 launch, and she spearheaded the creation of an annual all-arts day with events throughout the cities of Albuquerque and Santa Fe with over 200 student participants.

Prior to her appointment at University of New Mexico, Dr. Pinder served as chair of the Department of Art History, Theory and Criticism at the School of the Art Institute of Chicago (SAIC) from 2007 to 2010, and on the SAIC Art History faculty in roles of increasing responsibility since 1996.

Dr. Pinder received her Doctor of Philosophy, Master of Philosophy, and Master of Arts degrees from Yale University, and her Bachelor of Arts from Middlebury College, all in Art History.

As MassArt Provost, Dr. Pinder will lead the academic mission of the college's undergraduate and graduate programs, working with the faculty and academic affairs staff, as well as the college's Academic Resource Center, Registrar, Center for Art and Community Partnerships, and Professional and Continuing Education. She will also oversee the Bakalar & Paine Galleries, which presents professionally curated exhibitions by some of the most influential emerging and well-known artists on the contemporary art scene.

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#### About Massachusetts College of Art and Design

Massachusetts College of Art and Design (MassArt) is one of the top colleges of its kind in the United States. Founded in 1873, MassArt has a legacy of leadership as the only freestanding public college of art and design in the country and the nation's first art school to grant a degree. The College offers a comprehensive range of undergraduate and graduate degrees in art, design, and art education, all taught by world-class faculty. MassArt is also home to the Bakalar & Paine Galleries, the largest free contemporary art space in New England, professionally curated to enrich the academic curriculum and make contemporary art an accessible experience for all. Among MassArt's most accomplished alumni are art dealer Arne Glimcher, designer Brian Collins, Oscar-winning set designer Nancy Haigh, visual artist and composer Christian Marclay, *Project Runway* Season 15



winner Erin Robertson, interior and lifestyle designer Kelly Wearstler, and photographer William Wegman. For more information, visit [massart.edu](https://massart.edu).