University of Massachusetts Amherst
Department of Architecture

Architecture Program Report for 2016 NAAB Visit for Continuing Accreditation

Master of Architecture [non pre-professional + 87 credits]
Master of Architecture [pre-professional + 57 credits]

Year of the Previous Visit: 2010
Current Term of Accreditation: 6 years (with a focused evaluation in 2012)

Submitted to: The National Architectural Accrediting Board
Date: 1 September 2015
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Section 1. Program Description

In this section of the APR, the program introduces itself to the team through its responses to Part I of The Conditions for Accreditation:

I.1.1 History and Mission

University of Massachusetts Amherst

The University of Massachusetts Amherst, the flagship campus of a five-campus public university system, was founded in 1863 as a consequence of the Morrill Land Grant Act. As a land-grant university, UMass Amherst's mission is to provide teaching, research and public service to the nation as a whole and to the citizens of Massachusetts in particular. This mission, as interpreted to address the challenges of the twenty-first century, remains as true today as it was when the institution opened its doors as the Massachusetts Agricultural College in 1867. In 2007 UMass Amherst celebrated its sixtieth anniversary as a university. In 1947, with an increased enrollment of returning veterans and the need to provide many of them with education in engineering and business, the Massachusetts State College (as it had been called since 1931) expanded its curriculum to offer more courses in both professional and liberal arts and sciences programs. It received permission from state authorities to change its name to the University of Massachusetts in order to reflect more accurately what the institution had become. In 1962 it was granted fiscal autonomy by the state legislature and major infusions of state support in the next decade allowed the campus to grow from 7,676 students in 1962 to over 24,000 FTE students in fall 2008. UMass Amherst today is the only public institution in Massachusetts with a Carnegie Foundation designation for "very high research activity" and that foundation has also awarded the campus its Community Engagement classification. UMass Amherst's aspiration to achieve excellence in teaching, research and public service is consistent with its history, and this history informs every planning exercise the campus undertakes.

Located in the historic Pioneer Valley of Western Massachusetts, the 1,450-acre campus provides a rich cultural environment in a rural setting. The University is one of the founding members of the Five College cooperative program, offering reciprocal student access among the University, and Amherst, Hampshire, Mount Holyoke and Smith colleges.

The University of Massachusetts Amherst is the flagship campus of the Commonwealth's university system. There are three other undergraduate campuses, at Boston, Dartmouth and Lowell. The University's Worcester Medical School includes the medical school and associated teaching hospital.

Mission

In October of 2012, a Joint Task Force on Strategic Oversight (JTFSO) was charged to "make recommendations to the Chancellor with respect to a high-level Strategic Plan" to be submitted to the New England Association of Schools and Colleges (NEASC) as part of the campus's fifth-year interim accreditation report in August 2013. JTFSO is a group of 31 faculty, staff, and students appointed by the Chancellor and the Faculty Senate to lead the planning effort. That group, together with numerous committees and subcommittees, produced a draft of a first phase document that was put before the campus for review and comment during the spring semester of 2013. The executive summary is paraphrased below:

I. Context and Vision

Innovation and Impact: An Enduring Mission

UMass Amherst is a great public research university, with a vision that is rooted in our founding and that still resonates with our many stakeholders. Through the generations,
creating public impact through innovation has been our guiding vision. It remains so today. This is our enduring vision. But what is required to keep that vision fresh as we open another chapter in our development?

Renewing the Vision: Forging a New Model for Success

We recognize that our university, like society at large, faces economic, demographic, and technological imperatives that demand innovative solutions. One of the greatest challenges we face is that our basic organizing model — the convergence of immersive, residential undergraduate and graduate education in a rich research environment — may not be sustainable if it cannot adapt. We have now reached a juncture — long in the making — at which a new approach is needed, one that will call on us to change in two ways:

1. First, we must become more effective at demonstrating value to those who hold a stake in our success.
2. Second, we must learn to operate effectively in a new and more challenging resource environment.

Demonstrating Value. To us, the value of what we do may seem self-evident. But as we make plans for the future we need to refine, reassert, and reinforce our value as a university in the public interest. If we are to become more effective at building support for our institution then we must continue to make sure that the public understands and believes in our impact. Traditional indicators of quality — research funding, doctoral production, and faculty recognition by national organizations — obviously remain relevant, but increasingly are incomplete. Considerations of undergraduate success and broader societal impact have now also become essential to attracting investment to public research universities.

Marshaling resources. The business model for the flagship research university has frayed. Growth in federal research dollars has stalled. State appropriations for higher education have declined in real terms. This in turn has resulted in significant increases in tuition and fees, yet universities are under increasing pressure to control costs. Many public universities have turned to enrollment — especially of non-resident students — as a replacement source of revenue. This can pay off, especially in the short term, but we cannot indefinitely add to the student burden. Expanding our revenue base remains important, but will not by itself set us on a sustainable path. We must also change our cost structure through innovations in pedagogy and the effective use of technology, and through other efforts to focus resources and control costs.

Guiding principles. Our value to society is ultimately rooted in the beliefs and guiding principles that define what we stand for and make us worthy of support: excellence; leadership, innovation, discovery and impact; engagement; diversity, equity and inclusiveness; opportunity; openness and integrity; and integration and collaboration.

Complete report is available at https://www.umass.edu/provost/strategic-planning

Department of Architecture

The Department of Architecture is part of the College of Humanities and Fine Arts. The department is responsible for an undergraduate degree (BFA-Architecture), a graduate professional degree (Master of Architecture), a graduate post-professional degree (Master of Science in Design), and a graduate degree in historic preservation shared with the Department of History (Master of Science in Design in Historic Preservation).

In 1972, UMass founded one of the first professional interior design programs in the United States. The program developed a rigorous interior design curriculum based on the principles of the Bauhaus.
After being accredited in 1976 the design program moved into the Department of Art in the College of Humanities and Fine Arts in the belief that design should be based on a foundation of visual arts. In 1987 the Faculty Senate and Trustees authorized the design program to offer a concentration in Architectural Studies.

In the mid-1990s, the design program underwent a substantial re-organization, with the hiring of several new full time faculty—all registered architects. In 2002, UMass was granted NAAB candidacy status for a proposed 4+2 Master of Architecture programs, and a 3 year Master of Architecture. In the same year, the program relinquished FIDER accreditation of the BFA Design program. In 2004, the Massachusetts Board of Higher Education approved the Master of Architecture as a UMass degree program. In 2005, the department of was reorganized into three distinct programs—Architecture+Design, Art History, Studio Arts. The name of the Department of Art was changed to Department of Art, Architecture, and Art History in 2009. In 2014, the 3 programs became independent departments.

UMass Amherst has several strong programs in fields closely associated with architecture. The Department offers two dual degrees with the Department of Landscape Architecture and Regional Planning. Collaborative degrees with the Building and Construction Technology program have strong emphases on innovative construction technology in the building industry. The Department of Engineering offers a professional practice graduate degree geared towards professions like architectural engineering. The Department of the History of Art and Architecture offers the only publicly funded Master of Arts in New England, and the Department of History has established a historic preservation concentration in their Public History program.

UMass is part of the Five Colleges --the country’s oldest and most effective consortium of colleges. The group includes Smith, Amherst, Mt. Holyoke, and Hampshire Colleges, in addition to the university. The four colleges have initiated architectural programs within the context of liberal arts education. The program in studio architecture at Smith College is the longest-running program in architecture for women in the country. The Five Colleges have developed a unique interdisciplinary Architectural Studies program that capitalizes on each college’s unique approach to liberal and professional education.

Because the UMass Master of Architecture program is the only state-funded professional architecture program in New England, the regional student program enables students throughout New England to participate in both the undergraduate pre-professional program and the graduate professional program for a little over in-state tuition rates.

I.1.2 Learning Culture

The program must demonstrate that it provides a positive and respectful learning environment that encourages optimism, respect, sharing, engagement, and innovation between and among the members of its faculty, student body, administration, and staff in all learning environments, both traditional and nontraditional.

The program must have adopted a written studio culture policy and a plan for its implementation, including dissemination to all members of the learning community, regular evaluation, and continuous improvement or revision. In addition, the plan must address the values of time management, general health and well-being, work-school-life balance, and professional conduct.

The Department of Architecture prepares students for a rapidly evolving and complex profession and to nurture creative/critical technology skills in general. Students are introduced to a variety of ideas and contemporary issues through the diversity of the faculty, guest critics and lecturers, and are prepared for the professional world through courses in professional practice, contact with practicing professionals, work experience and the final year of directed study.
The nature of design studio instruction challenges students to resolve conflicting issues through a creative process of reflection, imagination and personal commitment. While each instructor administers his or her own studio, the program is committed to the belief that students should have freedom to examine, explore and express issues in accord with their personal understanding and beliefs. Students are expected to utilize the knowledge and principles gained in their other classes in defining, clarifying and solving problems in the studio. The master’s project (thesis) sequence instills personal initiative, provocative thinking, and professionalism.

The student body is composed of intelligent, motivated and articulate students of significant diversity. Architecture students consistently demonstrate a high level of energy, participation, and camaraderie which perseveres over facilities constraints. In the past three years, students have formed a university supported Student Architecture Society and a chapter of the American Institute of Architects (AIAS). Students are prepared for a lifelong process of intellectual exploration, reflection, and development through dedicated faculty, an active campus life, and a supportive professional community. Collaborative projects are stressed throughout the curriculum to encourage students to cooperate, share decision making, and collaborate with each other.

The program has adopted a policy on studio environment, in response to the AIAS report on *The Redesign of Studio Culture*. Gallery reviews, invited desk crits and public juries are designed to respect students’ diversity, distinctiveness, self-worth and dignity. Architects, planners, and landscape architects are frequently invited to studios to give desk crits, sit on studio reviews and participate on final project/thesis reviews. The faculty invites guest critics, jurors, and lecturers who represent a diversity of viewpoints, who will help enhance a nurturing yet critically rigorous environment. Review dates and topics are often sent to the Western Massachusetts AIA.

The department has taken specific measures to expose students to the national and international context of practice. There is a strong commitment in the program to provide students with the opportunity to visit and, therefore, begin to understand other cultures. Student participants disseminated the work of their semester abroad through an exhibit. Also, trips to important cities are organized as part of studios and during breaks.

The department has also sponsored several significant conferences since the last visit. At each conference practitioners and academics from North America present papers, keynote lectures, and participated in panel discussions. The program also sponsors occasional public lectures by prominent architects, landscape architects, urban designers, and critics.

**I.1.3 Social Equity:**

*The program must have a policy on diversity and inclusion that is communicated to current and prospective faculty, students, and staff and is reflected in the distribution of the program's human, physical, and financial resources.*

UMass Amherst and the Department of Architecture are committed to the goals and objectives of affirmative action and strive to maintain diversity with its student population. The University of Massachusetts Amherst prohibits discrimination on the basis of race, color, religion, creed, sex, age, marital status, national origin, mental or physical disability, political belief or affiliation, veteran status, sexual orientation, gender identity and expression, genetic information and any other class of individuals protected from discrimination. In addition, admission into the department is made on the basis of academic potential and according to enrollment limitations. These criteria focus only on the quality of the student and their potential to succeed in the program. The enrollment limitations are a function of our ability to deliver quality instruction within the constraints of limited resources and space.

Students are recruited through active counseling with prospective students and parents, and participation in career days programs. The program has made aggressive efforts to recruit students
from underrepresented groups. Every effort is made to point out the specific opportunities for success, availability of financial aid and scholarship funding. The program has been somewhat successful in making connections with high schools community colleges in attracting diverse transfer students. Faculty members have worked in Holyoke and Springfield to make community links, and to encourage students from underrepresented students to attend UMass.

In order to increase and enhance the overall diversity of the graduate student body and provide access for those graduate students who have been disadvantaged for financial reasons, the Graduate School offers some financial support to qualified students who have been historically underrepresented in graduate education. The ALANA, Diversity and Opportunity Program of the Office of Graduate Student Recruitment and Retention (OGSRR) works to accomplish this goal by providing financial assistance to qualified students on a competitive basis in cooperation with the academic departments. In most cases the financial assistance carries a full tuition waiver. Only U.S. citizens or permanent residents qualify for this program.

The Department and University are committed to equality and diversity in all areas of its operations. The following policy was approved in 2005:

**Affirmative Action and Nondiscrimination Policy**

The University of Massachusetts Amherst prohibits discrimination on the basis of race, color, religion, creed, sex, age, marital status, national origin, mental or physical disability, political belief or affiliation, veteran status, sexual orientation and any other class of individuals protected from discrimination under state or federal law in any aspect of the access to, admission, or treatment of students in its programs and activities, or in employment and application for employment. Furthermore, University policy includes prohibitions of harassment of students and employees, i.e., racial harassment, sexual harassment, and retaliation for filing complaints of discrimination. Affirmative action in employment is required for women; racial and ethnic minorities; special disabled veterans, veterans of the Vietnam-era, and any other veterans who served on active duty during a war or in a campaign for which a campaign badge had been authorized; and individuals with disabilities in order to address under-representation in the workforce.

Detailed university policy governing academic appointment, rank, promotion and tenure are described in the UMass web site. The Equal Opportunity Affairs guides faculty searches. The Department is making conscious efforts to diversify its faculty.

**I.1.4 Defining Perspectives:**

The program must describe how it is responsive to the following perspectives or forces that affect the education and development of professional architects. The response to each perspective must further identify how these perspectives will continue to be addressed as part of the program’s long-range planning activities.

**A. Collaboration and Leadership.**

The program must describe its culture for successful individual and team dynamics, collaborative experiences and opportunities for leadership roles.

The core of the Master of Architecture education is the unique studio-based instruction that is highly individualized while creating opportunities for community building. Students typically meet twice weekly with their studio instructor, creating an interactive, individualized, supportive relationship with faculty. All students who major in architecture have their own desks located within their studio cohorts. Students use these stations to work on individual projects as well as to work together with their fellow students. Architecture students learn how to focus on individual work and also enlarge their individual efforts
through work with a larger peer cohort, a critical skill in a profession that requires individual creativity plus multi-discipline collaboration.

Students are also required to take classes throughout the university from faculty in different departments and different schools. This unique curricular design is founded on a reflection of architecture as an integrated profession. Architecture students have the opportunity to learn the distinct ‘languages’ and attitudes they will need to integrate as professionals in this multi-disciplinary field.

The Department’s core studio courses feature hands-on projects that address complex disciplinary questions and real-world problems. As designers, students are asked to critique and analyze not only the given project, but also to enlarge and reframe the project parameters or problem-space. Additionally, nearly every project asks students to breakdown pre-conceived ideas, to analyze existing precedents, to investigate a variety of design methodologies, and to link abstract and critical thinking skills to concrete realizations.

B. Design.
The program must describe its approach to developing graduates with an understanding of design as a multidimensional process involving problem resolution and the discovery of new opportunities that will create value.

The department teaches concept-based design. Students approach their work with the understanding of concept as the generating force behind design from the early stages of development through the later more detailed tectonic stages. The conceptual strength is ultimately the strongest basis for addressing the full range of theoretical and practical concerns. The faculty strives to create a positive learning environment in which all students can discover and develop their own process and design methodologies.

The relationship between theory and practice in the architectural academy is a persistently debated topic. Architecture programs strive to maintain a delicate balance between liberal arts, research, and pre-professional preparation. In the undergraduate program, this issue may be particularly confusing to students as they are enrolled in a liberal arts degree, not an accredited program. To become licensed professionals, they must complete a graduate degree. Thus, our curriculum forms an introduction to both design thinking as a way of solving complex interconnected problems, as well as design practice as a profession.

C. Professional Opportunity.
The program must describe its approach for educating students on the breadth of professional opportunities and career paths, including the transition to internship and licensure.

Preparation for registration is an important part of the curriculum. Course work in design, history, technology, planning, and practice prepare students to meet requirements for registration. The studio sequence is predicated on the idea that skill and proficiency in a profession are achieved through repeated exercises of continually increased complexity and scale. Parallel to and linked with this development of creative problem solving skills are the courses in technical systems, materials and construction, structures and professional practice.

Issues of internship, registration, and continuing education are an integral part of required professional practice courses. Professional conduct is discussed throughout the curriculum, particularly in design studios and in professional practice classes—it is a particular emphasis of the required graduate community studio. Furthermore, the UMass student handbook sets principles for academic and professional conduct.

One faculty member sits on the Massachusetts Architecture Registration Board. (The Board typically meet at UMass once a year—the only time it convenes outside of Boston).
D. Stewardship of the Environment.
The program must describe its approach to developing graduates who are prepared to both understand and take responsibility for stewardship of the environment and natural resources.

Architecture addresses the impact of the built environment on individuals and the natural world. The Department teaches the creative process that will enable students to tackle complex interdisciplinary problems of varying scales. Students learn to create a wide range of interventions informed by human and environmental systems. The design process helps people understand and find solutions to complex problems by clarifying the issues, envisioning approaches, conducting research, and enlisting the right stakeholders. Designers are able to creatively connect the three pillars of sustainability—ecology, economy, equity—with aesthetics. Indeed, sensitively designed buildings and communities are the physical manifestations of resiliency.

The Department of Architecture is committed to serving the Commonwealth through projects that support community design projects. The Master of Architecture program trains students to be engaged with issues of local design, planning, and environmentally and economically sustainable communities. Architecture students are exposed, in virtually every class, to ideas and projects that benefit local and regional communities.

E. Community and Social Responsibility.
The program must describe its approach to developing graduates who are prepared to be active, engaged citizens able to understand what it means to be professional members of society and to act ethically on that understanding.

The educational opportunities at the Department of Architecture pay particular attention to the needs of the regional and global society. Opportunities to study specific community-based ecological, political and urban issues are provided in the core architecture curriculum.

Studio projects have a wide range of users and social contexts, and being responsive to the diverse communities that students will engage with once they graduate is an important part of the department’s learning goals. Students are expected to develop an understanding of their obligations to the client, user and society and a measure of the success of their work is judged accordingly. These exercises give them many opportunities to examine their own perspectives and potential for prejudice in light of their peers, their social environment of both the university and the studio, and the appropriate nature of unprejudiced and unbiased professional judgment. Professional and public service is discussed in professional practice case studies involving pro bono work exemplifies the point.

Faculty provide an important role in sustaining relationships with community partnerships and support student learning. Besides providing continuity within the studios for integrative work with community partners, architecture faculty also provide opportunities for students to participate in research and creative activities that involve community engagement and service.

I.1.5 Long-Range Planning:
The program must demonstrate that it has a planning process for continuous improvement that identifies multiyear objectives within the context of the institutional and program mission and culture

In 2014-2015, every academic department at UMass Amherst has participated in a strategic planning process, based on common “prompts”. In the Fall 2014 strategic planning exercise, every department was asked to describe the current state of research and graduate education (“looking in the mirror”), while
focusing the "action agenda" on undergraduate reform plans. For the Spring 2015, the departments looked toward the future of research and graduate education on this campus. The Department of Architecture plans for its undergraduate and graduate programs are included in the supplemental materials. The aims articulated in the Department of Architecture’s strategic plans—a culture of interdisciplinarity, curricular innovation, focused research domains, student and faculty recruitment, public outreach and communication—establish a strong correspondence between and among the institutional goals and aspirations of UMass Amherst and the five NAAB perspectives.

I.1.6 Assessment

A. Program Self-Assessment:

The program must demonstrate that it regularly assesses the following:

- How well the program is progressing toward its mission and stated objectives.
- Progress against its defined multiyear objectives.
- Progress in addressing deficiencies and causes of concern identified at the time of the last visit.
- Strengths, challenges, and opportunities faced by the program while continuously improving learning opportunities.

The program must also demonstrate that results of self-assessments are regularly used to advise and encourage changes and adjustments to promote student success.

The process of self-assessment is continual and well developed within the Department of Architecture. A number of methods are used for self-evaluation and reflection on future directions. Among these are university reviews; program committees; ad-hoc committees and task forces; group and individual meetings between administrators, faculty and students; the program's advisory council; regular feedback from alumni/ae and other professional; meetings with administrators and faculty of other accredited programs; previous accreditation reports.

Committees: The department aims to institute the most appropriate and effective faculty assignments and committee responsibilities. The guiding principles are to develop the minimum number of committees to accomplish the necessary tasks. The new department has a standing Personnel Committee, elected by the faculty, which plays a large role in advising faculty and the chair.

The following groups in the University are involved to some degree in assessment of the Program:

- Faculty Senate: The Faculty Senate is a legislative body of elected faculty members, librarians and ex officio senior academic administrators who hold faculty rank. The Senate approves new courses and academic programs; it develops, recommends and reviews policy on a broad array of issues that affect faculty, staff and students.

- Heads and Chairs: The department chair sits on the heads and chairs council of the College. The council addresses management and administration issues of the College as well as broader perspectives regarding the direction of the university.

- Graduate and Undergraduate Councils: The Senate graduate council, in consultation with college and the Dean of Graduate Studies is responsible for maintaining and enhancing the quality of graduate education in the University and its graduate centers. The undergraduate council is responsible for maintaining and enhancing the quality of undergraduate education in the university and its campuses.

Other outside organizations which are influential in our assessment include: local and regional chapters of the AIA and who regularly assess our successes and opportunities; the Massachusetts registration board; and academic associations, including ACSA, in which faculty are actively involved
regionally and nationally. Involvement in association conferences always generates much discussion about what and how we teach and how that compares to other programs.

Faculty peer review is a function of the tenure process, and the more informal collegial interaction of the faculty within the Program, Department and University. Faculty also regularly and successfully submit papers and creative work for juried review, and enjoy close interaction with practicing professionals and alumni/ae through juries and lectures.

Alumni/ae often participate in the student assessment process within the department. They come for reviews in design classes at many levels, and give invited lectures. They assist students with projects that involve professional consultations.

An Advisory Council assists the program as community, professional and university liaisons. The Council assisting the director and faculty participates in the assessment process.

B. Curricular Assessment and Development:

The program must demonstrate a well-reasoned process for curricular assessment and adjustments and must identify the roles and responsibilities of the personnel and committees involved in setting curricular agendas and initiatives, including the curriculum committee, program coordinators, and department chairs or directors.

The Architecture faculty as a whole approves new courses and course revisions. When proposing a new course, faculty are required to submit a syllabus, an explanation of how the proposed new course relates to school mission and goals, and an explanation of the impact on teaching loads.

Concerns and proposals may come from any individual or group, and find their best route for evaluation, be that a standing committees or special task force. An issue may ultimately come before the full faculty in Program for open discussion and resolution.

Course evaluations are conducted for each class every semester through a standardized questionnaire. These evaluations of faculty performance are used to improve faculty teaching effectiveness and play a major role in part-time re-hiring decisions.

The student body is small enough that issues needing discussion and action can be handled either within the studios of a particular year, or by individual conversations with faculty and administrators. Architecture student organizations participate in policy-making issues as well as social and organizational events.

The Department seeks to develop within students a wide range of capabilities that will prepare them for leadership roles. Students are asked to think critically, to gather and examine large amounts of information, to define problems, to analyze, to explore alternatives, to synthesize, and to then communicate those ideas and solutions in a clear and professional manner. Evaluations are based on these criteria, and therefore include both process and outcome.

UMass Office of Institutional Research typically surveys all graduating graduate students. A summary of the responses from Master of Architecture students is as follows:

<table>
<thead>
<tr>
<th>Question</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, how would you rate the quality of your academic experience?</td>
<td>4.15</td>
</tr>
<tr>
<td>If you were to start your master's over again, would you select UMass?</td>
<td>3.42</td>
</tr>
<tr>
<td>Intellectual quality of the faculty</td>
<td>4.38</td>
</tr>
<tr>
<td>Overall quality of graduate level teaching by faculty</td>
<td>4.15</td>
</tr>
<tr>
<td>Overall program quality</td>
<td>3.92</td>
</tr>
<tr>
<td>Academic advising and guidance in your program</td>
<td>3.77</td>
</tr>
</tbody>
</table>

Most of the responses are 1 standard deviation above the mean for all departments at UMass.
The UMass Board of Trustees requires a periodic review of all departments and programs through the Academic Quality Assessment and Development (AQAD) process. Each academic program conducts a self-study on a seven year cycle and an external review visiting team conducts a review of the program. Academic Departments are required to review various sources of evidence regarding productivity and quality and incorporate analysis of these results into their self-study. The AQAD team last visited the [then] Architecture Program in 2012, and interviewed faculty, student and alumni. Among the team’s key recommendations:

1. We recommend departmental status for the program possibly with building and construction technologies. The new department and school affiliation would not only benefit from collaborative planning and recruitment but also could develop shared services and tools that would augment students and faculty research alike. Such resources as a fabrication laboratory, an advanced digital representation lab, large-scale construction assembly lab, and other common resources would service the participants in the school and also augment tools available to the entire campus.

2. We recommend the architecture program conduct a planning exercise with the Dean to determine its appropriate size for the foreseeable future. ‘

3. The planned new building would be a real asset to the program. It would bring into proximity several of its closest disciplines – landscape architecture, building construction technology, and regional planning – and resolve shortages and quality of space issues

4. We recommend the adoption of a mandatory student computer purchase policy. There is also a need to have computing labs within close proximity of studios. The students rightfully complained about the challenges of carrying physical models and large format drawings to computer labs removed from studios to perform computing work. Current architectural practice, the situations students will confront when entering the work force, require the seamless integration of all media.

5. We recommend the program begin an orientation program for all new students to introduce undergraduates and graduates to the study of architecture, available services, campus resources, etc. This would ease the transition for new students entering a professional program.

6. We recommend the College explore a distributed model for IT services within the College. Computing needs and use are asymmetrically utilized across the College’s disciplines.

7. We recommend that the architecture program assume a leadership role on campus for active learning and creative problem solving practices.

In fall 2014, the Office of Academic Planning and Assessment (OAPA) ran a Focus Group for the Department. The department sent an invitation for student participation and scheduled the focus group in a time slot just prior to regularly scheduled meeting of one of the department’s upper level courses. Staff from OAPA conducted one focus group that lasted 1 hour and 15 minutes. A total of 15 undergraduate, graduate, and alums participated. The recommendations helped shape the strategic plans, which are included in the supplemental material.

To support academic planning, the staff from the Chancellor's Office, Provost's Office, Undergraduate Affairs, Graduate School, Institutional Research, and Assessment collaborated on developing data salient to the campus's planning priorities, supplementing the department-level data already provided on the institutional research website. The site also provides links to the unit planning guidelines and prompts.
Section 2. Progress since the Previous Visit

In this section the program must document all actions taken since the previous visit to address Conditions Not Met and Causes of Concern cited in the most recent VTR.

CONDITIONS NOT MET [2010 Report]

13.14 Accessibility
There is insufficient evidence that all students achieve the ability level of Accessible design. While there is some evidence that students are aware of accessibility issues, the design projects and integration projects fall short of demonstrating that all students achieve this at the ability level. In particular, there is a lack of evidence that students have the ability to design for site accessibility, and show inconsistent ability on door swings, bathrooms and ramps even within the same project.

Program Response (2010-2015): Accessibility is more systematically addressed in Graduate Design II, and in the Graduate Design IV/Integration sequence.

13.20 Life Safety
There is insufficient evidence that students consistently achieve the understanding level of Life-Safety. Too many projects have dead end corridors, and were missing stair egress from upper levels. Large rooms often lacked multiple exits, door swings were in the wrong direction, and many stairs lacked the proper fire enclosure or did not exit directly to the outside.

Program Response (2010-2015): Life safety is more systematically addressed in in the Graduate Design IV/Integration sequence.

13.25 Construction Cost
The team could not find sufficient evidence that students acquire the understanding level of Construction Cost Control. Business of Building no longer has this in the syllabus, and no student quizzes, papers or tests were provided that shows this is covered. Some aspects are touched on in ARCH-DES 670: Integration, as well as in ARCH-DES 550: Tectonics I, but not enough to show sufficient evidence of understanding in building cost, life-cycle cost, and construction estimating.

Program Response (2010-2015): Construction Cost is more systematically addressed in the Graduate Design IV/Integration sequence.

13.28 Comprehensive Design
The team could not find sufficient evidence in ARCH-DES 602: Comprehensive Design or in ARCH-DES 700: Integration, that all students are achieving the ability level of Comprehensive Design. While integration covers several of the independent SPC’s well, there is not evidence of students ability to produce a comprehensive project.

Of particular note was lack of structural definition, accessibility issues, site integration, life safety, and section development on designs in ARCH-DES 602. While there was additional design development of key details and material assemblies in ARCH-DES 700, errors in life-safety, structure, or accessibility were repeated in most cases.

Program Response (2010-2015): Comprehensive design is more systematically addressed in the Graduate Design IV/Integration sequence.
CAUSES OF CONCERN [2010 Report]

A. Specific Conditions

While the three conditions listed below are met currently, the team is concerned that what is being done today is not sustainable for the future. Therefore, the team feels it is important to monitor the progress in these three areas and to ensure the continued evolution and success of the program.

Condition 8. Physical Resources – See the discussion under this condition.
Condition 10. Financial Resources – See the discussion under this condition.
Condition 11. Administrative Structure – See the discussion under this condition.

Condition 8. Physical Resources

Program Response (2010-2015): In September 2012, the UMass trustees approved $52 million in capital funds for a new building to house the Department of Architecture, the Department of Landscape Architecture and Regional Planning, and part of the Building and Construction Technologies Program. Completion of the building is scheduled for March 2017.

In the meantime, the Department has taken steps to address some of the other concerns of the visiting team. All architecture studio students (including lower division undergraduates) now have dedicated work stations. The Program has purchased a new plotter and a laser cutter for student use. The Program is implementing a laptop requirement for its students.

Condition 10. Financial Resources

Program Response (2010-2015): Since the last visit, 4 net new tenure-track faculty have joined the department (including 2 positions that are shared with other departments or colleges). The program also has completed a national search for a tenure track faculty member in digital media and design, to replace a tenure-track faculty member who left the university.

The total head count of tenure-stream faculty in Architecture—including the two new shared positions—has increased from 7 to 11 since the 2010 visit. The Department has also been approved to hire a full time lecturer, who will serve as undergraduate advisor, and a department manager.

Condition 11. Administrative Structure

Program Response (2010-2015): The new Department of Architecture was approved in 2013 and launched in Fall 2014.

B. Advising

As noted above under —Other Concerns and in Conditions 1.2 Architectural Education and Students and 7 Human Resource Development below, advising continues to be a concern. The program needs to consult the student body and determine what advising issues and needs exist – both curricular and career development – and directly address them.

Program Response (2010-2015): Since the last visit, 2 faculty have been assigned duties as graduate program directors—Kathleen Lugosch for the Master of Architecture and Max Page for the Master of Science in Design. While the Department understands that it can continue to improve, graduate student satisfaction regarding advising has steadily climbed since the last visit.

C. Studio Culture
While the program has a strong studio culture exhibiting the values of respect, empathy, sharing, engagement, and innovation – as noted in under Condition 1.2 Architectural Education and Students and Condition 5 Studio Culture – the policy as it exists is more a studio management and cleanliness document than an active, engaging set of guiding principles and values. The program should work with the students to develop a policy that articulates what is currently occurring and facilitate its implementation.

Program Response (2010-2015): The Architecture faculty and students developed a new Studio Culture Policy during the 2011-2012 academic years. That policy was approved by the program in May 2012.

D. SPC
Several of the SPCs, while met, need to be monitored. Specifically, Condition 13.15 Program Preparation and Condition 13.16 Site Conditions – See the discussion under these SPC.

Program Response (2010-2015): These issues are more systematically addressed in the Graduate Design IV/Integration sequence

Section 3. Compliance with the Conditions for Accreditation

In this section of the APR, the program must describe how it meets the conditions for accreditation found in Part I.2-Part II.4. These conditions will be assessed and evaluated by the team in advance of and during a visit. The team’s findings and assessments will form the core of the Visiting Team Report.

I.2.1 Human Resources and Human Resource Development

Faculty and Staff

In Fall 2014, there were 11 full time tenured and tenure-track faculty in the Department of Architecture for Fall 2014 . Two of these faculty hold joint appointments in other departments or colleges. All Building and Construction Technologies faculty are affiliate faculty in the Department of Architecture. The full-time faculty resumes are included in the supplemental material.

Of the 11 tenured and tenure-track faculty, four are professors, three are associate professors, and four are assistant professors. Two hold Ph.D. degrees, and seven are registered architects in Massachusetts. Eight of the 11 are female. Part-time numbers fluctuate each year but currently totals 4 individuals.

The Department of Architecture is, by its very definition, interdisciplinary. Architecture students, and faculty participate in a full spectrum of connections across disciplines: courses, programs, events, activities, research grants, among others were regularly cited as examples of interdisciplinary collaboration. Faculty from four UMass colleges work together actively to formulate courses and course work that extend students’ abilities to approach all aspects of design in an innovative but rigorous manner.

The department is an integral part of the Five Colleges Architectural Studies program that capitalizes on each college’s unique approach to liberal and professional education. The four colleges have created architectural studies majors within the context of liberal arts education. The program in studio architecture at Smith College is the longest-running pre-professional architecture program in architecture for women in the country. These connections enable the department to effectively share faculty, guest lecturers, exhibitions, symposia, and other resources.
Teaching loads are typically two courses per tenure-track faculty member per semester, which is a standard at peer departments. Studios are valued at 4-6 credit hours each, so some design faculty teaches up to 10 credits/semester.

Strategic Research/Creative Work Domains

**Integrative Design**

Current external research grants include NCARB Award for the Integration of Practice and Academy ($25,000) for the project “Voices from the Field: From Design Concept to Reality” (Investigators: Caryn Brause and Kathleen Lugosch). Internal funding includes Healey Endowment Grant ($12,180) for the project “The Designer’s Field Guide to Collaboration”, as well as a project grant ($4,000) from the College of Humanities and Fine Arts (Investigator: Caryn Brause). The major publication that is currently underway is a book titled *The Designers Field Guide to Collaboration*, authored by Caryn Brause and published by Routledge, Taylor and Francis. Research articles have been published in journals, such as *Journal of Architectural Education*.

**High-Performance Buildings and Resilient Design**

Current research funding includes start-up funding from the College of Humanities and Fine Arts ($112,000), which is being utilized to establish research on advanced building technologies (Investigator: Ajla Aksamija). Recent activities include organization of the Architectural Research Centers Consortium (ARCC) 2015 Conference, chaired by Ajla Aksamija. The conference was organized in collaboration with the international design firm Perkins+Will, and resulted in publishing of publicly available conference proceedings book, *Future of Architectural Research*. Another major publication that is currently underway is a book titled *Integrating Innovations in Architecture: Design, Methods and Technology for Progressive Practice and Research*, authored by Ajla Aksamija and published by John Wiley & Sons. Research articles have been recently published in journals such as *Advances in Building Energy Research*, *Journal of Green Building*, and the *Journal of the National Institute of Building Sciences*.

**Historic Preservation and Adaptive Reuse**

Current research funding includes Rome Prize at the American Academy in Rome ($20,000) for a project “Deafening Silence: the Legacy of Mussolini in Italy” (Investigator: Max Page). A recent proposal for the National Endowment for the Humanities grant ($150,000) was submitted by Max Page, Joseph Krupczynski and other UMass faculty for a project “Conserving the Commons: Democracy, Ecology, and the Places that Matter”. *Preservation and Sustainability Symposium* is an annual event that has been established in 2011. Also, a recent event, *The Future of Historic Preservation*, is a series of national conversations organized and hosted by UMass Department of Architecture, University of Pennsylvania and the National Trust for Historic Preservation. Two books are currently in preparation, *Why Historic Preservation Matters* (authored by Max Page and published by Yale University Press) and *Fifty Ideas for the Next Fifty Years of Historic Preservation in the United States* (edited by Max Page and Marla Miller, and published by the University of Massachusetts Press).

**Design Engagement**

Current external funding includes City of Holyoke ($35,000) for “Arrivals” project, public art and infrastructure installation (Investigators: Caryn Brause and Joseph Krupczynski), a 2015 UMass Presidents Creative Economy grant ($27,000) for a project “Making Places Matter: Arts, Culture and Community in Holyoke, Massachusetts” (Investigators: Joseph Krupczynski and Max Page) and Fulbright-Nehru Senior Research Fellowship ($26,000) for community design and engagement project in India (Investigator: Carey Clouse). Internal funding includes UMass Amherst Faculty Research Grant ($11,202) for a project titled “Farming Cuba” (Investigator: Carey Clouse). A book titled *Farming Cuba: Urban Agriculture from the Ground Up* has been recently authored by Carey Clouse and published by Princeton Architectural Press. Research articles have been published in journals such as *Journal of Landscape Architecture*, *Architectural Review*, and the *International Journal of Interior Architecture and Spatial Design*. 
The Department of Architecture also plans to develop new graduate programs, with concentrations in the above described research areas, in order to strengthen the integration of research and teaching. Specifically, new concentrations and dual degrees for the Master in Architecture and Master of Science in Design programs will be established that align courses and research opportunities with the research areas of the Center. The Department also plans to develop an interdisciplinary doctorate program in collaboration with the other departments (BCT and LARP), which would also link educational and research opportunities for students and faculty members.

Architectural Licensing Advisor:

The Architectural Licensing Advisor is Caryn Brause AIA, who won the NCARB Award in 2014 and was keynote speaker at the NCARB annual meeting in 2015. Also, Stephen Schreiber is a member of the Massachusetts architecture licensing board and Chair of Region 1 of NCARB. They both are trained in the issues of IDP, regularly communicate with students, fulfill the requirements as outlined by NCARB, and regularly attend ALA training and development programs.

Professional Development:

The core studio faculty is composed of individuals with notable cross-disciplinary skills, in studio arts, interior design, engineering, digital media, planning. Most studio faculty are licensed (or certified) in their discipline and maintain practices.

UMass has offers sabbatical to tenure stream faculty. Faculty members with at least six years of full-time service may be granted sabbatical leave as follows. For those on academic year appointments: a) two consecutive semesters at half salary, or b) one semester at full salary, or c) two non-consecutive semesters at half salary. For those on calendar year (or “A”) appointments: a) eleven consecutive months at half salary, or b) five-and-one-half months at full salary, or c) two non-consecutive five-and-one-half month periods at half salary. For teachers, the leave shall coincide with the semesters of the academic calendar.

The College of Humanities and Fine Arts offers generous start up support for new faculty, typically in the $15,000 range (for 3 years) to support research, travel, graduate assistants, equipment.

The Provost and the Dean of the College of Humanities and Fine Arts support the Research Intensive Semester (RIS) program developed in collaboration with the Massachusetts Society of Professors. The program gives HFA departments the ability to offer tenure-track junior faculty members who meet the eligibility requirements a “research-intensive semester” during which they can focus on those projects critical to their upcoming tenure review. In this context, the word "research" to include a broad range of creative and scholarly work.

Student Support

Students meet with Architecture advisors upon entry into the program; often pre-entry students begin to discuss program directions with the faculty prior to being admitted. Faculty are available to meet with graduate and undergraduate students both informally and on formal advising days. The Arts and Sciences, Undergraduate Advising and Academic Support Center (UAASC) staff advises students on general education requirements and the Undergraduate Program Director for the Department of Architecture counsels pre-majors regarding course work. In addition, faculty members have posted office hours and are available by appointment. Students each develop an individual ‘contract’ based on requirement check sheets, assisted and approved by the faculty and the department. This enables us to more closely track the progress of individuals, who may have widely varying requirements to fulfill depending on their status, particularly as transfers.
The Department has established a network of advising including:

- Chair: Stephen Schreiber
- Undergraduate director: Stephen Schreiber
- MArch director: Kathleen Lugosch
- MS Design director: Max Page
- Faculty advisors: All faculty

Professional mentorship program: Local professionals

The University of Massachusetts provides an extensive array of services to ensure student support throughout their university experience. These are listed below.

- Bilingual Collegiate Program
- Career Services
- Committee for the Collegiate Education of Black and other Minority Students
- Dean of Students Office
- Dr. Josephine White Eagle Cultural Center
- ESL Program
- Everywoman's Center
- Financial Aid Services
- Housing Services
- International Programs Office
- Jewish Affairs
- Latin American Cultural Center
- Malcolm X Cultural Center
- Mental Health Services
- Multi-Cultural Greek Council
- National Pan-Hellenic Council
- Native American Student Support Services
- New Students Program
- Office of ALANA Affairs
- Parent Services
- Public Safety
- Spiritual Life
- Stonewall Center
- Student Activities Center
- Undergraduate Admissions
- United Asian Learning Resource Center
- University Health Services
- Yuri Kochiyama Cultural Center

Field trips and off campus opportunities

Students are encouraged to travel whenever possible. Field trips are frequently organized in association with courses. Field trips over the past years have visited Boston, New York, New Haven, Williamstown/North Adams and many other cities. Many of these trips included tours of architectural offices, city agencies, or construction sites. There are also visits in the more immediate area to brick manufacturing plants, wood-processing mills, local construction sites, and local architects’ offices.

The Department encourages students to participate in international study programs run by UMass or other universities. The Department has an exchange program with the Technical University of Berlin in 2006-07. A small number of students from TUB attend UMass in the Fall, and an equal number of students from UMass attend TUB in the Spring. About one-third of architecture undergraduates participate in foreign study programs.

In Fall 2007, UMass began a chapter of the American Institute of Architecture students. The AIAS hosted the Northeast Quad Meeting in 2012, and 6-18 AIAS members regularly attend AIA forum. In Spring
2009, UMass initiated charter members of its chapter of the national Tau Sigma Delta honor society.

I.2.2 Physical Resources

The Department of Architecture is primarily housed in the 30 year old UMass Fine Arts Center, designed by Roche Dinkeloo. The facility houses all faculty and administrative offices, design studios, small seminar rooms, and a computer lab. Support functions (gallery, woodshop) and lecture halls are housed in other buildings on campus.

The following spaces are utilized solely by Architecture:

<table>
<thead>
<tr>
<th>Studios</th>
<th>Fine Arts Center 433, 434, 435, 436, 437, 438, 441, 442, 443</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture offices</td>
<td>Fine Arts Center 351, 353, 355</td>
</tr>
<tr>
<td>Student lounge</td>
<td>Fine Arts Center 437A</td>
</tr>
<tr>
<td>Computer room</td>
<td>Fine Arts Center 439</td>
</tr>
<tr>
<td>Gallery/Jury</td>
<td>Fine Arts Center Bridge gallery</td>
</tr>
</tbody>
</table>

The following spaces are shared with other programs:

<table>
<thead>
<tr>
<th>Foundations/Shared Studios</th>
<th>Fine Arts Center 429, 430, 431, 432</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Lab</td>
<td>Fine Arts Center 444</td>
</tr>
<tr>
<td>Slide Lecture Room</td>
<td>Fine Arts Center 463</td>
</tr>
<tr>
<td>Seminar</td>
<td>Fine Arts Center 355</td>
</tr>
<tr>
<td>Administrative Support</td>
<td>Fine Arts Center 353, 357, 359, 361, 363, 364</td>
</tr>
<tr>
<td>Copy Room</td>
<td>Fine Arts Center 356</td>
</tr>
<tr>
<td>Wood/Sculp. Shop</td>
<td>Studio Art Building</td>
</tr>
<tr>
<td>Metal Work</td>
<td>Studio Art Building</td>
</tr>
<tr>
<td>Exhibition Space</td>
<td>Herter Gallery</td>
</tr>
</tbody>
</table>

**Fine Arts Center Space Summary**

<table>
<thead>
<tr>
<th>Exclusive use of Architecture</th>
<th>Shared with other Department/UMass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offices/Administration</td>
<td>1750 SF</td>
</tr>
<tr>
<td>Studios—cold seat</td>
<td>9400 SF</td>
</tr>
<tr>
<td>Studios—hot seat</td>
<td>4410 SF</td>
</tr>
<tr>
<td>Conference/class rooms</td>
<td>800 SF</td>
</tr>
<tr>
<td>Computer Lab</td>
<td>550 SF</td>
</tr>
<tr>
<td>Storage</td>
<td>100 SF</td>
</tr>
<tr>
<td>Student lounge</td>
<td>250 SF</td>
</tr>
<tr>
<td>Jury/Exhibition</td>
<td>300 linear feet (hall gallery)</td>
</tr>
</tbody>
</table>

**Studies**: Main studios consist of 9 rooms of approximately 1100 square feet each. All students enrolled in design studios in the professional curricula have 24 hour access to their own workstation with desk, stool. The program is continually trying to upgrade and maintain this equipment. Additional studio space, for students in Foundations, is shared with Art.

**Classrooms**: The Department maintains two seminar/class rooms in the Fine Arts Center.

**Exhibition**: The exhibition space for the program is located outside of the studios in a hall/gallery. Herter gallery and the student union gallery have been used for recent architecture exhibits.

**Faculty offices**: All continuing faculty have private offices.

**Shop**: Students also have access to the Department of Art metal and wood shops.
<table>
<thead>
<tr>
<th>Room</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>370</td>
<td>Dept storage</td>
</tr>
<tr>
<td>365</td>
<td>Seminar room</td>
</tr>
<tr>
<td>368</td>
<td>LARP faculty</td>
</tr>
<tr>
<td>366</td>
<td>Art Hist faculty</td>
</tr>
<tr>
<td>363</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>364</td>
<td>Art faculty</td>
</tr>
<tr>
<td>361</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>362</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>359</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>360</td>
<td>Art faculty</td>
</tr>
<tr>
<td>358</td>
<td>Art faculty</td>
</tr>
<tr>
<td>357</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>355</td>
<td>Department Chair</td>
</tr>
<tr>
<td>356</td>
<td>Department Staff</td>
</tr>
<tr>
<td>353</td>
<td>Dept. reception</td>
</tr>
<tr>
<td>351</td>
<td>Dept Secretary</td>
</tr>
</tbody>
</table>

THIRD FLOOR PLAN

KEY PLAN

1 AUDITORIUM  4 ART
2 THEATER     5 ART STUDIOS
3 MUSIC       6 SPEECH

Area of detail
<table>
<thead>
<tr>
<th>Room</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>462</td>
<td>Storage</td>
</tr>
<tr>
<td>465/463</td>
<td>Seminar room</td>
</tr>
<tr>
<td>460</td>
<td>Art faculty</td>
</tr>
<tr>
<td>458</td>
<td>Art faculty</td>
</tr>
<tr>
<td>461</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>456</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>459</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>457</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>455</td>
<td>Art/Architecture Office</td>
</tr>
<tr>
<td>454</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>452</td>
<td>Architecture faculty</td>
</tr>
<tr>
<td>444</td>
<td>UMass computer classroom</td>
</tr>
<tr>
<td>433-443</td>
<td>Arch studios</td>
</tr>
<tr>
<td>Corridor</td>
<td>Arch gallery</td>
</tr>
<tr>
<td>429-431</td>
<td>Foundations/shared studios</td>
</tr>
</tbody>
</table>
ENTIRE FOURTH FLOOR of FAC
dark gray=exclusive use of Architecture
light gray=support of Architecture

New Building
Construction on a four-story, 87,200GSF Design Building (DB) began in Spring 2015 with a scheduled completion date of Spring 2017. It will be located on the southern portion of parking Lot 62 immediately to the north of Studio Arts Building. It will house three academic programs from three separate colleges in a single facility: Landscape Architecture & Regional Planning from the College of Social and Behavioral Sciences, the Department of Architecture from the College of Humanities and Fine Arts, and the Building Construction Technology program from the College of Natural Sciences. The total project cost is $52 million.

The project exemplifies the University’s commitment to sustainable and innovative design and the pedagogic value of integrating three academic programs. Thanks to a grant through the 2014 Environmental Bond Bill, the DB will also serve as a demonstration of new and innovative wood construction technologies.

The project is financed through the University of Massachusetts Building Authority and is currently in design phase. Construction is scheduled to begin in March of 2015, and the building will be occupied in the spring of 2017.

The DB will integrate the latest wood technologies including a structural system consisting of exposed heavy engineered timber and cross laminated timber (CLT) decking and shear walls. An elegant “zipper truss” will span the two-story high building commons space. The exterior cladding incorporates a glazed curtain wall system and an aluminum panel rain-screen system. Exterior landscape consists of active rainwater detention basins and local stone elements that will extend into the building.

The DB is intended to be a showcase of integrated design that is expressive of today’s state-of-the-art building technology. The proposed design takes the form of a stacked courtyard with a collegial layout that provides a centrally located two-story commons for group activities, and is surrounded by studios, classrooms, workshops, and offices. The first floor will also contain a large meeting room, fabrication and materials testing shops, dining, classroom and research space. The second and third floors will contain studios, classrooms and offices, and a smaller fourth floor will contain studios.

The two-story commons area will feature an open zipper truss and large skylight. Many program spaces including studios, fabrication shops and offices will feature polished concrete floors and exposed structural deck and beams. It is the design intent that the finishes will be limited to reveal various components of the buildings’ mechanical, electrical and plumbing (MEP) systems for teaching purposes.
The designers of the project are Leers Weinzapfel Associates Architects of Boston, Stephen Stimson Associates Landscape Architects, BVH Integrated Service for Mechanical and Electrical engineering, and Equilibrium Consulting from Vancouver B.C. Canada as the structural designers.

I.2.3 Financial Resources

UMass Amherst, like most major research university campuses, has a variety of income sources that respond to different parts of the campus’ activities. The institution earns almost $864 million each year from all these sources. The largest block of revenue earned by the campus comes from the state. UMass Amherst currently earns about $235 million from state support. Other support comes from curriculum fees, auxiliary enterprises, federal appropriations, grants and contracts, and private giving. UMass relies primarily on a combination of state support and student fee revenue for its General Funds budget. General Funds provide the primary source of revenue for the campus’ base budget that sustains the faculty and staff and provides the primary support for teaching and some of the support for the institution’s research enterprise. Student fees have increased beyond the rate of inflation in years when the state appropriation has declined and increases have been held at or below inflation in those years when the state appropriation has increased.

The amount of campus revenue a state provides from its tax base varies greatly among the different states. In some states this income reflects enrollment by formulas that recognize the differential cost of lower division, upper division, graduate, and professional instruction. In other states, as is the case in Massachusetts, the amount provided by the state follows a lump sum, cost-to-continue or incremental model. The state calculates a lump sum, cost-to-continue allocation each year by taking the previous year’s appropriation as the base and then adding or subtracting dollars to accomplish the legislature’s goals.

The budget for the Department of Architecture in 2014-15 is outlined in the tables below. The budget does not include salaries and benefits for full-time faculty and staff. Costs of numerous centrally provided functions and resources (e.g., bookkeeping) cannot be easily segregated and assigned to individual programs. Furthermore, in kind contributions from other participating colleges (for instruction of required classes) are not easily calculated.

**Department of Architecture**
**Non-Payroll Budget (GOF)**

<table>
<thead>
<tr>
<th>Administration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingency</td>
<td>$8,000</td>
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<tr>
<td>Copier</td>
<td>$1,000</td>
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<tr>
<td>Dues</td>
<td>$10,000</td>
</tr>
<tr>
<td>Health Fee</td>
<td>$1,000</td>
</tr>
<tr>
<td>Jr / Sr Show</td>
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<tr>
<td>Office Work-study</td>
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<tr>
<td>Parking Fee</td>
<td>$100</td>
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<tr>
<td>Plotter</td>
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<tr>
<td>Post / Tel</td>
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<tr>
<td>Procard</td>
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<tr>
<td>Publicity / Newsletter</td>
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<tr>
<td>Summer Cleanup</td>
<td>$700</td>
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<tr>
<td>Tel Equip</td>
<td>$2,500</td>
</tr>
<tr>
<td>Travel / Food</td>
<td>$1,200</td>
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<tr>
<td><strong>Subtotal Administration</strong></td>
<td><strong>$51,000</strong></td>
</tr>
</tbody>
</table>
FY15 GOF Allocation | $51,000
---|---
GOF Remainder Total | $0
Gift Account | $25,660
David Dillon Lecture (Endowment) | Annual yield (FY14) | $0
CEI (Continuing Education Incentive) | $77,397
Junior Year Writing | $6,090

FY15 Approved TA Budget for Architecture
2.00 FTE Dean TA Base
(NB: Plotter/laser cutter TA from GOF; other TAs from faculty startups)

DEPARTMENT OF ARCHITECTURE
FY15 TA AND PART-TIME BUDGET

<table>
<thead>
<tr>
<th>TEACHING ASSISTANTS</th>
<th>No.</th>
<th>Current Rate</th>
<th>Hours</th>
<th>Actual Stipend @ $17,297.60</th>
<th>Actual Health @ $3,874.66</th>
<th>Actual Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FALL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEAN TAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TA1</td>
<td>1</td>
<td>$22.76</td>
<td>10</td>
<td>$4,324.40</td>
<td>$968.66</td>
<td>$5,293.06</td>
</tr>
<tr>
<td>TA2</td>
<td>2</td>
<td>$22.76</td>
<td>10</td>
<td>$4,324.40</td>
<td>$968.66</td>
<td>$5,293.06</td>
</tr>
<tr>
<td>TA3</td>
<td>3</td>
<td>$22.76</td>
<td>10</td>
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I.2.4 Information Resources

Library Collections

Context:
The Library collection has 23,150 volumes classified in the NA and NK categories directly pertaining to architecture. In addition, the Library owns “American Architectural Books,” a 128-reel microfilm collection containing almost 1,500 titles. There are substantial, related collections in Regional and City Planning classified in HT, in Landscape Architecture classified in SB, and in Building Construction classified in TH. These related collections comprise an additional 4,621 titles and estimated volume counts of approximately 6,000 volumes. The Slide Library, which is in the process of being integrated into the Library, has approximately 50,000 slides pertaining to architecture, as well as several thousand mounted plates.

Funding:
(a) Peer Institutions: Based on information available to us concerning peer institution collections and expenditures, we find that we compare to the following institutions in terms of collections and annual budget expenditures for architecture-related materials (including landscape architecture and building construction):

<table>
<thead>
<tr>
<th>Institution</th>
<th>Collection</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Massachusetts Amherst</td>
<td>23,150</td>
<td>$26,634</td>
</tr>
<tr>
<td>Ohio State University</td>
<td>58,424</td>
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<td>New Jersey Institution of Technology</td>
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<td>Syracuse University</td>
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</tr>
<tr>
<td>Howard University</td>
<td>19,324</td>
<td>$24,950</td>
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</tbody>
</table>

(b) The librarians have authority for spending decisions within the amount of money allocated for the subject area. The Library has bought several art image databases, and is contemplating the purchase of still more online image resources.

Subject Coverage:
The Library has been collecting in the area of Art and Architecture at the level to support the Masters in Art History program, which offers a variety of architecture courses, and to support the Master of Science in Design, which also offers architecture courses. The Library is also a member of the Five Colleges Consortium and shares collections with the libraries of Amherst, Smith, Mt. Holyoke and Hampshire Colleges. The Smith College Hillyer Art Library has a particularly strong adjunct collection of over 110,000 volumes, 38,000 microforms, and 225 current serials covering all aspects of the visual arts. The Library maintains approval plans with Yankee Book Peddler and World Wide, which provide a wide
coverage across the arts spectrum from painting to sculpture to architecture to photography, plus exhibition catalogs.

Levels of Coverage:
The Library considers its architecture collection to conform to “study level” as defined by David L. Perkins; e.g., “adequate to maintain knowledge of a subject required for limited or general purposes, of less than research intensity.”

Number of Volumes:
The Library’s architecture collection and related disciplines include over 28,000 volumes, which have been collected over a period of many years. It is likely that the Library will have to devote additional resources to bring the collections up to date and maintain them at an adequate level to support a Master’s program for Architecture.

Serials:
The serials collection is broad based and includes 299 periodical and serial titles, both current and retrospective, in the NA and NK classes. An additional 92 titles are included in the landscape architecture and regional and city planning category. There are 72 titles in TH (Building Construction). The Library owns Architectural Publications Index, Architectural Index, Art Index (print and online), Art Index Retrospective (online), Avery Index to Architectural Periodicals (print and online), and the Bibliography of the History of Art (print and online). The Library owns 9 of the 11 titles indexed in Architectural Index, although only 6 are currently received. One additional title is held by Smith College, our consortia partner. The Library owns 80 of the 311 titles included in Avery Index to Architectural Periodicals, and our consortia partners in the Five Colleges own another 55 titles, for a total of 43 percent. The Library owns 21 of the 97 titles indexed in Architectural Publications Index, and an additional 8 are owned by the Five Colleges, for a total of 30 percent. However, these figures include subscriptions which are not currently active. In the NA and NK classes, there are 49 active subscriptions; in HT and SB (Regional and City Planning, and Landscape Architecture portions), 15 are active; in TH (Building Construction), 15 are current.

Visual Resources and Non-Book Resources:
The Library is increasingly collecting non-book resources, in the form of image databases. These include the Amico and ArtStor image databases, along with the LUNA image management software. The Library is also considering adding Scholar’s Resource databases (such as the Davis and Saskia image libraries) to its resources, through consortia arrangements. The Library is also increasingly adding relevant Web sites to its catalogued collections. The Library’s Archives and Special Collections unit maintains photos and clippings, some of which might be relevant for study of local architecture. The Art History Department had an extensive slide library, which includes 50,000 images pertinent to architecture, and several thousand mounted plates. These resources are being digitized and incorporated into the Library collections.

Access:
The Library catalogs all materials according to national standards using MARC and AACR2rev. Materials are readily accessible in the Library’s online catalog (Web based). The Library uses OCLC as its cataloguing utility, and is a member of the Library of Congress NACO project (name authority cooperative). All currently received materials are catalogued in a timely manner, with no existing backlogs.

Conservation and Preservation:
The Library’s binding budget for FY ’06 is $95,700. All currently received periodicals are bound as appropriate. Selected paperbacks are bound as needed. The Library has had a thorough preservation survey prepared by the Northeast Document Conservation Center. A half-time conservation librarian worked for the Library for approximately a year; unfortunately, this person has since left the library. A library technician does minimal to medium –level conservation and preservation work.
Policy Statements:
The Library is in the process of preparing a written collection development policies.

Services

Reference:
The Du Bois Library has a staff of 14 professional reference librarians, all of whom are capable of providing basic reference service. The Library also has one bibliographer who specializes in the use of the Art, Art History, and Architecture resources, and one librarian who specializes in Landscape Architecture and Regional and City Planning. With the incorporation of the Perkins Slide Library into the University Libraries, a half-time meta-data cataloger and an Image Librarian are being added to the Library’s personnel resources in art and architecture. The Library provides “chat” reference service, an online “Ask a Librarian,” in addition to a reference desk service, which is staffed 71.5 hours per week during the semester in the Du Bois Library. Through participation in a national “24/7” program, a certain degree of reference help is available to students around the clock during the school year via the Web.

Bibliographic Instruction:
The Library regularly conducts bibliographic instruction and has two electronic classrooms to support this effort. Classes are tailored to the needs of the students and are customized based on input from the faculty who request the bibliographic instruction sessions. Pathfinders are prepared as needed in art history, architecture, landscape architecture and city planning for individual BI sessions. In addition, a subject web page for art and architecture is available for students to use on the library’s home page.

Access to Collections:
The Library conforms to ADA standards and has an Assistive Technologies Center in the Du Bois Library. Elevators and restrooms are handicapped accessible. Staff is available to page materials for students unable to procure materials on their own due to disability.

Circulation: The Library has appropriate written loan policies in place. Art and architecture books circulate for 28 days to undergraduates, and for six months to graduate students and faculty.

Convenience: The Art and Architecture collection is open to students and other researchers the entire time the Library is open (134 hours per week). The main Du Bois reference desk is staffed 71.5 hours per week.

Current Awareness:
The Library maintains New Books shelves in 3 bookcases prominently located on the Du Bois Main Floor and shelved in LC classification order. The Architecture subject web page automatically displays all new titles in architecture and landscape architecture. The Library’s online system is capable of generating subject-specific journal lists which have been provided on request. The Library has 7 exhibit cases in various areas of the Du Bois building, and rotating exhibits on a variety of topics are regularly presented. Lists of new books published from vendors such as Yankee can be sent electronically to all faculty in art, art history, and architecture.

Cooperative Agreements:
The Library has extensive interlibrary loan agreements with multiple consortia. The Library belongs to the Five College Consortium and shares an online catalog with them. All University of Massachusetts Amherst faculty, graduate students and staff have borrowing privileges to the collections of the Five Colleges (Amherst, Hampshire, Mt. Holyoke, and Smith Colleges and the University of Massachusetts Amherst). The libraries’ shared online catalog has an item request function whereby circulating materials from the collections of all five colleges are delivered through a twice-daily courier to the home library of
the participant. The Library is also a member of the Boston Library Consortium\(^1\), whose member libraries provide free reciprocal borrowing. The Library has an expedited interlibrary loan agreement with 50 other libraries (through Rapid Consortium)\(^2\), which have committed to a 24-hour turnaround time on electronic delivery of journal articles.

In terms of software support, the Library implemented a state-of-the-art ILL system, ILLiad, which can take scanned journal articles and can deliver them electronically to the user’s desktop. The Library uses OCLC as the foundation for its interlibrary loan network. All interlibrary borrowing requests are now made online and transmitted instantly to the ILL Department. The new “Virtual Catalog” of the BLC enables patrons to request materials throughout the entire BLC system electronically.

**Staff**

**Structure:**
The administrative structure of the Library is represented on the attached organization chart. The Library works closely with faculty through a series of departmental library liaisons in every academic department. A subject specialist librarian is assigned responsibility for each department. The Library staff are considered part of the architecture program educational team and will be working closely with faculty as the program develops.

**Numbers:**
The Library system as a whole has a staff of 110 permanent FTE, plus 41 FTE student employees. There are 45 librarians included in the FTE count. There is one reference librarian and subject selector, who devotes approximately 5 percent time to architecture. The architecture collection is shelved on the “Art Floor,” which is open access to users during normal library hours.

**Professional Status:**
All librarians (45) on staff hold the MLS degree and many hold second Masters degrees or higher. The selector for art and architecture materials has a MLS, a Ph.D in History, and extensive coursework in art history. The newly-hired Image Librarian (formerly Slide Librarian) has a BA/MA in art history. The librarians are included in the same collective bargaining unit as faculty. They are granted renewable 5-year contracts, and are granted sabbatical leaves and short-term professional leaves. All librarians have written position descriptions.

**Support Staff:**
The Library has 79 FTE support staff and 41 FTE student employees. The majority of paraprofessionals have a BA degree or higher. The Library and the University have a well-established staff development program available to professional, paraprofessional and clerical staff. All positions have written descriptions.

**Professional Development:**
The Library regularly sends staff to conferences, workshops and training sessions. The Library has an annual travel budget of $45,000. Each librarian also has access to individual professional development funds through the provisions of their collective bargaining contract. The Library has an additional, modest supplementary endowment fund for nonprofessional training and support. The Library and the University also have a fully developed training and development program.

**Salaries:**

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\(^1\) Boston College, Boston Public Library, Boston University, Brandeis University, Brown University, Marine Biological Laboratory/Woods Hole Oceanographic Institution, Massachusetts Institute of Technology, Northeastern University, State Library of Massachusetts, Tufts University, University of Massachusetts Amherst, University of Massachusetts Boston, University of Massachusetts Dartmouth, University of Massachusetts Lowell, University of Massachusetts Worcester, Wellesley College.

\(^2\) University of Northern Arizona, Arizona State University, University of Arizona, University of Colorado Boulder, Colorado State University, Florida State University, Washington State University.
Librarian salaries are based on rank, experience and merit. Librarian salaries across the five librarian ranks are well above the national average and are commensurate with faculty salaries. Paraprofessional and clerical staff have grade classifications and job descriptions that are reviewed and assigned at the institution (University) level and, thus, are commensurate with those who have similar training and experience.

Facilities

Space:
The Du Bois Library is housed in a 28-story building in the geographical center of the campus. Space is adequate for the collections at present, and all materials are stored on campus. The Library has additional off-site storage through its partnership in the Five College Consortium. The off-site storage facility is located approximately six miles away and has twice-daily courier service. It also has an on-site reading room and ARIEL technology for electronic transmission of needed information. The library system also has two branch libraries on campus: the Integrated Sciences and Engineering Library (ISEL), and a Music Reserve Library. The Du Bois Library, opened in 1973, is fully air conditioned. The Library has 350 study spaces in a variety of configurations, including comfortable upholstered chairs, open study tables, and private carrels. The Art and Architecture collection is housed in a 10,000-square-foot stack area. The Art Floor has 85 study spaces. This collection is accessible as long as the building is open.

Equipment:
All materials are appropriately shelved on standard library shelving or in folio cases as appropriate. Microfilm is stored in microfilm cabinets. The Library has 197 public PCs for access to the Library catalog, databases and Internet. The Microforms Room has adequate equipment (reader/printers, fiche readers) to accommodate use of the collection. The Library plans to acquire a scanning microfilm reader for enhanced public service. There are 26 photocopiers throughout the Du Bois building, with two on the Art floor, including a color photocopier. The Art Floor has two PC’s for access to the Library catalog and web site. The vast majority of staff have their own assigned PC.

Personal Computers, Lighting, Electrical Supply, HVAC:
There are 197 public PCs, as noted above, and all staff either have their own assigned PC or access to a PC. Lighting, electrical supply, heating and ventilation are adequate.

Security:
The Library has electronic security systems in place in both library buildings (Du Bois and the new Integrated Sciences and Engineering Library). Materials are targeted with sensors. Portions of the building have sprinklers, and a new fire alarm system with intercom was recently installed. The Library has an up-to-date disaster plan and staff designated to respond.

Budget/Administration/Operations

Funds:
Funding comes primarily from the Commonwealth of Massachusetts and from the University. Only 4 percent of the acquisitions budget is from gifts or endowments. The budget as a whole is administered by the Director of Libraries, with advice and assistance of his senior staff, primarily the Assistant Director for Administrative Services. Art and architecture materials are selected by a bibliographer who is allocated funds for this purpose. Funding is based on a formula incorporating the number of faculty, graduate students, undergraduate majors, etc. in a particular program or department. Continuing commitments for serials, periodicals and electronic resources are under the purview of the Associate Director for Collection Services, who makes decisions based on the recommendations of the subject selector. The Library belongs to the Association of Research Libraries and ranks 85th among the 113 members as of the most recent available ranking.

Evidence of Planning:
The Library has an up-to-date written strategic plan covering all aspects of the Library's goals. A written collection development policy is one of those goals. The Library has also recently been doing detailed analysis of collection expenditures in relation to University data on enrollment and course offerings. This data will inform the writing phase of the collection development policy.

Intra-Institutional Relationships:
The architecture collection is a subsection of the Library's art collection. The collections of the other members of the Five Colleges (described above) will supplement the collection. The Hillyer Art Library at Smith College is a particularly important resource. The slide collection formerly in the Art Department provides supplementary resources pertaining to architectural images, as do the Amica and ArtStor databases.

Efficiency of Operations and Services:
The Library is administered by the Director of Libraries, who is responsible for all aspects of the Library system. He is assisted by Senior Management Group (SMG), which consists of the Associate Directors for User Services and Collection, the Assistant Directors for Administrative Services and Human Resources, and the heads of library departments, plus representatives from other units and the classified staff. The group meets weekly and coordinates the smooth and efficient operation of the Library. The SMG also contributes to effective communication and decision making, and consists of a cross section of professional and nonprofessional staff.

Participation of Faculty and Students:
The Research Library Council is an advisory body consisting of faculty, librarians and student representatives (graduate and undergraduate). It meets approximately three times per semester and has had a successful impact on improving Library funding and increasing Library hours of operation during exam periods.

I.2.5 Administrative Structure & Governance

Academic programs are organized in the following Colleges and Schools, each of which is led by a Dean who reports to the Provost: College of Humanities & Fine Arts, College of Natural Sciences (which includes the Stockbridge School of Agriculture), College of Social & Behavioral Sciences, College of Engineering, Commonwealth Honors College, Graduate School, Isenberg School of Management, College of Education, College of Nursing, School of Public Health & Health Sciences

The new Department of Architecture Program is one of 14 departments within the College of Humanities and Fine Arts, which encompasses a wide range of disciplines that range from the traditional text-based humanities fields of literary studies, history, and philosophy, to theoretical and applied linguistics, the visual and performing arts, and interdisciplinary departments that bring the arts and humanities together with the social and natural sciences. The Chair of Architecture reports to the Dean of the College, and is an active member of the college's heads and chairs council.

There are two graduate program directors in the department—one oversees the Master of Architecture, and the other oversees the Master of Science in Design, including historic preservation. There is also an undergraduate program director who oversees the BFA Architecture. The new department has approved, in principle, a set of by-laws that will govern the department.
II.1.1  Student Performance Criteria

The accredited degree program must demonstrate that each graduate possesses the following:

Realm A: Critical Thinking and Representation

A.1  Professional Communication Skills:
Ability to write and speak effectively and use representational media appropriate for both within the profession and with the general public.

These skills are an integral part of Analysis + Representation I and Master’s Thesis.
Primary emphasis
• Arch 540, Analysis and Representation I
• Arch 699, Master’s Thesis

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.

Studios are the primary vehicles for developing design thinking skills. Students are asked to explore alternatives, make informed design decisions, and defend design decisions in public presentations.
Primary emphasis:
• Arch 500, Graduate Design I
• Arch 501, Graduate Design II

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.

Most studio projects are tailored to include investigative skills, where students are encouraged to collect data (through the library, web and other means) and/or in the field. A major focus of Research Forum is the development of individual research documents and programs which inform the Master’s Thesis.
Primary emphasis
• Arch 670, Research Forum
• Arch 699, Master’s Thesis

A.4  Architectural Design Skills:
Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.

Fundamental design skills are nurtured in Graduate Design I and II and companion Analysis and Representation I and II courses. Exercises in these beginning studios build drawing, conceptual, and craft skills, and lead to an ability to apply basic organizational and spatial principles to the conception and development of design projects. Subsequent studios refine these fundamental design abilities, and enhance students’ understanding of the complexity of design.
Primary emphasis:
• Arch 500, Graduate Design I
• Arch 501, Graduate Design II

A.5 Ordering Systems:
Ability to apply the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

The core design studios cover formal ordering systems in detail, while subsequent design studios provide further opportunities for exploration and understanding.
Primary emphasis:
• Arch 500, Graduate Design I
• Arch 501, Graduate Design II

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.

Graduate Design IV and Master’s Thesis emphasize the use of programmatic and formal precedents in the development of design projects.
Primary emphasis
• Arch 601, Graduate Design IV
• Arch 699, Master’s Thesis

A.7 History and Global Culture:
Understanding of the parallel and divergent histories of architecture and the cultural norms of a variety of indigenous, vernacular, local, and regional settings in terms of their political, economic, social, ecological, and technological factors.

The required history and theory courses nurture an understanding of the canons and traditions in architecture, landscape architecture, and urban design.
Primary emphasis:
• Art History 643, 20th Century Architecture
• Arch 630, Philosophy of Architecture+Design

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.

Studies and theory course focus on issues of cultural diversity and social equity. Graduate Design II covers issues of accessibility in development of building and site.
Primary emphasis
• Arch 501, Graduate Design II
• Arch 630, Philosophy of Architecture and Design


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.

Pre-Design is a focus of Graduate Design IV and Master's Thesis.

Primary emphasis:
- Arch 601, Graduate Design IV
- Arch 699, Master's Thesis

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.

The interrelationship of site and building are addressed throughout the design studio curriculum, with significant emphasis placed in Graduate Design III.

Primary emphasis:
- Arch 600, Graduate Design III

B.3 Codes and Regulations:
Ability to design sites, facilities, and systems that are responsive to relevant codes and regulations, and include the principles of life-safety and accessibility standards.

Codes and regulations are addressed in the Graduate Design IV and Integration series.

Primary emphasis
- Arch 601, Graduate Design IV
- Arch 700, Integration

B.4 Technical Documentation:
Ability to make technically clear drawings, prepare outline specifications, and construct models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

Technical documentation is addressed in the Graduate Design IV and Integration series.

Primary emphasis
- Arch 601, Graduate Design IV
- Arch 700, Integration

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.

Principles of structural systems are covered in Tectonics I-III, and Integration.

Primary emphasis:
- Arch 650, Tectonics II
- Arch 653, Tectonics III

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.

Environmental system design is the focus of Building Physics I-II and Advanced Building Energy

Primary emphasis:
- Arch 520, Building Physics I
- Arch 620, Building Physics II
- ECO 597, Advanced Building Energy

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.

This subject is addressed in Integration.
Primary emphasis
- Arch 700, Integration

B.8 Building Materials and Assemblies:
Understanding of the basic principles used in the appropriate selection of interior and exterior construction materials, finishes, products, components, and assemblies based on their inherent performance, including environmental impact and reuse.

Principles of building materials and assemblies are the foci of Tectonics I and Integration. These principles are reinforced in design studios.
Primary emphasis:
- Arch 550, Tectonics I
- Arch 700, Integration

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.

Most of the principles of building service system design are taught in Building Physics II, Advanced Building Energy and Integration.
Primary emphasis:
- Arch 620, Building Physics II
- ECO 597, Advanced Building Energy
- Arch 700, Integration

B.10 Financial Considerations:
Understanding of the fundamentals of building costs, which must include project financing methods and feasibility, construction cost estimating, construction scheduling, operational costs, and life-cycle costs.

Fundamentals of building costs are covered in Professional Practice and Integration.
Primary emphasis:
- Arch 660, Professional Practice
- Arch 601, Graduate Design IV
- Arch 700, Integration

Realm C: Integrated Architectural Solutions.
C.1  Research:
Understanding of the theoretical and applied research methodologies and practices used during design

A major focus of Research Forum is on research methods.

Primary emphasis
  • Arch 670, Research Forum

C.2  Integrated Evaluations and Decision-Making Design Process:
Ability to demonstrate the skills associated with making integrated decisions across multiple systems and variables in the completion of a design project. This demonstration includes problem identification, setting evaluative criteria, analyzing solutions, and predicting the effectiveness of implementation.

In the Graduate Design IV and Integration sequence, students produce comprehensive projects informed by a comprehensive program. Integrated evaluations and design making processes are also emphasized in Master’s Thesis.

Primary emphasis:
  • Arch 601, Graduate Design IV
  • Arch 700, Integration
  • Arch 699, Master’s Thesis

C.3  Integrative Design:
Ability to make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

Integrative design is emphasized in the Graduate Design IV and Integration sequence.

Primary emphasis:
  • Arch 601, Graduate Design IV
  • Arch 700, Integration

Realm D: Professional Practice.

D.1  Stakeholder Roles in Architecture:
Understanding of the relationships among key stakeholders in the design process—client, contractor, architect, user groups, local community—and the architect’s role to reconcile stakeholder needs.

Stakeholder roles are discussed in various studios and Professional Practice.

Primary emphasis:
  • Arch 660, Professional Practice

D.2  Project Management:
Understanding of the methods for selecting consultants and assembling teams; identifying work plans, project schedules, and time requirements; and recommending project delivery methods.
Project management is discussed in various studios and Professional Practice.
Primary emphasis:
- Arch 660, Professional Practice

D.3 Business Practices:
Understanding of the basic principles of a firm’s business practices, including financial management and business planning, marketing, organization, and entrepreneurship.

Business practices are discussed in various studios and Professional Practice.
Primary emphasis:
- Arch 660, Professional Practice

D.4 Legal Responsibilities:
Understanding of the architect’s responsibility to the public and the client as determined by regulations and legal considerations involving the practice of architecture and professional service contracts.

Legal responsibilities are discussed in various studios and Professional Practice.
Primary emphasis:
- Arch 660, Professional Practice

D.5 Professional Conduct:
Understanding of the ethical issues involved in the exercise of professional judgment in architectural design and practice and understanding the role of the NCARB Rules of Conduct and the AIA Code of Ethics in defining professional conduct.

Professional conduct is discussed in various studios and Professional Practice.
Primary emphasis:
- Arch 660, Professional Practice
## II.2.1 Institutional Accreditation

The University of Massachusetts Amherst is accredited by the Commission on Institutions of Higher Education (CIHE) of the New England Association of Schools and Colleges (NEASC). The last comprehensive accreditation review took place in 2009, and on March 4, 2010, CIHE voted to continue the campus's accreditation with the next comprehensive evaluation scheduled for 2018.
II.2.2 Professional Degrees & Curriculum

The Master of Architecture (M. Arch) is the only professional degree offered. The base program is 87 credits (3-years) following a 120 credit bachelor’s degree in any subject. Students may waive up to 30 credits depending on undergraduate preparation.

Prerequisites for admission to the three-year program are college physics and calculus, an introduction to architectural history. Applicants who hold a four-year pre-professional degree in architecture from an institution with an NAAB program (or equivalent) may be admitted with advanced standing and may be able to graduate in two years. The minimum requirement for graduation is 87 credits or 57 credits with advanced standing.

Core Requirements
Students are required to satisfactorily complete a core sequence in these areas: Studio, Technical, History and Theory Practice.

Studio Sequence
Studio, Analysis, and Representation courses are required. A total of 36 credits can be earned in this area (18 credits for students with advanced placement).

Technical Sequence
Technical courses in Building Physics, Tectonics, and Architectural Integration are required. A total of 21 credits can be earned in this area (15 credits for students with advanced placement).

History and Theory Sequence
A minimum of 9 credits is required in the History and Theory sequence.

Master’s Thesis
A three-semester sequence of Research Forum (3 credits) is followed by Master’s Thesis (3+6 credits).

Directed Electives
Minimum of 3 courses (9 credits) to enable each student to develop a concentration
### UMass Architecture

**MASTER OF ARCHITECTURE**

3 Year Program

(2 Year Program, see footnote)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Can be waived*</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 500</td>
<td>Graduate Design Studio I</td>
<td>6</td>
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<tr>
<td>ARCH 540</td>
<td>Analysis+Representation I</td>
<td>3</td>
<td></td>
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<tr>
<td>ARCH 520</td>
<td>Building Physics I</td>
<td>3</td>
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<tr>
<td>ARCH 550</td>
<td>Tectonics I</td>
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<tr>
<td>ARCH 501</td>
<td>Graduate Design Studio II</td>
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<tr>
<td>ARCH 541</td>
<td>Analysis+Representation II</td>
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<tr>
<td>ARCH 650</td>
<td>Tectonics II</td>
<td>3</td>
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<tr>
<td>ART-HIST 643</td>
<td>20th Century Architecture</td>
<td>3</td>
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</tr>
<tr>
<td>ARCH 600</td>
<td>Graduate Design Studio III</td>
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</tr>
<tr>
<td>ARCH 620</td>
<td>Building Physics II</td>
<td>3</td>
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<tr>
<td>ARCH 660</td>
<td>Professional Practice</td>
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<tr>
<td>ARCH 630</td>
<td>Philosophy of Arch. + Design</td>
<td>3</td>
<td></td>
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<tr>
<td>ARCH 601</td>
<td>Graduate Design Studio IV</td>
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<tr>
<td>ARCH 670</td>
<td>Research Forum</td>
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<td></td>
<td>Free Elective</td>
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**PORTFOLIO REVIEW**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ARCH 602</td>
<td>Graduate Design Studio V</td>
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<tr>
<td>ARCH 653</td>
<td>Tectonics III</td>
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<tr>
<td>ARCH 700</td>
<td>Integration</td>
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</tr>
<tr>
<td>ARCH 699</td>
<td>Master’s Thesis (part 1)</td>
<td>3</td>
</tr>
<tr>
<td>ARCH 699</td>
<td>Master's Thesis (part 2)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Free Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

| Total Credits | 78 | 9 | 87 TOTAL |

*Up to 30 credits in the first-year can be waived for advanced standing students (those with undergraduate degrees in architecture who have taken and passed substantially equivalent courses with B or better) 2015
II.3 Evaluation of Preparatory Education

MASTER OF ARCHITECTURE

All applicants to the Master of Architecture program, who have completed prior undergraduate or graduate coursework in architecture, must submit design portfolios and transcripts from all previous colleges/universities they attended (regardless of whether or not they graduated) in order to be considered for course waivers and advanced standing. In addition to this, students with foreign degrees must provide transcript evaluations that translates course grades and credits to U.S.-based grading standards.

After admissions decisions are made, the director conducts a formal review of transcripts and portfolios from all successful applicants who have earned pre-professional architecture degrees from schools with NAAB programs, or equivalent, to determine the number of course waivers given and placement within the design studio sequence.

Waivers (with reduction in credit hours) can be given for coursework equivalent to introductory courses (500 level) in the 3 year Master of Architecture curriculum. The program may ask the student for more information—e.g., course syllabi—if questions arise relative to the content of certain courses that are being considered as the basis for graduate-level course waivers. In order for a course to be waived it must achieve parity in content, credit hours, and in relevant NAAB criteria. (For example, history courses must cover the same time periods and geographic emphases—non-western and western traditions—as UMass courses). In order for courses to be waived, students must have earned a “B” or better grade.

In addition to grade reviews, portfolios are assessed to determine studio waivers and placement. Studio waivers and placement are based on the comparable quality and level of development of previous design projects to the master’s core studio sequence. If a student is placed in the advanced design sequence, previous work must be deemed exceptional and the appropriate credit hours of core design studios are waived.

All students who are issued course waivers are then issued a form which specifies all courses waived (and all remaining courses to be taken at UMass).

Students who have completed graduate-level coursework elsewhere are eligible to receive up to 12 credit hours of course waivers at UMass, if those courses were completed with a “B” or better grade. Each course must have been completed as part of an accredited program at another institution, or graduate courses at UMass taken under a non-degree seeking status.

II.4 Public Information

II.4.1 Statement on NAAB-accredited degrees
Statement is included in catalogs and public information
http://www.umass.edu/architecture/content/about
Note: The department is launching a new website in the Fall and this address might change

II.4.2 Access to NAAB Conditions and Procedures
www.naab.org

II.4.3 Access to Career Development Information
http://www.umass.edu/architecture/content/advising
Note: The department is launching a new website in the Fall and this address might change

II.4.4 Public Access to APRs and VTRs
The last VTR is available online at www.naab.org
The other required information will be posted on the new website

II.4.5 ARE Pass Rates

II.4.6 Admissions and Advising
http://www.umass.edu/architecture/content/admissions-all-programs
Note: The department is launching a new website in the Fall and this address might change

II.4.7 Student Financial Information
https://www.umass.edu/umfa/sites/default/files/netprice/npcalc_0.htm

III.1.1 Annual Statistical Reports
Confirmation letter is included in supplemental material.

III.1.2 Interim Progress Reports
These will be provided by NAAB
Section 4. Supplemental Material

FACULTY RESUMES

<table>
<thead>
<tr>
<th>Department of Architecture—Full-time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ajla Aksamija</td>
</tr>
<tr>
<td>Caryn Brause</td>
</tr>
<tr>
<td>Carey Clouse</td>
</tr>
<tr>
<td>M. Naomi Darling</td>
</tr>
<tr>
<td>Joseph Krupczynski</td>
</tr>
<tr>
<td>Sandy Litchfield</td>
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<tr>
<td>Kathleen Lugosch</td>
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<tr>
<td>Ray Kinoshita Mann</td>
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<tr>
<td>Sigrid Miller Pollin</td>
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<tr>
<td>Max Page</td>
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<tr>
<td>Stephen Schreiber</td>
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<table>
<thead>
<tr>
<th>Other Full-time faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peggi Clouston</td>
</tr>
<tr>
<td>Simi Hoque</td>
</tr>
<tr>
<td>Ho Sung Kim</td>
</tr>
<tr>
<td>Timothy Rohan</td>
</tr>
<tr>
<td>Alexander Schreyer</td>
</tr>
<tr>
<td>Ben Weil</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Continuing part-time faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerry Dietz</td>
</tr>
<tr>
<td>Meg Vickery</td>
</tr>
</tbody>
</table>
Ajla Aksamija, Assistant Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 601, Graduate Design IV, Spring 2015
Arch 591, Sustainable and High Performance Facades Seminar, Spring 2015
Arch 700, Integration Studio, Fall 2014
Arch 400, Design Studio III, Fall 2014
Arch 601, Graduate Design IV, Spring 2014
Arch 541, Analysis + Representation II, Spring 2014
Arch 602, Graduate Design V, Fall 2013
Arch 540, Analysis + Representation I, Fall 2013

Educational Credentials:
PhD in Architecture (Environment and Technology), University of Illinois at Urbana-Champaign, 2008
Master of Architecture, University of Illinois at Urbana-Champaign, 2005
Bachelor of Science in Architectural Studies, University of Illinois at Urbana-Champaign, 2003

Teaching Experience:
University of Massachusetts, 2013 to present, assistant professor
University of Pennsylvania, 2013, lecturer

Professional Experience:
Perkins+Will, 2008 to present
US Army Corps of Engineers, Engineering Research Development Center, 2006-08
City of Champaign, 2004-06
University of Illinois at Urbana-Champaign, 2003-05

Licenses/Registration:
LEED AP BD+C, United States Green Building Council, 2008 to present
Construction Documentation Technologist, Construction Specifications Institute, 2010 to present

Selected Publications and Recent Research:
M. Naomi Darling, Five College Assistant Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 403, Design V, Fall 2014

Educational Credentials:
Master of Architecture, Yale School of Architecture, Yale University, 2006
Bachelor of Science and Engineering, Princeton University, 1996

Teaching Experience:
Hampshire College/Mt. Holyoke College/ University of Massachusetts Amherst, 2012 to present, Five College Assistant Professor
Yale University, School of Architecture, 2008 – 2012, lecturer/critic
Brown University, Urban Studies Department, 2009 – 2012, lecturer
Dalhousie University, Faculty of Architecture and Planning, 2008, visiting studio critic

Professional Experience:
Naomi Darling Architecture, LLC, Branford CT + South Hadley MA, 2011 to present
Studio ABK, New Haven, CT, 2007-2009
Kengo Kuma and Associates, Tokyo, Japan, 2006-2007
Olson Sundberg Kundig Allen Architects, Seattle, WA, 2000-2003

Licenses/Registration:
Connecticut, Architect, 2010 to present
LEED AP

Selected Awards:
AIA New England Regional Award, Citation, 2013 for Kernan Tea House
Boston Foundation for Architecture, 2012, grant for an exploratory phase for the development of a Five Colleges Design Center in Holyoke MA.

Select Projects:
Petit Container Studio: Stony Creek, CT. Projected completion date: 2015.
Old Saybrook Great Park – 225 Main St. & 36 Lynde St.: Old Saybrook, CT – concept design: 2013.
Mason Residence: Simsbury, CT. Projected completion date: 2015.
Kernan Studio: Stony Creek, CT. Completed 2012.

Professional Memberships:
American Institute of Architects
Caryn Brause, Assistant Professor

Courses Taught (Fall 2013-Spring 2015):
LandArch 697W, Interdisciplinary Design Collaboration: Special Topics in Landscape Architecture, Fall 2014
Arch 597, Voices from the Field, Fall 2014
Arch 540, Analysis and Representation I Digital Lab: Graduate Section, Fall 2014
Arch 597, Voices from the Field, Spring 2014
Arch 541, Analysis and Representation II Digital Lab: Graduate Section, Spring 2014
Arch 540, Analysis and Representation I Digital Lab: Graduate Section, Fall 2013
Arch 400, Undergraduate Design III Studio, Fall 2013

Educational Credentials:
Master of Architecture, University of Virginia, 1996
Bachelor of Arts, University of Pennsylvania, 1988

Teaching Experience:
University of Massachusetts, 2008 to present, assistant professor, instructor
Hampshire College, 2011 to 2012, visiting professor

Professional Experience:
SITELAB Architecture + Design, 2008 to present

Licenses/Registration:
Massachusetts, Architect, 2009 to present
New York, Architect, 2000 to present

Selected Publications and Recent Research:
2014 Mosher Street Rail Bridge Underpass, Public Art Competition Winner, collaboration with Joseph Krupczynski
2013 AIA New England Citation Award, Project - EcoBuilding Bargains
2013 NCARB Award for the Integration of Practice and the Academy, Project - Voices From the Field: From Design Concept to Reality
Built and non-built architecture projects exhibited in Massachusetts (2013) and Seoul, Korea (2014)

Professional Memberships:
American Institute of Architects
LEED Accredited Professional, BD+C
AIA Disaster Assistance Volunteer Certification
Carey Clouse, Assistant Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 301, Design II, Spring 2015
Research Intensive Semester, Fall 2014
Arch 301, Design II, Spring 2014
Arch 400, Design III, Fall 2013
Arch 601, Graduate Design IV, Spring 2013

Educational Credentials:
Master of Science in Architectural Studies, Massachusetts Institute of Technology, 2007
Bachelor of Architecture, University of Oregon, 2003

Teaching Experience:
University of Massachusetts, 2011 to present, assistant professor, visiting design|build instructor
Tulane University, 2007 to 2011, assistant professor

Professional Experience:
Crookedworks Architecture, 2008 to present
Fernau and Hartman, Berkeley, CA, 2004-5
McCamant and Durrett Architects, Berkeley, CA 2003-4

Licenses/Registration:
Louisiana, Architect, 2008 to present

Selected Publications and Recent Research:
“Cuba’s Urban Farming Revolution: How to Create Self-sufficient Cities.” Architectural Review. 03.17.2014.

Professional Memberships:
American Institute of Architects
Ray Kinoshita Mann, Associate Professor

Courses Taught (Fall 2014-Spring 2015):
Arch 403, Design V, Fall 2014
Arch 501, Graduate Design II, Spring 2015
Arch 620, Building Physics II, Fall 2014
Arch 670, Research Forum, Spring 2015

Educational Credentials:
Master of Architecture, With Distinction Harvard University, 1988
Bachelor of Arts, Magna Cum Laude Harvard-Radcliffe College, 1983

Teaching Experience:
University of Massachusetts, 2001 to present, Associate Professor
University of Massachusetts, 1998-2001, Assistant Professor
University of Massachusetts, 1995-1998, Lecturer

Professional Experience:
R K Studio, Amherst, Massachusetts, 1990-present. Principal Architect
Rafael Moneo, Architect, Cambridge, Massachusetts, 1987-1988. Design Assistant,
Jeremiah Eck, Architect, Boston, Massachusetts, 1984-1985. Design Assistant,

Licenses/Registration:
Massachusetts, Architect, #8921, 1990 to present
NCARB Certification #43,058

Selected Publications and Recent Research:
Nipmic Native American Tribe—Structures of Empowerment design/build (w/ M. Sutter) 2015-present.
Matsuda Residence, Leverett, Massachusetts, energy-efficient new construction 2014-present.
Rule Residence, Hadley, Massachusetts, energy-efficient new construction 2014-present.
“Dickinson Meadow Homes, Amherst, Massachusetts, net-zero prototype, (2010-present).
Systems Thinking at the Get-Go”, in progress article to present at ARCC conference, 2015.
Hampshire College Roos-Rohde House, energy-efficient new construction, design/build, 2013-2014.
Mann Residence, Amherst, Massachusetts, net-zero new construction, 2009-2011.
Carlisle Lavoie Residence, energy-efficient new construction, 2008-2010.
“Greening the Valley”, University Gallery Exhibition, invited participant and speaker, 2010.
Cooperative Research Program Grant ($59k) –Terrazzo Cracking at Logan Airport, Principal Investigator:
Associate Professor Scott Civjan, Co-principal Investigator: Associate Professor Ray Kinoshita Mann

Professional Memberships:
USGBC
Joseph Krupczynski, Associate Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 300, Design I, Fall 2013, Fall 2014
Arch 301, Design II, Spring 2014, Spring 2015
Arch 404, Design VI, Spring 2014, Spring 2015
Arch 500, Graduate Design I, Fall 2013, Fall 2014

Educational Credentials:
Master of Science in Design, UMass Amherst, 2001
Bachelor of Fine Arts, Parson School of Design, 1982

Teaching Experience:
University of Massachusetts, 2001 to present, assistant professor, associate professor Parson School of Design, 1983 to 1990, instructor

Professional Experience:
studio projects, Principal Designer, Northampton MA, 2001–present
Architrope Architects, Project Designer, New York, NY, 1992

Licenses/Registration:
none

Selected Publications and Recent Research:
"Arrivals," Holyoke MA, 2014
A $35,000 commission for a public art installation installed at a rail underpass in Holyoke (in collaboration with Caryn Brause).

A $66,000 grant from HUD and the Pioneer Valley Planning Commission to develop a community and civic engagement plan. Related Report/Resource Guide: “Sustainability and Equity,

" 2014

"Re-use Study of Holyoke’s Historic Train Station," 2014
A feasibility study exploring design options the former a historic landmark in Holyoke MA designed by Henry Hobson Richardson. Related Report: “Restoration and Reuse Study: Holyoke’s Historic Richardson Station,” 2014

Movable Feast. Various Locations in Western MA, 2010
Design for a “green” food service vehicle to support local food system change. Related scholarly article: “Movable Feast: A Public Art Project To Promote Food System Change,” 2012 (Rethinking Marxism, vol. 23, no. 3, 201, pp. 405–17)

Professional Memberships:
none
Sandy Litchfield, Assistant Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 100, Drawing I, Spring 2015
The Practice of Art, Drawing I, Fall 2014
Foundation Drawing, Advanced Drawing Problems, Spring 2014
BFA Seminar, Graduate Drawing, Fall 2013

Educational Credentials:
MFA Painting, University of Massachusetts Amherst, 2003
BFA Sculpture, University of Colorado Boulder, 1994

Teaching Experience:
University of Massachusetts Amherst, 2014 to present, assistant professor
Amherst College, 2014, visiting lecturer
University of Massachusetts Amherst, 2011 to 2014, visiting assistant professor
Mount Holyoke College, 2009 to 2010, 2014-2015, visiting assistant professor
University of Massachusetts Amherst, 2004 to 2005, 2009 to 2011, lecturer

Professional Experience: (gallery representation)
Garvey|Simon, New York, NY, 2013 to present
Carroll and Sons, Boston, MA, 2009 to present
Metaphor Contemporary Art, Brooklyn, NY, 2004 to 2009
Bernard Toale Gallery, Boston, MA, 2004 to 2009

Licenses/Registration:
n/a

Selected Publications and Recent Research: (exhibitions)
Hooloon Art, Sandy Litchfield, Philadelphia, PA, 2015 (solo)
Carroll and Sons, What Blooms in the Rubble, Boston, MA, 2013 (solo)
Satellite Contemporary, In the Company of Color, Las Vegas, NV (group invitational)
Seen Gallery, Our First Show, Pawtucket, RI, 2015 (group invitational)
Arkansas Art Center, Collector’s Show, Little Rock, AR, 2014 (group invitational)
Station Independent Projects, In The Zone, New York, NY, 2013 (group invitational)

Professional Memberships:
College Art Association
Kathleen Lugosch, Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 600, Graduate Design Studio III, Fall 2013 and 2014
Arch 699, Thesis, Spring and Fall 2013 and 2014

Educational Credentials:
Master of Architecture, Harvard University, 1983
Bachelor of Arts, St. Lawrence University, 1974

Teaching Experience:
University of Massachusetts, Dept. of Architecture:
  Professor, Dept. of Architecture, 1995 - present
  Thesis Director, Professor, Dept. of Architecture, 2009 - present
  Graduate Program Director, 2011 -present
Boston Architectural Center, Boston, MA, Co-Instructor and Guest Critic 1984 - 1986

Professional Experience:
Kathleen Lugosch Architect, 1986 to present
Graham Gund Architects, Boston, MA, 1983-6
Leers Weinzapfel Associates, Boston, MA, 1982-1983
David Handlin, Cambridge, MA, 1981-1983

Licenses/Registration:
Massachusetts, Architect, 1986 to present

Selected Publications and Recent Research:
Women in Design Award of Excellence
small lots / BIG IDEAS Competition Northampton 2013
Smart Growth International Competition 2010
  Winning Student Submission
Zube Lecture: In situ_ The Integration of Architecture and Site 2010
More than a roof garden: Sod roofs boast practical and environmental benefits: Daily Hampshire Gazette, 2010
Greening the Valley: University Gallery Exhibit, 2010

Professional Memberships:
American Institute of Architects (Fellow)
Sigrid Miller Pollin, Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 401, Design IV, Spring 2015
Arch 597G, Great Spaces, Spring 2015
Arch 401, Design IV, Spring 2014
Arch 597G, Great Spaces, Spring 2014

Educational Credentials:
Master of Architecture, Columbia University, 1975
Bachelor of Arts, Vassar College, 1971

Teaching Experience:
University of Massachusetts, 1998 to present, professor
California Polytechnic University Pomona, 1985 to 1998, professor, chair

Professional Experience:
Principal, Miller Pollin Architecture, Amherst MA 1998 to present
Principal, Miller Pollin Architecture, Riverside CA 1984 to 1995
Partner, Siteworks Architecture, Venice CA and Riverside CA 1995-1998
Conklin & Rossant Architects, New York, NY 1977-79

Licenses/Registration:
Massachusetts, Architect, 1999 to present
California, Architect, 1985 to present

Selected Publications and Recent Research:
“Field Notes” bas reliefs and pen and ink drawings in juried and non-juried exhibits in New England, 2011-15
Built and unbuilt architecture projects exhibited in Massachusetts and Rhode Island 2013, 2014
Net Zero Energy Research, Crotty Hall Project, Amherst MA (ongoing)
LEED Gold and Platinum Residential projects completed in Massachusetts

Professional Memberships:
American Institute of Architects (Fellow)
Max Page, Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 630 Philosophy of Architecture, Fall 2013
Arch 597D History and Theory of Historic Preservation Fall 2015
Arch 630 Philosophy of Architecture, Fall 2014
Arch 211 The City, Spring 2015
Arch 597D History and Theory of Historic Preservation Spring 2015

Educational Credentials:
University of Pennsylvania, Ph.D. in History 1995
Yale University, B.A. magna cum laude in History with distinction 1988

Teaching Experience:
Professor of Architecture and History, University of Massachusetts, 2001 –
Visiting Professor, Department of History, Yale University 1999 – 2001
Leverhulme Visiting Research Professor, University of Nottingham 1998
Assistant Professor, Georgia State University, 1996-1998

Selected Publications and Recent Research:
Memorias en la Ciudad (Memories in the City), editor of a translation of a book by Memoria Abierta, about
sites in Buenos Aires related to the last dictatorship (University of Massachusetts Press, 2013).
The Architecture of the University of Massachusetts, co-authored with Marla Miller, part of the Campus
The City’s End: Two Centuries of Fantasies, Fears, and Premonitions of New York’s Destruction (Yale
University Press, 2008)
of the 2001 Spiro Kostof Award of the Society of Architectural Historians, given for the best work
on urbanism and architecture in the previous two years.
Building the Nation: Americans Write About Their Architecture, Their Cities, and Their Landscapes
(Philadelphia: University of Pennsylvania Press, 2003), co-edited with Steven Conn. Winner of
the Allen Noble Award.
Giving Preservation a History: Essays on the History of Historic Preservation in the United States (New

Professional Memberships:
Urban History Association
Society of American and City Regional Planning Historians
Stephen Schreiber, Professor

Courses Taught (Fall 2013-Spring 2015):
Arch 401, Design IV, Spring 2015
Arch 400, Design III, Fall 2014
Arch 401, Design IV, Spring 2014
Arch 300, Design I, Fall 2013

Educational Credentials:
Master of Architecture, Harvard University, 1984
Bachelor of Arts, Dartmouth College, 1979

Teaching Experience:
University of Massachusetts, 2005 to present, professor, director, interim chair
University of South Florida, 2000 to 2005, professor, dean
University of New Mexico, 1989 to 2000, professor, director
University of Miami, 1987 to 1989, visiting professor
Boston Architectural Center, 1983 to 1987, instructor

Professional Experience:
Stephen Schreiber Architect, 1990 to present
Daniel Mulliken, North Easton, MA, 1986-7
Notter Finegold Alexander, Boston, MA 1985-6
Moshe Safdie, Boston, MA 1984-5

Licenses/Registration:
Massachusetts, Architect, 1985 to present

Selected Publications and Recent Research:
“South Hadley Design Assessment and Guidelines”, with E. Brabec, and M. Hamin, 2013
Built and non-built architecture projects exhibited in Massachusetts and New Hampshire, 2013, 2014
small lots / BIG IDEAS Competition Northampton 2013

Professional Memberships:
American Institute of Architects (Fellow, 2005)
Peggi Clouston, Associate Professor, Building and Construction Technology

Courses Taught (Fall 2013-Spring 2015):
Arch 650+BCT597BM, Tec II, Spring 2015
Arch 650+BCT597BM, Tec II, Spring 2014
*This course covers NAAB-requirements for structural systems.

Educational Credentials:
PhD, University of British Columbia, 2001
Master of Applied Science, University of British Columbia, 1996
Bachelor of Applied Science, University of British Columbia, 1989

Teaching Experience:
University of Massachusetts, 2008 to present, Associate Professor
University of Massachusetts, 2001 to 2008, Assistant Professor

Professional Experience:
Trus Joist MacMillan Ltd, 1989 to 1993, Structural Engineer

Licenses/Registration:
Professional Engineer, Association of Professional Engineers and Geoscientists of British Columbia, 1990 to present

Selected Publications and Recent Research:


Professional Memberships:
• Boston Society of Civil Engineers, since 2002
• American Society of Civil Engineers, since 2001
• Association of Professional Engineers and Geoscientists of BC, since 1990
Simi Hoque, Assistant Professor, Building and Construction Technology

Courses Taught (Fall 2013-Spring 2015):
BCT 521, Building Physics 3: Environmental Control Systems, Spring 2015
BCT 311, Sustainable Indoor Environmental Systems, Spring 2015
BCT 520, Building Physics 1: Energy and Buildings, Fall 2014
BCT 597E, Building Physics 3: Building Energy and Env. Systems, Spring 2014
BCT 311, Sustainable Indoor Env. Systems, Spring 2014
BCT 597G, Building Physics 1: Energy and Buildings, Fall 2013

Educational Credentials:
Ph.D., Architecture, Univ. of California-Berkeley, 2006
Master of Architecture, Univ. of California-Berkeley, 2003
Master of Science, Civil Engineering, Carnegie Mellon University, 1997
Bachelor of Arts, Civil Engineering, Johns Hopkins University, 1996

Teaching Experience:
University of Massachusetts, 2008 to present, assistant professor
Massachusetts Institute of Technology, 2006 to 2008, adjunct lecturer
Boston Architectural Center, 2007, instructor

Professional Experience:
Norian Siani Engineering, Inc. Waltham MA, 2006-2008
Ruhl Walker Architects, Boston, MA, 2005-2006

Licenses/Registration:
Engineer-in-training (EIT), 1999
LEED A.P., 2007

Selected Publications and Recent Research:
5. (PI) MA Dept. of Energy and Environmental Resources, $60000, 2015-2016: Improved Energy Efficiency through Environmental Control

Professional Memberships:
Society of Building Science Educators, member
Building Technology Educators Society, board of directors
ASHRAE, associate member
Ho-Sung Kim, Lecturer, Building and Construction Technology

Courses Taught:
Arch 550, Tectonics I, Fall 2014

Educational Credentials:
Doctor of Philosophy in Architecture, University of Illinois, 2013
Master of Science in Civil Engineering, University of Illinois, 2009
Master of Architecture, University of Illinois, 2007
Bachelor of Science, University of Missouri, 2001

Teaching Experience:
University of Massachusetts, 2014 to present, lecturer

Professional Experience:
University of Illinois, 2008-9
Perkins+Will, Los Angeles, CA, 2007-8

Licenses/Registration:
None

Selected Publications and Recent Research:
“Advances in the operating condition design analysis of air based photovoltaic thermal solar roof systems”, 2013

Professional Memberships:
None
Alexander Schreyer, Senior Lecturer and BCT Program Director

Courses Taught (Fall 2013-Spring 2015):
Arch 653, Tec III, Fall 2014
Arch-Des 653, Tec III, Fall 2013
*This course covers NAAB-requirements for structural systems.

Educational Credentials:
MASc, University of British Columbia, Vancouver, Canada 2003
Dipl.-Ing., University of Applied Sciences, Wiesbaden, Germany, 1998

Teaching Experience:
University of Massachusetts, 2013 to present, Senior Lecturer
University of Massachusetts, 2003 to 2013, Lecturer

Professional Experience:
N/A

Licenses/Registration:
N/A

Selected Publications and Recent Research:
http://sketchupfordesign.com - SketchUp blog

Professional Memberships:
Building Technology Educators’ Society (BTES), Moscow, ID, USA
National Institute of Building Sciences (NIBS), buildingSMART Alliance, Washington, DC, USA
Bund Deutscher Baumeister, Architekten und Ingenieure (BDB), Berlin, Germany
Name: Ben Weil, Extension Assistant Professor, Building and Const. Tech.

Courses Taught (Fall 2013-Spring 2015):
BCT 211—Energy efficient housing
Seminar—building energy retrofit
Seminar—LEED

Educational Credentials:
PhD (Environmental Studies), UC Santa Cruz
MA (History, Syracuse Univ)
BA (History, UMass Amherst)

Teaching Experience:
University of Massachusetts, 2011 to present

Professional Experience:
Extension program in building energy, 2011 to present

Licenses/Registration:
Certified with Building Performance Institute

Selected Publications and Recent Research:


“Conservation, Exploitation, and Cultural Change in the Indian Forest Service.” Environmental History, April 2006


“Soar City, Bike City, Growth City: Local Governance and Renewable Energy in Davis, California”, Society for Social Studies of Science Annual Meeting, Montréal, QC. October 12, 2007

“Forest or Flood: the Ongoing Conversation Between Foresters and Engineers in British India”, American Society for Environmental History Annual Meeting, Baton Rouge, Louisiana, March 1, 2007


Timothy M. Rohan, associate professor, Department of the History of Art & Architecture

Courses Taught (Fall 2013-Spring 2015)
Art History 385/585 - Frank Lloyd Wright Houses (Fall 2013 & 2014)
Art History 342/642 – 19th Century Architecture (Fall 2014)

Educational Credentials:
PhD, History of Art & Architecture, Harvard University, 2001
BA, Art History and English, Yale University, 1991

Teaching Experience
University of Massachusetts, Amherst, Fall 2001 to present
Vassar College, lecturer, Fall 2000 & Spring 2001

Grants & Awards
• Graham Foundation Publication Grant, Spring 2010
• Whiting Fellowship for research travel in Southeast Asia, April 2009
• Kluge Research Fellowship. The Library of Congress, Washington D.C. (8 months- Summer ’07 and Summer/Fall ’08).
• Faculty Research Grant, University of Massachusetts, Amherst (Summer 2006)
• Research fellowship. Canadian Centre for Architecture, Montreal (Spring 2004).

Selected Publications
The Architecture of Paul Rudolph (Yale University Press, 2014)
“Concrete Baroque,” The Boston Sunday Globe, Sept. 7, 2014, K1, K5
Kerry L. Dietz AIA, LEED AP, Lecturer

Courses Taught (Fall 2013-Spring 2015):
Arch 660 – Fall 2013, Professional Practice
Arch 660 – Fall 2014, Professional Practice
Arch 660 – Fall 2015, Professional Practice

Educational Credentials:
Master of Architecture, University of Michigan, 1977
Bachelor of Science, Architecture, Kent State University, 1975
Mediation Works, Inc., 40 Hour Mediation Training, 2008

Teaching Experience:
University of Massachusetts, 2009 to present, lecturer

Professional Experience:
Dietz & Company Architects, Inc., Principal/President, 1985 to present
Dietz & Burdick Architects, Partner, 1985-1984
Studio One Architects, 1984-1979
Architects, Inc., 1979-1977

Licenses/Registration:
Massachusetts, Architect, 1982 to present
Connecticut, 1984 to present
Maine, 1987 to present
Vermont, 1999 to present
North Carolina, 2002 to present
Rhode Island, 2003 to present
New Hampshire, 2004 to present

Selected Publications and Recent Research:
“Battered Women’s Shelter” in More Than Housing, Lifeboats for Women and Children by Joan Sprague
“Scattered Site Housing in Holyoke” in The Affordable Housing Challenge by Anne Gelbspan

Juries:
American Institute of Architects’ 2006 Housing and Residential Design Knowledge Community Housing Awards, Jury Chair
American Institute of Architects/HUD Housing Awards 2006, Jury Chair
Celebrating the American Home: 50 Great Houses from 50 American Architects, Taunton Press, 2005
American Institute of Architects New England Awards 2003, Jury Member

Professional Memberships:
American Institute of Architects, Member
American Arbitration Association, Construction Panel Member
Community Foundation of Western Massachusetts, Trustee
Margaret Birney Vickery PhD, Senior Lecturer, Departments of the History of Art & Architecture, and Architecture

Courses Taught (Fall 2013-Spring 2015):
Arch 370: Junior Year Writing, Spring 2015
Art-Hist 110: Introduction to Art History, Spring 2015
Arch 370: Fall 2014
Arch 370: Spring 2014
Arch 370: Fall 2013

Educational Credentials:
PhD Stanford University, 1993
MA Stanford University, 1988
Bachelor of Arts, Oberlin College, 1985

Teaching Experience:
University of Massachusetts, 2013 to present, Senior Lecturer
University of Massachusetts, 2009 Adjunct
University of Bristol, UK Continuing Education Department, Lecturer, 1993-4

Professional Experience:
Free-lance Architectural Writer, Historic Preservation, 2013- present
Guest Curator, University Museum of Contemporary Art, University of Massachusetts, 2007-10

Selected Publications and Recent Research:
“Greening the Valley: Sustainable Architecture on the Pioneer Valley”
Supplement to the Daily Hampshire Gazette, February 8, 2010
The Campus Guide: Smith College
(New York: Princeton Architectural Press, 2007)
“Lady Margaret Hall and Somerville College, Oxford: Their Architectural and Social Context” Victorian Society Annual, 1992

Professional Memberships:
Society of Architectural Historians
## Faculty Matrix

Note: in addition to the scheduled courses listed in matrices, most faculty also served on thesis committees and as sponsors of independent studies

### Fall 2013

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<thead>
<tr>
<th>Faculty member (alpha order)</th>
<th>Research/Creative work area (based on strategic plan)</th>
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# COURSE DESCRIPTIONS

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Number & Title of Course (total credits awarded)
Arch 100: Introduction to Architecture Design and Graphics (4 Credits)

Course Description:
This course is an introduction to fundamental "design thinking" and graphic communication skills in architecture.

Course Goals & Objectives:
- observational drawing; rendering
- two- and three-dimensional design skills
- freehand drawing used for visualization and conceptualization
- orthographic projection, graphic systems and perspective
- speculative design: theory and practice
- exposure to contemporary art, architecture and design
- vocabulary to discuss art, architecture and design

Student Performance Criterion/a addressed:
none

Topical Outline (include percentage of time in course spent in each subject area):
Each section includes lectures, slide presentations, studio work, reading, discussions, and critique:
1. Observational drawing (line, shape, tone, value)- 25%
2. Drawing systems (orthographic projection, perspective)- 25%
3. Speculative drawing and design (diagraming, appropriation, integration)- 25%
4. Creations in space (cubism, assemblage, collage)- 25%

Prerequisites:
none

Textbooks/Learning Resources:
Design Drawing, By Francis D.K. Ching
Creation in Space: A Course in the Fundamentals of Architecture, By Jonathan Block Friedman

Offered:
Spring 2015

Faculty assigned:
Stephen Schreiber, Sandy Litchfield
Number & Title of Course (total credits awarded):
Arch 300, Design I, 4 credits

Course Description
Studio. Development of a conceptual basis for design and planning. Basic spatial concepts, design skill development and communications skills applied to presentation of design solutions. Model-making, 2-D presentations of abstract and simple spaces.

Course Goals & Objectives (list):
- Breakdown pre-conceived ideas of the nature of architecture and design.
- Introduction to a process-oriented approach to design through a variety of design methodologies.
- Learn abstract and critical thinking skills and link it to concrete realization.
- Understand the visual and verbal vocabulary of architecture and design.
- Understand and use the process of critique through desk crits, informal pin-ups and formal presentations.
- Gain practical drawing, digital representation and model making skills.
- Develop an awareness of the importance of visual, verbal and writing skills for design communication.

Student Performance Criterion/a addressed (list number and title):
None

Topical Outline (include percentage of time in course spent in each subject area):
Early weeks of the studio will focus on movement analysis/studies 20%
Mid-semester is spent on form, space and material studies in concrete and wood 30%
The last half of the semester focuses on translation/transformation from form making to simple programmed space and preparation of the documentation for final review. 50%

Prerequisites:
Art Foundations course work, or consent of instructor.

Textbooks/Learning Resources:
“Media Crossovers” by Sigrid Miller Pollin
“A Way at Looking at Things” in Thinking Architecture by Peter Zumthor
“Intertwining” by Steven Holl

Offered (semester and year):
Fall

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Rachael Chase, Joseph Krupczynski, Fall 2013
Rachael Chase, Joseph Krupczynski, Fall 2014
Number & Title of Course (total credits awarded):
Arch 301, Design II, 4 credits

Course Description
Studio. Studio projects consist of basic architectural problems to which the student must respond with a designed solution. Problems develop analytical and aesthetic design and presentation skills. Design projects will emphasize technical integration. Major projects considered along with a minor project, written assignment(s) and in-class exercises.

Course Goals & Objectives (list):
- Explore process-oriented approaches to design and investigate a variety of design methodologies for the resolution of spatial problems.
- Analyze architectural precedents and examine the spatial and formal principles inherent in architecture.
- Develop skills to understand “program” conceptually, experientially, and analytically, and communicate that information graphically.
- Develop skills to understand “site” conceptually, experientially, and analytically, and communicate that information graphically.
- Develop increased abstract and critical thinking skills and link it to concrete realization.
- Continue to develop visual design communication skills through both manual and digital representation.
- Continue to develop verbal and written skills for design communication.

Student Performance Criterion/a addressed (list number and title):
None

Topical Outline
Early weeks of the studio will focus on precedent studies and abstract form-making. 20%
Mid-semester is spent on site and program analysis, followed by conceptual design. 30%
The last half of the semester will focus on schematic design, design development, and preparation of the documentation for final review. 50%

Prerequisites:
Arch 300, Design I

Textbooks/Learning Resources:
“Transparency: Literal and Phenomenal” by Colin Rowe and Robert Slutzky
“Reciprocity,” from Inside Outside by Anita Berrizbeitia and Linda Pollak
“Eidetic Operations and New Landscapes,” by James Corner
On-line research on Allied Works (http://www.alliedworks.com/) and BIG (http://www.big.dk/)

Offered (semester and year):
Spring

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Carey Clouse, Joseph Krupczynski, Spring 2014
Carey Clouse, Joseph Krupczynski, Spring 2015
Number & Title of Course (total credits awarded):
Arch-Design 370: Junior Year Writing for Architecture and Design Students
3 credits

Course Description (limit 25 words)
Required for all Design majors during their junior or senior year students hone their writing within their architecture major.

Course Goals & Objectives (list):
• investigate different approaches to writing about architecture
• improve writing skills, work toward developing student’s voice when writing about architecture in general and their own work in particular
• Through a variety of readings, field trips to buildings on campus and writing exercises students gain experience and a new understanding of the important partnership between architecture and the written word
• Students develop a working vocabulary of architectural terms and their proper use in architectural writing, review common grammar rules and issues surrounding plagiarism

Student Performance Criterion/a addressed (list number and title):
None

Topical Outline (include percentage of time in course spent in each subject area):
This course includes weekly writing assignments that are peer reviewed as drafts. These short assignments are designed to increase students’ fluency when writing and improve their confidence. They are also intended to introduce students to the many ways in which architects write in their profession. Longer projects include a newsletter entry and an architect profile. Some newsletter entries are published in the local Western MA AIA newsletter.

Prerequisites:
Only open to juniors or seniors admitted to the Architecture and Design program

Textbooks/Learning Resources:

Offered (semester and year):
Every semester

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Margaret Birney Vickery Fall 2013
Margaret Birney Vickery Spring 2014
Margaret Birney Vickery Fall 2014
Margaret Birney Vickery Spring 2015
Number & Title of Course:
Arch 400, Design Studio III, 4 credits

Course Description:
Studio. In-depth exploration of increasingly complex planning and architectural programming, social context of design and environmental issues. Continued exploration of design through written, visual, and dimensional opportunities.

Course Goals & Objectives:
- Research methodologies
- Site analysis
- The role of precedents and case studies
- Programming
- Continued development of the individual design process
- Sustainable design strategies
- Digital design skills and software programs
- Development of design communication skills through written, verbal, 2D and 3D formats.

Student Performance Criteria addressed:
None

Topical Outline:
Early weeks of the studio will focus on precedents, site analysis and development. 20%
Students will be expected to develop concepts and visual representations of their designs, and proceed with schematic design. 30%
The last part of the semester will focus on design development, and preparation of the documentation for final review. 50%

Prerequisites:
Arch 300

Textbooks/Learning Resources:

Offered:
Fall

Faculty assigned:
Carey Clouse, Caryn Brause, Fall 2013
Stephen Schreiber, Ajla Aksamija, Fall 2014
Number & Title of Course (total credits awarded)
Arch 401-01    Design IV    5 credits:

Course Description:
Several complex design projects selected and explored from commercial, institutional, hospitality and retail perspectives. Interdisciplinary and/or large scale team projects undertaken. Emphasis placed in individual design approach illustrating student’s strengths. Satisfies Integrative Experience requirement for BFA-Arch majors.

Course Goals & Objectives:
• Analysis and critical thinking in the architectural design process
• Further developing technological literacy
• Site, program and client research on a project by project basis
• Programming
• Continued development of the individual design process
• Sustainable design strategies
• Exploring the integration of basic structural systems in architectural design
• Development of design communication skills through written, verbal, 2D and 3D formats

Student Performance Criteria addressed:
None

Topical Outline:
Early weeks of the studio will focus on site analysis and development,. 20%
Students will be expected to develop concepts and visual representations of their designs, and proceed with schematic design. 30%
The last part of the semester will focus on design development, and preparation of the documentation for final review. 50%

Prerequisites:
Arch 301, Design II

Textbooks/Learning Resources:
Project research related articles assigned at various intervals during the semester

Offered:
Spring 2014 and 2015

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Stephen Schreiber and Sigrid Miller Pollin  Spring 2014 and 2015
Number & Title of Course (total credits awarded):
Arch 403, Design V, 6 credits

Course Description:
Projects developed to explore the principles and process of architectural design and the development of structure and enclosure. Design projects, sketch problems. Satisfies the Integrative Experience requirement for BFA-Arch majors.

Course Goals & Objectives (list):
• Research methodologies—focus on studying relationship of design to culture
• Site analysis
• The role of precedents and case studies
• Programming
• Continued development of the individual design process
• Sustainable design strategies
• Digital design skills and software programs
• Development of design communication skills through written, verbal, 2D and 3D formats

Student Performance Criterion/a addressed (list number and title):
None

Topical Outline:
Cultural and Architectural Research & Precedent studies 25%
Design 50% of the grade
Sketchbook/notebook 10%
Classroom participation, attendance and community group interaction 15%

Prerequisites:
Arch 401, Design IV

Textbooks/Learning Resources:

Offered (semester and year):
Fall every year

Faculty assigned:
Ray K Mann, Carey Clouse, Fall 2012
Ray K Mann, Stephanie Brown, Fall 2013
Ray K Mann, Naomi Darling, Fall 2014
Number & Title of Course (total credits awarded):
Arch 404, Design VI, 6 credits

Course Description
Students initiate a complex project selected in consultation with instructor and the faculty. Research may deal with historical aspects of the building, behavioral attitudes of users, and/or the program. Students expected to work independently and under faculty guidance.

Course Goals & Objectives (list):
- Link community, social and cultural contexts to creative process-oriented approaches to art/design engagement
- Negotiate and support dialogue between political / environmental / social / historic / cultural / constructional forces.
- Learn to use cultural critique / investigative research / inventive analysis / in the production of engagement projects that challenge dominant social and political structures.
- Evolve critical practices that work to create spaces that reveal, instigate and make explicit issues of political, cultural and social relationships.
- Recognize that the “community” is intrinsically linked to the production of its space, and that critical practices contribute as dynamic partners in that production.
- Continue to develop art/design communication abilities through effective and integrated visual, digital, verbal and writing skills.
- Measure your work as architects, artists, and designers not by the forms that we create, but through social formations we provoke and support as cultural agents.

Student Performance Criterion/a addressed (list number and title):
None

Topical Outline (include percentage of time in course spent in each subject): Early weeks of the studio are seminar-like with extensive readings/discussion 20%
Mid-semester is spent on establishing contact with a community partner and developing preliminary design responses 30%
The last half of the semester focuses on the completion of an art/design project for a community partner and preparation of the documentation for the final review. 50%

Prerequisites:
ARCH 401, Design 4

Textbooks/Learning Resources:
Jodi Rios, “Reconsidering the Margin: Relationships of Difference and Transformative Education”
Doina Petrescu, “How to Make a Community As Well As The Space for It”
Tom Finkelpearl, ‘Paulo Freire: Discussing Dialogue’ in: Dialogues in Public Art
Teddy Cruz, “Border Postcards: Chronicles from the Edge”

Offered (semester and year):
Spring

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Joseph Krupczynski, Spring 2014
Joseph Krupczynski, Spring 201
Number & Title of Course (total credits awarded):
Arch 500, Graduate Design I, 6 credits

Course Description
Introduction to architectural design. Studio projects consist of basic architectural problems to which student must respond with designed solution. The exploration of how a project is generated through careful attention to program and site.

Course Goals & Objectives (list):
- Breakdown pre-conceived ideas of the nature of architecture and design.
- Introduction to a process-oriented approach to design through investigative/experimental methodologies.
- Develop skills to understand "program" conceptually, experientially, and analytically, and communicate that information graphically.
- Learn abstract and critical thinking skills and link it to concrete realization.
- Develop an awareness of the importance of visual, verbal and writing skills for design communication.
- Understand the visual and verbal vocabulary of architecture and design.
- Understand, use and respond to the process of critique to develop your work.
- Gain practical drawing, digital imaging and model making skills.

Student Performance Criterion/a addressed (list number and title):
A.2 Design Thinking Skills
A.4 Architectural Design Skills
A.5 Ordering Systems

Topical Outline (include percentage of time in course spent in each subject area):
Early weeks of the studio will focus on design methodologies and abstract form-making 20%
Mid-semester is spent on formal translation/transformation to simple programmed space 30%
The last half of the semester focuses on a programmed architectural project on a simple site and preparation of the documentation for the final review. 50%

Prerequisites:
Admission to MArch program.

Textbooks/Learning Resources:
"Intertwining" by Steven Holl
"The Split Wall: Domestic Voyeurism," by Beatriz Colomina’s
Poems for Architects by Jill Stoner
"2 Architects / 10 Questions on Program" by Rem Koolhaas + Bernard Tschumi (Praxis 8)
"Mansilla + Tunon: Disciplined Play," by Stan Allen

Offered (semester and year):
Fall

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Joseph Krupczynski, Fall 2013
Joseph Krupczynski, Fall 2014
Number & Title of Course (total credits awarded):
Arch 501, Grad Design II, 6 credits

Course Description:
Introduction to architectural design studio projects consist of basic architectural problems to which students must respond with designed solution. Studio projects emphasize the evolution of a project through careful attention to program and site. Emphasis on acquiring the skills necessary to communicate design intention.

Course Goals & Objectives (list):
• Introduction to Systems Thinking in design
• Site analysis
• The role of precedents and case studies
• Programming
• Continued development of the individual design process
• Sustainable design strategies
• Digital design skills and software programs
• Development of design communication skills through written, verbal, 2D and 3D formats

Student Performance Criterion/a addressed (list number and title):
A.4 Architectural Design Skills
A.5 Ordering Systems
A.6 Use of Precedents
A.8 Cultural Diversity and Equity

Topical Outline:
Architectural Research & Precedent studies 30%
Design 60% of the grade
Classroom participation, attendance and community group interaction 10%

Prerequisites:
Arch 500, Grad Design I

Textbooks/Learning Resources:
Meadows, Donella H., Thinking in Systems, 2008

Offered (semester and year):
Spring every year

Faculty assigned:
Caryn Brause, Spring 2013
Ray K Mann, Spring 2014, 2015
Number & Title of Course (total credits awarded):
Arch 520, Building Physics 1 – Energy and Buildings, 3 credits

Course Description (limit 25 words):
This course serves both as an introduction to the physical processes lying behind the sustainable design of a building and as an initiation for the integration of technology in architecture.

Course Goals & Objectives (list):
• Energy use in buildings
• Thermal comfort
• Passive design strategies for energy conservation
• Heat transfer calculations for whole building energy analysis
• Computational analysis of building energy use
• Development of scientific report writing skills

Student Performance Criterion/a addressed (list number and title):
B.6 Environmental Systems

Topical Outline (include percentage of time in course spent in each subject area):
Phase 1 – energy use in buildings, 10%
Phase 2 – passive design strategies (for heating and cooling), 40%
Phase 3 – heat transfer calculations, 40%
Integration of the learning objectives with computational analysis, 10%

Prerequisites:
None.

Textbooks/Learning Resources:
Heating, Cooling, and Lighting: Sustainable Design Methods for Architects by Norbert Lechner (3rd ed.)

Offered (semester and year):
Fall 2014

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Simi Hoque, Fall 2014
Simi Hoque, Fall 2013
Ben Weil, Fall 2012
Simi Hoque, Fall 2011
Number & Title of Course:
Arch 540, Analysis + Representation I, 3 credits

Course Description:
Lecture/Laboratory. This course aims to strengthen students’ ability to represent and present their ideas visually. The lab focuses on digital skills, and teaches several design software programs. Students learn modeling and representation skills, as well as methods for conceptualizing and representing architectural design.

Course Goals & Objectives:
- Architectural graphics
- Graphic design
- Digital representation of architectural design
- Modeling architectural spaces
- Building Information Modeling
- Basics of rendering
- Architectural presentation
- Development of design communication skills through 2D and 3D formats.

Student Performance Criteria addressed:
A.1 Professional Communication

Topical Outline:
Early weeks focus on images and representation, manipulation and composition of images. Students learn the basic of graphic design and architectural presentation (Adobe Photoshop, Adobe InDesign and Adobe Illustrator software programs). 10%
Students select a case study of an existing building, analyze their design and components, and develop a 3D model in Rhino. Students learn to express design in three dimensions using digital tools, and rendering skills. Students learn about interoperability between different programs. 20%
Students then learn about Building Information Modeling, and use Autodesk Revit to develop a BIM of their case study building. Students learn how to develop different views of the model (floorplans, sections, elevation), and how to annotate architectural drawings. 20%
The last part of the semester focuses on preparing a final presentation, which showcases all activities completed during the semester. 50%

Prerequisites:
None

Textbooks/Learning Resources:
Tutorials and instructional materials

Offered:
Fall 2013, Fall 2014

Faculty assigned:
Pari Rahi (undergraduate section), Caryn Brause (graduate section) Fall 2014
Ajla Aksamija (undergraduate section), Caryn Brause (graduate section) Fall 2013
Number & Title of Course:
Arch 541, Analysis + Representation II, 3 credits

Course Description:
Lecture/Laboratory. This course aims to strengthen students’ ability to represent and present their ideas visually. The lab focuses on digital skills, and advances students’ knowledge of several design software programs. Students learn modeling and representation skills, as well as methods for conceptualizing and representing architectural design.

Course Goals & Objectives:
- Architectural graphics
- Graphic design
- Digital representation of architectural design
- Modeling architectural spaces
- Building Information Modeling
- Advanced rendering
- Architectural presentation
- Development of design communication skills through 2D and 3D formats.

Student Performance Criteria addressed:
None

Topical Outline:
Students begin the course by strengthening their 3D modeling skills in Rhino. They select a design studio project, and develop a 3D model. 10%

Then, students work on creating different views, renderings and presentation material using several software programs (Rhino, VRay, Adobe Photoshop, Adobe InDesign and Adobe Illustrator software programs). They create exterior and interior rendered perspectives, and learn about manipulation of images for architectural representation. 20%

Then, students develop a BIM of their design using Autodesk Revit, and create architectural documents (floorplans, sections, elevations) and how to annotate architectural drawings. 20%

Students prepare final presentation, which showcases all activities completed during the semester. 50%

Prerequisites:
Arch 540

Textbooks/Learning Resources:
Tutorials and instructional materials

Offered:
Spring 2014, Spring 2015

Faculty assigned:
Robert Marcalow (undergraduate and graduate sections) Spring 2015
Ajla Aksamija (undergraduate section), Caryn Brause (graduate section) Spring 2014
Number & Title of Course:
Arch 550, Tectonics I, 3 credits

Course Description (limit 25 words)
Analysis and review of the entire light-frame construction process, from regulation and design through site preparation, project management, and ultimate delivery of a completed structure.

Course Goals & Objectives (list):
Design & Construction Community
Material Wood, Masonry, & Concrete
Rough Sitework & Foundations
Floor, Wall, & Roof Framing
Finishing & Envelope Protection
Plumbing, HVAC, & Electrical
Water Management
Insulation & Air Sealing
Drywall
Jobsite Safety

Student Performance Criterion/a addressed (list number and title):
B.8 Building Materials

Topical Outline (include percentage of time in course spent in each subject area):
Design & Construction Community. 5%
Material Wood, Masonry, & Concrete. 10%
Rough Sitework & Foundations. 10%
Floor, Wall, & Roof Framing. 15%
Finishing & Envelope Protection. 10%
Plumbing, HVAC, & Electrical. 15%
Water Management. 10%
Insulation & Air Sealing. 10%
Drywall. 10%
Jobsite Safety. 5%

Prerequisites:
None

Textbooks/Learning Resources:
3rd Edition of "Fundamentals of Residential Construction" by Allen and Thallon

Offered (semester and year):
Fall

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Paul Fisette, Fall 2013
Ho-Sung Kim, Fall 2014
Number & Title of Course:
Arch 591S, Sustainable and High-Performance Facades Seminar, 3 credits

Course Description:
Seminar. This course is intended to develop students’ skills in designing sustainable, high-performance building facades and to broaden their knowledge about sustainable facade materials, design methods, systems, simulations and modeling tools, and facade performance.

Course Goals & Objectives:
- Research methodologies
- Sustainable design methods for facades
- Emerging facade technologies
- Methods for improving daylight, thermal comfort, air quality through facade design
- Advanced construction materials
- Environmental impact of facade systems
- Building performance tools and simulations
- Analytical processes for facade design
- Preparation of technical documentation
- Testing procedures for facades
- Development of design communication skills through written, verbal, 2D and 3D formats.

Student Performance Criteria addressed:

Topical Outline:
Early weeks of the seminar focus on precedents, analysis of facade systems, and research. 20%
Students are expected to develop technical documentation, analyze facade system of an existing building, and complete a mid-term paper. Students present their projects in class. 30%
For final project, students design a high-performance facade system for a hypothetical building, developing strategies for improving environmental performance, selecting appropriate materials and preparing technical documentation. Students complete a final paper, technical documentation, and present the outcomes in class. 50%

Prerequisites:
None

Textbooks/Learning Resources:

Offered:
Spring 2015

Faculty assigned:
Ajla Aksamija, Spring 2015
Number & Title of Course:

Arch 597G Great Spaces 3 credits

Course Description:

Course Goals & Objectives (list):
This elective course is a non-chronological survey of memorable spaces organized by specific spatial characteristics. It is intended to encourage students to analyze personal and general reactions to spaces through rational observation, emotional response, categorization, and consideration of the appropriate language that describes a space or structure.

Student Performance Criterion/a addressed:
None

Topical Outline (include percentage of time in course spent in each subject area):
In class lectures and slide presentations 75%
Discussions and student presentations 25%

Prerequisites:
None

Textbooks/Learning Resources:
Articles assigned on related topics throughout the semester

Offered:
Spring 2014 and 2015

Faculty assigned:
Sigrid Miller Pollin
**Number & Title of Course:**
Arch 601, Graduate Design IV, 6 credits

**Course Description:**
Studio. The studio focuses on advanced topics and design of complex building types. Emphasis on refined planning, design and presentation techniques, building systems and design of building envelopes, sustainable and environmental design, as well as preparation of architectural documentation.

**Course Goals & Objectives:**
- Research methodologies and site analysis
- The role of precedents and case studies
- Programming and continued development of the individual design process
- Design of mixed-use complex buildings
- Emerging building technologies
- Advanced building systems and new construction materials
- Digital design skills and software programs, especially focusing on building performance analysis and energy modeling
- Development of design communication skills through written, verbal, 2D and 3D formats.

**Student Performance Criteria addressed:**
A.6 Use of Precedents,
B.1 Pre-Design,
B.3. Codes and Regulations,
B.4 Technical Documentation,
C.2 Integrated Evaluations,
C.3 Integrative Design

**Topical Outline:**
Early weeks of the studio focus on precedents, site analysis and development and programming. 20% Students are expected to develop concepts and visual representations of their designs, and proceed with schematic design. 10%
After schematic design, students conduct energy modeling, and based on the results proceed with design development. 20%
The last part of the semester focuses on design development, and preparation of the documentation for final review. 50%

**Prerequisites:**
Arch 600, Graduate Design III

**Textbooks/Learning Resources:**

**Offered:**
Spring 2015, Spring 2014

**Faculty assigned:**
Ajla Aksamija, Spring 2015 and Spring 2014
Number & Title of Course:
Arch 602, Graduate Design V, 6 credits

Course Description:
Studio. The studio focuses on design of complex building types, and it is aimed to strengthen students' digital skills, ability to incorporate sustainable design and emerging building technologies. Students learn about the advances in technology, sustainable and high-performance building systems, emerging materials, as well as novel ways to represent their ideas and design.

Course Goals & Objectives:
- Research methodologies
- Site analysis
- The role of precedents and case studies
- Programming
- Design of complex building types
- Emerging building technologies
- Advanced building systems and new construction materials
- Preparation of design competition documentation
- Development of design communication skills through written, verbal, 2D and 3D formats.

Student Performance Criteria addressed:
None

Topical Outline:
Early weeks of the studio focus on site analysis and programming. 10%
Students are expected to develop concepts and visual representations of their designs, and proceed with schematic design. 10%
After schematic design, students conduct energy modeling, and based on the results proceed with design development. 20%
The last part of the semester focuses on design development, and preparation of the documentation for final review. 60%

Prerequisites:
Arch 601, Graduate Design IV

Textbooks/Learning Resources:
None

Offered:
Fall 2013, Fall 2014

Faculty assigned:
Sigrid Miller Pollin, Rachael Chase Fall 2014
Ajla Aksamija, David Sheerin Fall 2013
Number & Title of Course:
Arch 600, Graduate Design Studio III, 6 credits

Course Description
Studio. Projects developed and presented by student with individual attention from instructor. Each project reviewed by open jury system with visiting critics. Readings from texts and journals.

Course Goals & Objectives (list):
• Research methodologies
• Site analysis
• The role of precedents and case studies in architecture and landscape architecture
• Interdisciplinary team dynamics / collaborative processes
• Programming
• Regulatory systems
• Continued development of the individual design process
• Sustainable design strategies
• Digital design skills and software programs
• Development of design communication skills through written, verbal, 2D and 3D formats

Student Performance Criterion/a addressed (list number and title):
B.2 Site Design

Topical Outline
A primary activity of the studio will be to examine the relationship of site and building. There will be opportunities for individual work and for team collaborations. Studio time will be used to share research and analysis and to work with instructors and peers to continue and advance individual and team designs. Work will be reviewed and discussed in individual desk critiques, informal pin-up sessions and more formal final reviews in the studio. Class discussions, readings and written responses will supplement the studio work.

Prerequisites:
Arch 500, Graduate Design Studio II

Textbooks/Learning Resources:
Heschong, Lisa. Thermal Delight in Architecture
Holl, Pallasmaa, Perez-Gomez. Questions of Perception
Immater/ultramaterial : architecture, design, and materials / edited by Toshiko Mori.
Pallasmaa, Juhani. The Eyes of the Skin
Rasmussen, Steen Eiler. Experiencing Architecture
Tanizaki, Junichirō. In praise of shadows
Zumthor, Peter. Thinking architecture
Zumthor, Peter. Atmospheres

Offered (semester and year):
Fall

Faculty assigned Kathleen Lugosch, Mark Lindhult, Fall 2013 and Fall 2014
Number & Title of Course (total credits awarded):  
Arch 620, Building Physics II, 3 credits

Course Description:  
The importance of light and acoustics in shaping the physical environment. Developing a lighting plan. Lecture topics include the physics of light and color, basic electricity, the characteristics of different lamp sources and the psychological impact of lighting. Field trip to view successful lighting installations.

Course Goals & Objectives (list):  
• Understanding light phenomena and the visual system  
• Understanding principles of acoustics and acoustical design  
• Design and detailing for artificial and natural light  
• Quantitative evaluation of lighting and acoustics  
• Fundamentals of electricity and energy code requirements  
• Sustainable design strategies  
• Digital modeling skills  
• Technical drawing and specifications

Student Performance Criterion/a addressed (list number and title):  
B.4 Technical Documentation  
B.6 Environmental Systems  
B.9 Building Service Systems

Topical Outline:  
Architectural Research & Precedent studies 30%  
Design 60% of the grade  
Classroom participation, attendance and community group interaction 10%

Prerequisites:  
Arch 520, Building Physics I

Textbooks/Learning Resources:  

Offered (semester and year):  
Fall every year

Faculty assigned:  
Stephanie Brown, Fall 2012  
Ray K Mann, Fall 2013, 2014
Number & Title of Course (total credits awarded):
Arch 630, Philosophy of Architecture and Design, 3 credits

Course Description:
This course is an intensive reading and writing course on the central theories and philosophies shaping architectural discourse in the 20th and 21st centuries, with an emphasis on the past forty years.

Course Goals & Objectives (list):
This course is an intensive reading and writing course on the central theories and philosophies shaping architectural discourse in the 20th century, with an emphasis on the past forty years. We will look at some of the key thinkers and theoretical approaches that have shaped 20th century architecture (phenomenology, structuralism, postmodernism) and then move to read some of the classic works of 20th century writing on architecture. The goal of the course is twofold: to gain some mastery over the foundations of 20th century architectural theory, and, equally, to understand how architects and designers can put these theoretical explorations to work in their own practice.

Student Performance Criterion/addressed (list number and title):
A.7 History and Global Culture
A.8 Cultural Diversity and Equity

Topical Outline:
1. Readings – The heart of the course is an intense engagement with the readings, and there is a lot of it. The first set of documents will be rather dense; the others are longer, but easier to read.
2. Weekly Journal - To augment your reading, and to develop your capabilities as writers on architecture, for each class you will write a 1 to 2 page essay in which you engage with the readings for the week. You will submit the readings on the course’s Moodle website and I will ask that you read several of your colleagues’ papers before class. I will sometimes insist on a focused critique of one of the readings, or ask you to go to visit a particular building and write about it.
3. Synthesis of Readings – Each week I would like two students to work together to offer some initial insights into the key issues raised by the readings. You will sign up for this in the first week.
4. Attendance at Architecture + Design Lectures. You are expected to attend at least three of these events, and ideally more.
5. Final project -- This year is the architecture exhibition of the Venice Biennale. For your final project, you will join with two or three other class members to develop a paper and final presentation on a key element not included in Rem Koolhaas’s “fundamentals” theme.

Prerequisites:
None

Textbooks/Learning Resources:
Mallgrave, Architectural Theory: Volume II: An Anthology from 1871 to 2005
Alain de Botton, Architecture of Happiness
Le Corbusier, Towards a New Architecture
Jane Jacobs, Death and Life of Great American Cities
Venturi, Complexity and Contradiction in Architecture Or Venturi and Scott Brown, Learning from Las Vegas
Christopher Alexander, A Pattern Language: Towns, Buildings, Construction
Rem Koolhaas, Delirious New York
Elaine Scarry, On Beauty and Being Just
Strunk and White, Elements of Style
Mircea Eliade, The Sacred and The Profane: The Nature of Religion

Offered (semester and year):
Fall every year

Faculty assigned: Max Page
Number & Title of Course (total credits awarded):
Arch 650 (lect) + BCT597BM (lab), Tectonics II, 4 credits

Course Description
Lecture and Lab.
Introduction to the mechanical behavior of building materials for students of construction technology and architecture. Basic structural concepts, including statics and strength of materials, are addressed in a practical hands-on manner.

Course Goals & Objectives (list):
• Analyze external and internal forces in statically determinate plane structures
• Calculate stresses and strains in axial members
• Determine bending and shear stresses in simple beams
• Calculate beam deflection
• Solve simple beam design equations

Student Performance Criterion/a addressed (list number and title):
B.5 Structural Systems

Topical Outline (include percentage of time in course spent in each subject area):
• Forces, Moments & Equilibrium 15%
• Determinacy and Distributed loads 5%
• Trusses 15%
• Stress and Strain 20%
• Cross-sectional Properties 10%
• Shear & Moment Diagrams 10%
• Beam Stresses 15%
• Beam Sizing 10%

Prerequisites:
MATH 104 or Higher and PHYSICS 131 or Higher

Textbooks/Learning Resources:

Offered (semester and year):
Spring

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Peggi Clouston, 2013, 2014 and 2015
Number & Title of Course (total credits awarded):
Arch 652, Building Physics III (also offered as Eco 597, Advanced energy).

Course Description (limit 25 words):
This course focuses on environmental control systems in buildings. The goal is to analyze, design, and optimize heating and cooling technology, including plumbing systems.

Course Goals & Objectives (list):
• Heat transfer calculations for whole building energy analysis
• Mechanical systems design – heating, ventilation, and air conditioning systems
• Plumbing systems design – water and waste
• ASHRAE standards and guidelines
• Computational analysis of building energy use, eQuest
• Development of scientific report writing skills

Student Performance Criterion/a addressed (list number and title):
B.6 Environmental Systems
B.9 Building Service Systems

Topical Outline (include percentage of time in course spent in each subject area):
Phase 1 – heat transfer calculations, 15%
Phase 2.1 – heating systems, 20%
Phase 2.2 – air conditioning systems, 20%
Phase 2.3 – ventilation systems, 20%
Phase 3 – plumbing systems, 15%
Integration of the learning objectives with computational analysis, 10%

Prerequisites:
BCT 520 or equivalent.

Textbooks/Learning Resources:
Building Technology, Mechanical and Electrical Systems (2nd Edition), Benjamin Stein

Offered (semester and year):
Spring 2015
Number & Title of Course (total credits awarded):
Arch 653, Tectonics III, 3 credits

Course Description (limit 25 words)
Explores the interrelations between building functions, loads, structural system, materials and construction methods. Addressed are structural building layout, design, structural detailing, and documentation of large-scale buildings.

Course Goals & Objectives (list):
• Lay out structural systems, patterns
• Understand effects of structural loads
• Dimension spanning structural members
• Lay out lateral force-resisting systems
• Apply materials property knowledge to structural layout

Student Performance Criterion/a addressed (list number and title):
B.5 Structural Systems

Topical Outline (include percentage of time in course spent in each subject area):
• Systems, pattern and precedent (15%):
  • Regulatory constraints / Structural loads
• Form, organization and layout (15%)
• Horizontal systems (15%)
• Vertical systems (15%)
• Lateral systems (15%)
• Long-span structures (15%):
  • Approximate and preliminary design / Designing using software / Optimal design
• Material performance: Properties, uses and detailing (10%)

Prerequisites:
Arch 650 Tectonics II or equivalent

Textbooks/Learning Resources:

Offered (semester and year):
Fall

Faculty assigned (list all faculty assigned during the four semesters prior to the visit):
Alexander Schreyer, Fall 2013, 2014, 2015
Number & Title of Course (total credits awarded):
Arch 660, Professional Practice, 3 credits

Course Description:
Introduction to issues affecting operations of professional design/architecture offices: managing projects, contracts, marketing, scheduling, personnel, leadership, interpersonal communication, human behavior, finance, budgeting, ethical and legal considerations.

Course Goals & Objectives:
• Ethics and the Law – to understand the origins of practice law and its impact on our practices
• Building and Zoning Laws and Regulations – to understand the origin and theory of building and zoning codes and to be able to perform zoning and building code analyses
• Architect Services and Contracts – to be able to understand the relationship between architects’ services and the standard terms in a typical contract
• Scope of Services and Proposal Writing and Marketing - to be able to read and interpret architectural contracts relative to services and client desires, to be able to generate both written and calculated proposals for services, to be able to present oneself in an marketing presentation
• Financial and Firm Management – to understand the financial world relative to architects’ practices
• Cost Estimating and Scheduling – to be able to generate schedules for services, to understand a cost estimate and to be able to generate one

Student Performance Criterion addressed (list number and title):
D.1 Stakeholder Roles in Architecture
D.2 Project Management
D.3 Business Practices
D.4 Legal Responsibilities
D.5 Professional Conduct

Topical Outline (include percentage of time in course spent in each subject area):
• Ethics and the Law  10%
• Building and Zoning Laws and Regulations  15%
• Architect Services and Contracts  30%
• Scope of Services and Proposal Writing and Marketing  25%
• Financial and Firm Management  15%
• Cost Estimating and Scheduling  5%

Prerequisites: Open to MS Design//March students only.

Textbooks/Learning Resources:

Offered (semester and year): Fall each year

Faculty assigned (list all faculty assigned during the four semesters prior to the visit): Kerry L. Dietz AIA, Fall 2013, Fall 2014
Number & Title of Course (total credits awarded):
Arch 670, Research Forum, 3 credits

Course Description:
Design criticism, current design literature, human/environment problems, design education, sociology of design, energy conservation through design, etc. Students prepare a program for Masters Project.

Course Goals & Objectives (list):
• Understanding architecture research methodologies and philosophical context
• Learn how to do a Literature Review
• Establish research direction and structure for Thesis
• Research and writing skills

Student Performance Criterion/a addressed (list number and title):
A.3 Investigative Skills
A.6 Use of Precedents
C.1 Research

Topical Outline:
Architectural Research & Precedent studies 90%
Classroom participation, attendance and community group interaction 10%

Prerequisites:
Arch 630, Philosophy

Textbooks/Learning Resources:
Massachusetts Building Code (CMR 780) 8th edition, available on-line. or IBC, IECC, etc.

Offered (semester and year):
Spring every year

Faculty assigned:
Stephanie Brown, Spring 2013
Ray K Mann, Spring 2014, 2015
Number & Title of Course (total credits awarded):

Arch 699, Master’s Thesis, total of 9 credits

Course Description:
Master’s Thesis under the direction of faculty, for the degree of Master of Architecture and Master of Science in Design.

Course Goals & Objectives (list):
The master’s thesis encourages students to engage in increasingly independent work that will be presented in both a review and a final book outlining their process over the course of the semester and their final designs. The thesis should address questions, as appropriate, related to the changing character of the city, the nature of social/cultural institutions, and the context in which their project is situated. The area of research must be developed into highly articulated projects.

Student Performance Criterion/a addressed (list number and title):
A.1 Professional Communication
A.3 Investigative Skills
A.6 Use of Precedents
B.1 Pre-Design

Topical Outline:
Each student has an assigned committee, comprised of three members of the graduate faculty. Four formal committee review meetings, each with a set of required submissions, are scheduled at appropriate intervals during the semester. These meeting agendas are:
1. Alternative Partis -- site & building strategies are to be studied, documented and presented;
2. Schematics -- in-depth development and refinement of a chosen parti is presented;
3. Design Development -- presentation makes clear that all major design decisions have been made, including wall sections illustrating materials and the integration of all building technologies;
4. Final Committee Review -- determination is made at this review as to whether the project is acceptable and can be presented to the full faculty and invited guests

Prerequisites:
Graduate Design V, Research Forum

Textbooks/Learning Resources:
Specific readings, related to students' topics, are assigned.

Offered (semester and year):
Fall and Spring every year

Faculty assigned:
Kathleen Lugosch: coordinator
All faculty: committees
Number & Title of Course:
Arch 700, Integration Studio, 3 credits

Course Description:
Studio. This course develops students’ skills for preparing construction documents and specifications. Students prepare construction documentation based on their previous design project (site-work, substructure, shell, building systems, interiors, technical details of facade and roofing systems, schedules and specifications).

Course Goals & Objectives:
- Design of complex building types and project delivery methods
- Preparation of project delivery manual
- Organization and elements of construction documents, and graphic standards
- Preparation of construction drawings and written specifications
- Universal design and accessibility
- Construction techniques
- Development of design communication skills through written, 2D and 3D formats.

Student Performance Criteria addressed:
B.3. Codes and Regulations,
B.4 Technical Documentation,
B.7 Building Envelope Systems,
B.8 Building Materials,
B.9 Building Service Systems,
B.10 Financial Considerations,
C.2 Integrated Evaluations,
C.3 Integrative Design

Topical Outline:
Early weeks focus on understanding the organization of construction documents and graphic standards, and preparation of a cartoon-set for construction drawings. 10%
Students are expected to develop annotated and dimensioned construction drawings for sitework, structural systems and building shell. 10%
Then, students proceed with development of construction drawings for interiors (detailed interior plans, reflected ceiling plans) and schedules, which are reviewed during mid-term review. 10%
Then, students develop technical details for the facade and roofing systems. Students also prepare partial specifications for either facade or roofing system. 20%
The last part of the semester focuses on final preparation of the construction documents for the final review. 50%

Prerequisites:
Arch 601

Textbooks/Learning Resources:

Offered: Fall 2015, Fall 2014

Faculty assigned:
Ajla Aksamija, Fall 2014
Number & Title of Course (total credits awarded)

**Art History 343: 20th Century Architecture**
3 credits

**Course Description and Topical Outline:**
Recognition and explanation of stylistic trends of our era, beginning with Frank Lloyd Wright and other 20th century innovators, ending with contemporary developments. Changing theories of modern architecture and their historical sources; views of modern architects through reading and critiquing. Preparation for careers in architecture, environmental design, interior decoration and art history.

**Course Goals & Objectives:**
This lecture course uses the primary ideologies of the 20th century—socialism, capitalism, and globalization—to examine the architecture, design and theory of the Modernist movement from 194 to the present. It considers the work of the founding figures—Wright, Mies, Gropius, and Le Corbusier—and significant themes such as the individual vs. the collective; European vs. American ideals; the contributions of non-western cultures, such as Japan; and the impact of war, mass-culture and new technologies. Graduate students have their own discussion section

**Student Performance Criteria addressed:**
A.7 History and Global Culture

**Course Requirements:**
Quiz - 5%
Midterm - 20%
2 short assignments - 15% each
Final paper–20%
Final exam–25%
Other papers or quizzes might be assigned as the instructor sees fit.

**Text:**
Other articles on reserve indicated on syllabus.

**Prerequisites:**
ART-HIST 110, 115 or 191A
Instructor: Timothy M. Rohan
Offered: Spring
UMass Amherst Studio Culture Policy

Adopted May 2012

Overview

The UMass Amherst Architecture+Design Program has a vibrant and engaging studio culture that emphasizes mutual respect, professionalism, and shared responsibilities among students, faculty, administrators and practitioners. This 2011 Studio Culture Policy builds upon this tradition and seeks to foster an environment of mentorship, collegiality and shared governance. The Studio Culture Policy is defined by its place within the contexts of the University's mission and values, as well as the Program's mission and philosophy.

Program Mission

The mission of the Architecture+Design Program is to provide an accessible, intellectually rigorous design education that firmly grounds students in the art and science of the built environment. The interdisciplinary, collaborative program embraces spirited, socially progressive, and environmentally responsive design. As New England's first and only public architecture program, the faculty and students engage the region in integrated teaching, research, and outreach.

Program Philosophy

The Architecture+Design Program strives to instill in our students the spirit of inquiry and professionalism. Its primary goals are: to develop each student’s problem solving abilities, to prepare him/her to deal responsibly with the complexities and ever changing issues of the built environment, to help each student understand and express his/her individual creativity and, to give all student skills needed for entry level positions in the profession. The program teaches concept-based design: Students approach their work with the understanding of concept as the generating force behind design from the early stages of development through the later more detailed tectonic stages. The conceptual strength is ultimately the strongest basis for addressing the full range of theoretical and practical concerns. The program strives to create a positive learning environment in which all students can discover and develop their own process and design methodologies.

Studio Environment

The Architecture+Design Program believes in and supports the value of the design studio model. Design studios hold vast potential as models for the integration and application of learning. Few other disciplines have courses with such direct one-on-one interaction between faculty and students, whereby students receive immediate feedback on their work. Studios are great places for students to get to know each
other and form friendships. The studio model offers tremendous potential for creative discovery, exploration of ideas, critical discussions, and intellectual risk-taking. Faculty who teach studio are expected to inspire students to learn, to engage students in critical thinking, to bring forward their particular expertise, to convey a sense of optimism about architecture, and to practice good time management. In addition to individual design projects, the Program values team and group projects at every level of design research and development. The Program supports and encourages interdisciplinary activities through which students can acquire a broad range of skills and experiences in order to become effective designers, and advocates for a quality built environment.

**Time Management**

The Program supports its students and faculty in leading balanced lives. The nature of studio coursework is time consuming, therefore it is essential to examine the critical aspect of time management. Students are encouraged to work intelligently and efficiently, not necessarily longer, in studio. Rational use of time in developing work habits is encouraged. The "tradition" of all night work is discouraged, as an indication of poor planning. As studios are open for extended hours, this temptation may exist, but the result is generally counterproductive. Set your due dates for studio projects a day before reviews so that you are fresh for your review and your peers. Develop equations for how much time you think it will take versus reality.

The Program values all of the courses in its curriculum. Students are encouraged to distribute their efforts proportionately to all academic courses. The Program makes efforts to avoid conflicting deadlines for Architecture+Design courses. Deadlines for courses not maintained by the Architecture+Design Program must be handled individually.

**Studio Space**

The studio is a learning environment that is directly affected by its qualities as a physical place. Studio is a small world – be mindful of conversations. Each studio should maintain a well ordered and constructive working environment by keeping trash picked up, neatly storing projects, and looking out for the security of the studio. Recycling of paper, cardboard and chipboard is mandatory - use the appropriate containers. Each individual studio class is responsible for the condition of the studio. Students must act in the interest of the collective good and clean up. At the end of the Fall semester the studios must be cleaned and work stored and/or well organized. At the end of the Spring semester all work must be removed, the studios must be broom cleaned and prepared for the Junior/Senior and thesis exhibits. Do not cut directly on desktops. Mark your name on your desk and stool. Grades will be withheld for students whose studio area is appropriately cleaned and/or whose desks are damaged beyond normal use (in which case, students will be required to repair desk).
Studio is stressful – note that all students get five free mental health visits at UHS. Establish a late night buddy system-- avoid working alone! Students are advised to use the University escort service. Do not drive tired (Have a friend on campus? Crash at their dorm. Or, if you are in studio late at night-- wait until morning so you can take the bus.) Protect your eyes: use the 20,20,20 rule. After 20 min on the computer look at something 20’ away for 20 seconds.

Grades

The Program acknowledges the value of design intention and process as well as design product. The Program’s grading standards for studio courses Studio assignments will be graded not only on the concept and ideas in projects, but also on the quality of drawings, models, verbal / written presentation and how well project’s concept and ideas have been expressed in designs. The Program encourages students to understand studio-based learning as a unique and valuable pedagogical model which promotes open-ended questions, for which there may be no “right” or “wrong” answers. Grades are one measure of a student’s performance in studio. Criticism, advising and counseling are considered integral to a student’s studio evaluation.

Reviews and Critiques

The desk critique, or “crit”, is a traditional unique component of design studio, a one-on-one dialogue between the student and studio instructor which acts as a form of critical feedback on both the student’s process and product in addressing assigned design problems. The studio instructor may often suggest revisions that he or she feels will better solve a particular aspect of the problem. As a follow-up to the desk crit, the student is generally expected to more fully explore and test these options and suggestions by revisiting his or her solution. This process of revisiting and revising alternative solutions, a recycling of ideas, is generally considered to be essential to the design process. The studio instructor will generally critique the quality of the student’s process of investigation and ability to reflect on his or her own process of designing and employing design strategies and thought processes. Faculty may employ this method of teaching in individual ways, some on a daily basis, and some more occasionally in deference to more general group discussions, but a general rule is that a student not present in studio during studio hours will not receive desk criticism. Design studio reviews and critiques are essential elements of studio pedagogy, enabling and promoting interaction between students, faculty, and outside visitors. Reviews are simultaneously a means of assessing student work and an opportunity to facilitate discussion of greater issues and relationships, and should be seen as a unique learning experience in which a wealth of knowledge and experience is disseminated, and not as individual evaluations. Public presentation and exhibition of design studio work is essential to studio pedagogy, and vital for the development of effective verbal communication skills. Reviews may take on different formats.
In general, students and faculty alike are expected to arrive on time and remain engaged as active participants throughout the review process. Students should be prepared for the clear and coherent presentation of their work and be prepared to discuss both their work and the work of others in the studio. Dress professionally. Participate – peer input is valuable and compliments the discussion, and sketch.

Instructors are responsible for informing invited outside reviewers about the expectations communicated to the students for the project to be reviewed, and the expectation that reviews will reflect the Program’s commitment to studio culture policy. Thoughtful and respectful dialogue, debate and discussion are expected during all reviews and presentations. Students are highly encouraged to attend all levels of final reviews to enrich their exposure and learning experience.

**Documentation and Collection Work**

At the end of each semester, each student is required to submit digital documentation of work from the semester, including, but not limited to: photos of all models and 3-D work and high resolution scans or digital copies of all process sketches and finished drawings. Documentation should cover the project’s evolution as well as its final representation. Grades will not be issued until the work is submitted. In addition, selected projects will be collected and retained by the Program and may be used for accreditation purposes, marketing, program publications, websites, etc.

**Diversity**

The Program supports active and open dialogue in the studio, an environment in which diverse life experiences and opinions are shared. A culture of mutual respect and open inquiry supports a life-long learning process that begins in architecture school. Everyone is unique – respect different goals, opinions, stylistic preferences, process, and strategies. Show courteous behavior and respect gender, ethnicity, sexual orientation, and religious affiliations of peers.

**Plan for Implementation and Maintenance**

This Studio Culture Policy is a working document for the BFA Architecture, Master of Architecture, MS Design and off-campus programs (e.g., Hancock Shaker Village, Yestermorrow)

The Program will sustain and nurture a studio culture vital to the student experience continuing to embrace new technologies and new spatial configurations. The policy must continually reflect changes while maintaining the integrity and professionalism that characterize the study and practice of architecture. The Studio Culture Policy will be reviewed and revised on an annual basis, to maintain and further develop working principles for achieving the balance and integration of diverse goals and perspectives of the University, the Department, and the Architecture Program.
It is our plan to establish a working mechanism for review and further development of the policy through creating a Studio Culture task force composed of faculty, AIAS student leaders, and advisory council members. The task force will work to maintain and develop the Studio Culture Policy through review sessions each year, from which emerge annual recommendations forwarded to the faculty for review and implementation.

Appendix A: Building Use Policies

1. The Architecture+Design studio spaces are generally open every day, 6am to 2am, for Architecture+Design students engaged in regular university work. This privilege may be revoked at any time. All use of the design studios is subject to the Studio Culture Policy.

2. The use of plaster, aerosol spray paints, hand-held torches, toxic resins, is prohibited—except in the spaces specially provided for these purposes in the Studio Arts Building. The spray booths in Studio Arts Building must be used for any project using spray paints and must be used according to posted instructions.

3. Exercise caution when cutting materials with sharp blades. Recycling and the proper disposal of hazardous waste is mandatory.

4. Proper use of studio space is expected. Students are responsible for all costs incurred for painting and/or repair. Misuse of space will result in loss of studio privileges.

5. It is the student’s responsibility to see that all materials are removed from classrooms (including review rooms) at the end of each class period, and that no materials are left in public corridors, lobbies, stairs, or other paths of egress.

6. Most Architecture+Design students enrolled in design studio are provided with studio space. At the end of the term all personal and course materials must be removed from the buildings by the posted deadlines or they will be discarded.

7. Mail for graduate students received by the Program office will be placed in graduate student mailboxes in the Fine Arts Center.

8. Studio workspaces are for groups of people, and it is expected that individuals will respect the need of the group for a good working environment.

9. Smoking and the use of intoxicating liquors in the buildings is prohibited at all times.

10. Students may not use hot plates or other electrical devices in the studios except with special permission.

11. Students may not display in studios pictures, calendars, cartoons, or other material with sexual content that is or may be a form of sexual harassment as defined by UMass Amherst.

12. No pets, with the exception of guide or assistance animals.

13. Radios and personal stereos may not be played during scheduled class time. Use cell phones in the hallway.

In addition to the above, the following rules apply to all University facilities, including assigned studios:

- Smoking is prohibited in all buildings and entryways and within twenty feet of entryways.
- The consumption of alcoholic beverages is prohibited, except when permits are issued in accordance with University policy. Do not bring alcoholic beverages into the Studio Arts Building.
- The use of illegal drugs is prohibited.
- Pets are not allowed inside University buildings.
- Doors to the outside or roof of University buildings may not be propped open.

Appendix B: Academic Honesty and Accommodation

Academic Honesty Policy: Since the integrity of the academic enterprise of any institution of higher education requires honesty in scholarship and research, academic honesty is required of all students at the University of Massachusetts Amherst. Academic dishonesty is prohibited in all programs of the University. Academic dishonesty includes but is not limited to: cheating, fabrication, plagiarism, and facilitating dishonesty. [http://www.umass.edu/dean_students/codeofconduct/acadhonesty/#policy](http://www.umass.edu/dean_students/codeofconduct/acadhonesty/#policy)

Accommodation Policy: The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS) or the Center for Counseling and Psychological Health (CCPH) you may be eligible for reasonable academic accommodations to help you succeed in this course. If you have a documented disability that required an accommodation, please notify instructor within the first two weeks of the semester so that we may make appropriate arrangements. Accommodations will not be made after the fact.

Appendix C: Grading Guidelines

Your grades will be determined using the criteria described below. Projects will be evaluated according to the concept, development, craft, and degree of difficulty and completeness. Your evaluation will take into account both the tangible things which are evident in the work, but also those things which are not so evident and are often ephemeral such as, passion, dedication, determination and persistence. The following standards will be used in assigning grades:

A

Truly extraordinary work, which has gone far beyond the description of the stated problem. Work that makes evident a significant understanding of the problem, shows exceptional competence in the required skills, extraordinary craft and exhibits an advanced conceptual clarity and depth. The student exhibits an attitude of exploration, of open-mindedness, and a willingness to benefit from criticism.

A- or B+

Exemplary work, which is attended with initiative beyond the description of the stated problem. The problem is well understood and the work shows competence, excellent craft and conceptual clarity and depth. The student exhibits an attitude of exploration, of open-mindedness, and benefits from criticism.

B

Good work that shows an understanding of the problem, displays a conceptual foundation and is well crafted. Shows overall competency, as well as, mastery in some areas. Is attended with an open and inquisitive attitude.

B- or C+
Acceptable work but with some deficiencies. Shows an understanding of the problem, but there is a need for some improvement to be at the appropriate level for the class / assignment.

C

Work which meets the minimum requirements of the problem and course. The problem is only partially understood and there is a clear need for improvement to be at the appropriate level for the class / assignment. Students should make every effort to meet with their instructor to identify their strengths and weaknesses.

C- or D+

Work which does not show an understanding of the problem, and demonstrates deficiencies in the mastery of skills, self-motivation and respect for criticism. Students should meet with the professor and discuss their course of study.

D

Unacceptable work which does not meet the requirements of the problem or course, shows a serious deficiency in the mastery of skills, and suggests that this course of study may be inappropriate for the student.

F

A grade of “F” is obvious

LATE / INCOMPLETE WORK

Students may be given an extension in the event of medical or emergency circumstances only. Late work will only be accepted at the discretion of the instructor. Incompletes will only be considered if a request is made in writing, the extenuating circumstances are explained and are consistent with University policies.
UNDERGRADUATE STRATEGIC PLAN

Destination of Choice - Department of Architecture

CONTRIBUTORS

Full-time faculty: Ajla Aksamija, Caryn Brause, Carey Clouse, Naomi Darling, Joseph Krupczynski, Sandy Litchfield, Kathleen Lugosch, Ray Kinoshita Mann, Max Page, Sigrid Miller Pollin, Stephen Schreiber

Graduate students: Anonymous participants in 2014-15 focus groups

Staff: Jean Crossman, Nicole Shea

The Department of Architecture provides an accessible, intellectually rigorous design education that firmly grounds students in the art and science of the built environment. The interdisciplinary, collaborative program embraces spirited, socially progressive, and environmentally responsive design. As New England’s first public architecture program, the faculty and students engage the region in integrated teaching, research, and outreach. This fits well with the mission of this land grant institution, “...to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world.”

Architecture addresses the impact of the built environment on individuals and the natural world. The Department teaches the creative process that will enable students to tackle complex interdisciplinary problems of varying scales. Students learn to create a wide range of interventions informed by human and environmental systems. The design process helps people understand and find solutions to complex problems by clarifying the issues, envisioning approaches, conducting research, and enlisting the right stakeholders. Designers are able to creatively connect the three pillars of sustainability—ecology, economy, equity—with aesthetics. Indeed, sensitively designed buildings and communities are the physical manifestations of resiliency.

In this phase of the strategic plan, the Department of Architecture has learned that it attracts large numbers of highly motivated applicants. Because of resource restraints, the department is very selective in admitting undergraduates. Matriculated students rank architecture coursework very highly—nearly the highest in the university. The Department is home to one of the largest percentages of international and out-of-state students, even as it educates a large number of Massachusetts citizens.

But, the Department is most concerned about seniors who exit with some level of dissatisfaction, much of which has to do with their expectations about employment, but also about methods of preparing them for careers and graduate school.

The faculty is developing and implementing a clear series of actions which will address some of the issues. Some of these require funding — for example, for an undergraduate adviser position, and funds to support international study experiences for architecture students.

1. Program Attractiveness and Competitiveness.

Approximately 400 prospective Architecture majors apply to UMass every year, making the major the second most popular in HFA (after English). The acceptance rate averages less than 23%, the second lowest in the entire university (after Nursing). Incoming architecture students also consider themselves highly prepared—their self-reported “drive to achieve” of is the highest at UMass.

The strengths of are evident in the high quality of student work, and in a curriculum designed to strike a good balanced between the art and science of architecture. Architecture faculty continues to gain stature through strong hiring, and recognized excellence in professional work, research, teaching and
service. The availability of minors in Art History and Building and Construction Technologies, good study abroad support, and the Yestermorrow design/build program affiliation are also seen as a plus. The program attracts a small percentage of honors college students, and is able to support their enhanced curriculum.

The opportunity to study architecture at a publicly-funded institution clearly draws individuals from a broad range of backgrounds and socio-economic situations from throughout New England and beyond. Locally, the department’s articulation program with Springfield Technical Community College (STCC) has successfully enabled students to achieve a UMass degree, and the outreach work within the architecture curriculum, as well as through the Center for Design Engagement has been a strong mechanism for reaching a broader range of potential students.

The department’s ability to further attract quality students will be greatly enhanced by the new Integrated Design Building. While the Fine Arts Center is an impressive work of architecture with spacious studios, the department lacks many of the basic facilities of other programs—there is no legitimate lobby or gathering space, display areas for work, workshops, presentation rooms or lecture space. Interdisciplinary teaching and research are strengths, but it also means that affiliated faculty are scattered across the campus reducing Architecture’s presence to those outside the university. Furthermore, a building that is an exemplar of sustainable design will substantively enhance the department’s standing to the broader public.

Action items:
- strengthen career advising
- take even greater measures than urban schools to ensure that students have contacts within greater metropolitan areas where more architectural jobs are concentrated.
- build identity on the advantages of a publicly-funded research campus in such areas as agriculture and environmental science—subjects that are increasingly of interest to professionals of the built environment.

2. Overall Program Effectiveness.

The core of architecture education is the unique studio-based undergraduate instruction that is highly individualized while creating opportunities for community building. Students typically meet twice weekly with their studio instructor, creating an interactive, individualized, supportive relationship with faculty. All students who major in architecture have their own desks located within their studio cohorts. Students use these stations to work on individual projects as well as to work together with their fellow students. Architecture students learn how to focus on individual work and also enlarge their individual efforts through work with a larger peer cohort, a critical skill in a profession that requires individual creativity plus multi-discipline collaboration.

Students are also required to take classes throughout the university from faculty in different departments and different schools. This unique curricular design is founded on a reflection of architecture as an integrated profession. Architecture students have the opportunity to learn the distinct ‘languages’ and attitudes they will need to integrate as professionals in this multi-disciplinary field.

The American Institute of Architecture Students (AIAS) is the only student organization within the architecture community on campus, and stands as the sole group who represents the voice of architecture students, for both undergraduate and graduate levels. This is a major asset to the program, as the collaborative relationship between the faculty and student leaders within the college enables both groups to succeed. The AIAS organizes substantial student programming that assists the architecture faculty in providing professional, academic, and internal development. AIAS collaborates with other student organizations on campus to link the numerous departments and also collaborates with other AIAS organizations nationally.
AIAS at UMass has been highly effective. In the past few years they have organized field trips, firm crawls, portfolio review nights, mentoring sessions, and many other activities. While the program has a strong studio culture exhibiting the values of respect, empathy, sharing, engagement, and innovation

Although the Department of Architecture provides an excellent, well received education to a highly motivated student body, there is a distinct need for a professional advisor to help the transition from college experience into the field and/or graduate school. A well-developed academic and career advising will increase student satisfaction upon graduation, and will provide a forum for architecture alumni/ae to continue their contact with the program as they move forward professionally.

Action items:
- work with students to determine areas for improvement to advising
- improve paperwork (i.e.: streamlining physical and digital copies) relating to advising and course planning

3. Student Engagement.

The Department of Architecture has a low faculty-to-student ratio, ensuring that each undergraduate student benefits from individualized attention and direction. In the program's core studio courses, students regularly meet one-on-one with their professors throughout the semester to develop their own personalized projects. Students report that architecture faculty regularly show a personal interest in helping students learn, (more than one standard deviation above other departments) which may reflect the time and attention they receive along their path to graduation.

Small class size is both the foundation of studio culture and a key factor in the department's ability to teach design excellence. It is this studio environment, perhaps more than any other factor that facilitates active and engaged learning among the student body. While architecture history and theory classes can be taught to larger groups of students, the department has found that the design studios and seminars work well with very small groups. This program hallmark is reinforced by the data, where the architecture department regularly stands out as one of the programs with the highest rankings.

Similarly, advising has been structured to provide a personalized approach. Annually, each new cohort of students is paired with a faculty advisor who will work with them throughout the four-year program. Students are encouraged to seek out that dedicated faculty member for guidance related to course selection and timing, graduation requirements, and even post-graduation planning. Students are also encouraged to voice their concerns or suggestions in these meetings. While this process has effectively been employed in the past, outgoing student responses suggest that this advising process could be improved.

Action items:
- open new courses, perhaps gen-eds, to students outside of the major
- increase the capacity of the department to provide more space for the increasingly competitive and desirable major
- facilitate an on-campus path to an architecture minor.

4. Teaching Contributions and Effectiveness

The Department of Architecture at UMass Amherst has been able to create a healthy learning environment for their students. Students appreciate the intimate nature of the department, and continue to articulate their interest in being a part of its growth and development. Workloads are expressed as being reasonable, and students are pleased with the culture of the studios. The curriculum differs from the majority of other departments on campus, since architectural design studios lie at the core of architectural education. Studio courses constitute the most
credit hours, and demand the largest workloads and most intensive time commitment from students and faculty. Studio courses are also intended as the point of integration for other coursework and educational experiences, teaching critical thinking, analysis, design skills, and building technologies.

According to Student Responses to Instruction (SRTI) data evaluating the teaching effectiveness, Department of Architecture’s performance is comparable to departmental mean and has been improving within the last several years. In terms of the overall course ratings, Department of Architecture’s performance is higher than the departmental mean. The data also suggest that students are learning more in architectural courses compared to most other courses.

Almost all classes that are taught within the Department of Architecture are major-specific. Therefore, our classes currently fulfill a few general education requirements (Junior year writing and Integrative experience). The City (lecture) and Introduction to Design/Graphics (studio) are coming on line in Spring 2015 as general education courses.

Action items:
- identify clear learning objectives and goals for each design studio course, and strengthening coordination between different levels (Design Studio I to VI)
- strengthen integration of design studios and other classes that focus on building technologies, digital technologies and design software, architectural theory, and construction

5. Student Outcomes.

Students rated their overall assessment of learning across the Department of Architecture’s courses to be very high with an SRTI of 4.26. Architecture consistently rates very highly with scores 1 SD above departmental mean for four of the last five years.

The department teaches concept-based design. Students approach their work with the understanding of concept as the generating force behind design from the early stages of development through the later more detailed tectonic stages. The conceptual strength is ultimately the strongest basis for addressing the full range of theoretical and practical concerns. The faculty strives to create a positive learning environment in which all students can discover and develop their own process and design methodologies.

The relationship between theory and practice in the architectural academy is a persistently debated topic. Architecture programs strive to maintain a delicate balance between liberal arts, research, and pre-professional preparation. In the undergraduate program, this issue may be particularly confusing to students as they are enrolled in a liberal arts degree, not an accredited program. To become licensed professionals, they must complete a graduate degree. Thus, our curriculum forms an introduction to both design thinking as a way of solving complex interconnected problems, as well as design practice as a profession.

Architecture students may be drawn to courses that specifically do not feature writing and, despite advising to the contrary on the part of faculty, may avoid taking courses with a focus on writing. Although writing is a core skill of design practice, communicating graphically is essential, and is notably missing from the list of skills in which all University students should develop.

The Department’s core studio courses embrace extensive oral presentations at every stage of project development featuring public feedback and review by peers and outside critics. All students make multiple oral presentations per semester in which they receive feedback not only on their design work, but also on the way they have verbally and visually presented their work.
The Department's core studio courses feature hands-on projects that address complex disciplinary questions and real-world problems. As designers, students are asked to critique and analyze not only the given project, but also to enlarge and reframe the project parameters or problem-space. Additionally, nearly every project asks students to breakdown pre-conceived ideas, to analyze existing precedents, to investigate a variety of design methodologies, and to link abstract and critical thinking skills to concrete realizations.

Architectural internship experiences for undergraduates are limited, as they are usually reserved for students earning a professional degree. UMass Amherst is located in a rural area with few positions in architecture firms, making it additionally difficult for undergraduates to gain professional experience. Undergraduates who are successful securing internships in architecture firms typically achieve this in their home community where they may have community connections. Students may, but do not often, look for alternative experiences such as working with Habitat for Humanity, with construction or design/build firms, with product manufacturers, or in relevant government, private, and nonprofit planning organizations.

The Department of Architecture is predicated upon active and applied learning. For designers, information can be successfully digested when it arises out of observation, exploration, and personal experience. Thus, in our curriculum, all courses are experiential, hands-on, and integrative. During their sophomore, junior, and senior years, all students are enrolled in a core design studio course which integrates other coursework through a hands-on, often real-world, project. The projects increase in complexity over the three-year sequence and feature extensive peer collaboration, feedback and review. Faculty frequently assign projects that they investigating in their own creative research such as low-income housing, energy retrofits and adaptive reuse, or community resilience. Or they may participate in design competitions that engage our students in a national conversation such as the annual ACSA/AISC Steel Design Student Competition which over the last few years have featured project types that include Border-Crossing Stations, Skyscrapers, and Culinary Schools or the recent TIMBER IN THE CITY: Urban Habitats Competition.

Architecture graduates pursue multiple career paths that fully encompass the breadth of the profession as it spans both the arts and sciences. Some of graduates continue their education and pursue professional graduate degrees at both public and private institutions. Recent graduates have attended Yale, University of Pennsylvania, Tulane, University of Virginia, University of Michigan, Northeastern, and UMass. These graduates typically plan to pursue professional licensure. Other graduates have continued into PhD programs in building science.

In addition to traditional practice in private architectural firms, some architecture graduates are employed in community design and urban planning firms, building and construction firms, and building products manufacturers. Other career paths lead our graduates into related disciplines as well, such as interior design, industrial design, graphic design, or real estate.

Action items:
- intertwine teaching about architectural profession and practice with current courses in order to improve students' knowledge and expectations (such as project management, design delivery methods, professional conduct, marketing and economics in architectural practice, etc.)
- improve integrative experience for juniors and seniors
- developing new courses that focus on contemporary architectural practice, building technologies and design delivery methods

6. Effective Use of Resources.

The Department of Architecture is, by its very definition, interdisciplinary. Architecture students, and faculty participate in a full spectrum of connections across disciplines: courses, programs, events,
activities, research grants, among others were regularly cited as examples of interdisciplinary collaboration. Faculty from four UMass colleges work together actively to formulate courses and course work that extend students’ abilities to approach all aspects of design in an innovative but rigorous manner.

The department is an integral part of the Five Colleges Architectural Studies program that capitalizes on each college’s unique approach to liberal and professional education. The four colleges have created architectural studies majors within the context of liberal arts education. The program in studio architecture at Smith College is the longest-running pre-professional architecture program in architecture for women in the country. These connections enable to department to effectively share faculty, guest lecturers, exhibitions, symposia, and other resources.

Teaching loads are typically two courses per tenure-track faculty member per semester, which is a standard at peer departments. Studios are valued at 4-6 credit hours each, so some design faculty teaches up to 10 credits/semester.

The department expects that new synergies will develop with landscape architecture, planning, and construction when we cohabitate the new Integrated Design Building.

The new department has struggled to determine the right size of its undergraduate program. The number of majors peaked in 2011 at about 120 majors, that number overwhelmed courses in the Art, Art History, and Building Construction programs (all required of architecture students). The department has since scaled back to a more reasonable 100 students. However we are committed to exposing more students to the architecture major by opening new general education courses and new pathways to the major that are not studio intensive.

Action items:
- fine tune right size of architecture majors
- create new certificates, minors, majors with other occupants of Integrated Design Building

7. Diversity, inclusion and access.

The Department of Architecture is committed to the goals of affirmative action and strives to enhance diversity in its student population. Students are recruited through active counseling with prospective applicants and parents and participation in career day programs. Every effort is made to point out the specific opportunities for success, availability of financial aid, and scholarship funding. The program has been somewhat successful in making connections with high schools and community colleges to attract diverse applicants and transfer students. Our transfer agreement with Springfield Technical Community College (STCC) has been particularly successful in this regard.

Faculty members have worked in Holyoke and Springfield to make community links and to encourage students from underrepresented constituencies to attend UMass Amherst and provide ways for curriculum to reflect on the varied experiences of underrepresented students. The department has also run an after-school design exploration program, for high school students in inner-city Springfield, in past years. There has been a noticeable increase in the numbers of students of color in our undergraduate program, in part because of these efforts. In Fall 2014, 60% of entering first-year Architecture students were female and 24% were ALANA, both higher than UMass averages. More than 55% of entering first-years are from out-of-state, one of the highest percentages at UMass. Retention and graduation rates are the same for underrepresented groups, as they are for the student body as a whole.

The Department has strong connections to two women’s colleges, Smith and Mount Holyoke. Faculty member have co-organized a lecture series on women and the design/construction professions to expose students to the diversity of the built environment professions.
Action item:
- improve ethnic diversity of undergraduate programs

8. Internationalization.

The Department of Architecture has undertaken a number of efforts to provide greater international experiences for architecture students. The department has developed two formal exchange programs -- with the Technical University of Berlin and Universidad Torcuato di Tella in Buenos Aires. Architecture students have also taken advantage of other study abroad programs with over a third of current seniors having spent one semester abroad during their junior year.

Students indicated the extent to which they participated in a study abroad program while at UMass at 24%, which is above average. These numbers are extremely variable, dependent on the cohort and their financial situation. Typically architecture students participate in study abroad programs in large numbers. For example, in 2011 and 2012, 46% and 44% of students participated.

The Department has an outstanding record of attracting international students to its graduate programs, but has far fewer at the undergraduate level. However, 10% of Architecture majors are international students, the highest at UMass.

The Department recently offered two short-term international study trips, one to Buenos Aires and one to Havana. Further study trips are in the planning stages -- to Switzerland, South Africa, Berlin, and Japan. Finally, the faculty has begun to develop studios that involve foreign sites, with an eye to having site visits as part of the course work. In the Fall of 2014, for example, two professors have focused their studio on Hokkaido, Japan.

The fundamental issue, however, is cost. The Department has chosen to allocate some of its CPE revenues toward supporting student scholarships for study abroad trips, but it is not nearly enough to make it affordable for many of our students.

Action item:
- build up an endowment that would provide substantial support for international experiences for our students.

9. Outreach and Community Engagement

The Department of Architecture distinguishes itself by emphasizing its public mission — of serving the Commonwealth through projects that support community design projects, and training students to be engaged with issues of local design, planning, and environmentally and economically sustainable communities. Architecture students are exposed, in virtually every class, to ideas and projects that benefit local and regional communities.

The educational opportunities at the Department of Architecture pay particular attention to the needs of the regional and global society. Opportunities to study specific community-based ecological, political and urban issues are provided in the core architecture curriculum.

Students indicated the extent to which they participated in community service or volunteer work while at UMass at 62%, which is above average. The Department demonstrates its commitment to community engaged learning through a community-engaged design studio course (ARCH 404) that is offered each year and open to all seniors for enrollment. The studio is a designated Community Service Learning (CSL) course and each year engages with a variety of community-
based groups and organizations—particularly from underrepresented communities in the region. In addition, students engage in internships and practica that are located within a wide range of professional and community contexts, and the professional practice course dedicates time to explore the architect’s social responsibilities.

Studio projects have a wide range of users and social contexts, and being responsive to the diverse communities that students will engage with once they graduate is an important part of the department’s learning goals. Students are expected to develop an understanding of their obligations to the client, user and society and a measure of the success of their work is judged accordingly. These exercises give them many opportunities to examine their own perspectives and potential for prejudice in light of their peers, their social environment of both the university and the studio, and the appropriate nature of unprejudiced and unbiased professional judgment. Professional and public service is discussed in professional practice case studies involving pro bono work exemplifies the point.

Faculty provide an important role in sustaining relationships with community partnerships and support student learning. Besides providing continuity within the studios for integrative work with community partners, architecture faculty also provide opportunities for students to participate in research and creative activities that involve community engagement and service.

Action item:
- clarify the community service opportunities that already exist within the program and the development of a curricular pathway for students to earn a certificate in Civic Engagement and Public Service (offered by the UMass Office of Civic Engagement and Service Learning) through new and enhanced course offerings.
DEPARTMENT of ARCHITECTURE
STRATEGIC PLAN FOR GRADUATE PROGRAMS

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INTRODUCTION

The new Department of Architecture provides an accessible, intellectually-rigorous design education that firmly grounds students in the art and science of the built environment. The interdisciplinary, collaborative program embraces spirited, socially progressive, and environmentally responsive design. As New England’s first public architecture program, the faculty and students engage the region in integrated and interdisciplinary teaching, research, and outreach. This fits well with the mission of this land grant institution, “...to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world.”

Classes in the Department of Architecture address the impact of the built environment on people and the natural world. The department teaches students how to engage the creative process to tackle complex interdisciplinary problems of varying scales. The design process helps people understand and find solutions to complex problems by clarifying issues, envisioning approaches, conducting research, and enlisting appropriate stakeholders. Through this method, design students creatively connect the three pillars of sustainability—ecology, economy, equity—with physical experience. Indeed, sensitively designed buildings and communities are the physical manifestations of resiliency.

The UMass Amherst Department of Architecture is deepening and extending its research on sustainable community development by enhancing new approaches for environmentally sound buildings and landscapes, and, with equal passion, exploring new ways to foster just communities. The department believes—and demonstrates, through research, creative activities, and teaching—that these aspects of the sustainable movement must be integrated, through an interdisciplinary curriculum that has at its base the cultivation of "design thinking."

AREAS OF EXCELLENCE: BACKGROUND AND OPPORTUNITIES

In the coming five years, the Department will strengthen its teaching, research and creative work in five areas of excellence—professional leadership, integrative design, environmentally conscious design, historic preservation, and community engagement.

Professional leadership

The Master of Architecture at the University of Massachusetts Amherst is the first accredited architecture degree at a public institution in New England. In the United States, most state registration boards require a degree from an accredited professional degree program as a
prerequisite for professional licensure. The Master of Architecture is considered a terminal degree for both practice and teaching, although the Doctor of Architecture is offered at one institution. (There are also PhD programs in architecture, which typically focus on specialized areas, such as technology and theory.) Graduates from the architecture program pursue multiple career paths that fully encompass the breadth of the profession, as it spans both the arts and sciences. The majority of architecture graduate students matriculate to pursue professional licensure. Many have remained in New England and are reshaping practice in the region. Others are practicing throughout the United States and internationally. Alumni are active members of professional organizations, taking leadership roles in emerging professionals’ networks, volunteering on American Institute of Architecture (AIA) boards, and serving on the Intern Think Tank for the National Council of Architecture Registration Board (NCARB).

However, the design thinking pedagogy deployed in the department is not limited to preparing licensed professionals. Some graduates have continued their education in PhD programs, particularly in building science. In addition to traditional practice in private architectural firms, architecture graduates are employed in community design and urban planning firms, building and construction firms, and by building products manufacturers. Others are achieving national prominence in non-profits devoted to sustainable practices and social justice. Other career paths lead architecture graduates into related disciplines as well, such as interior design, industrial design, graphic design, and real estate development.

Faculty members are engaged in research and innovative practice, and have received national recognition for the integration of practice concerns into the academy. This work is widely disseminated and serves as a recruitment tool for the graduate program. UMass’ externship program is also regarded as a significant advantage for enabling students to gain valuable professional experience while pursuing their graduate degree, making them significantly more competitive in the job market upon graduation. Thus, to remain relevant and competitive, it is imperative that the department continue to offer this outstanding opportunity.

In order to meet these goals and objectives of the areas of excellence, it is necessary to invest and improve department’s infrastructure by:

- Hiring faculty members who focus on innovative design practice as their primary creative work activity.
- Securing staff (.25 FTE) to assist faculty members, and coordinate with HFA and OGCA during the preparation of funding proposals and to manage the financial implementation of funding awards.
- Hiring staff to coordinate internship and other professional opportunities for students.
- Securing increased funding for the UMass externship program.

**Integrative Design**

As UMass breaks ground for the new *Integrative Design Building*, housing Architecture, Building Construction Technology and LARP, the architecture department seeks to advance its mission of interdisciplinary collaboration and public outreach, by forging new links with other university departments and beyond. Integrative design is an evolving multidisciplinary field that combines collaborative design practices with innovation and research. The architecture department prides itself on a long history of excellence in design thinking and creativity. These form the foundation of integrative design and are arguably among the most
potent aspects of the discipline in relation to other fields. Design thinking constitutes a structured approach to generating and developing ideas in order to resolve “wicked problems”––complex problems in which both the concern and the solution are unknown at the outset. In architectural design studios, the problem solving process consists of such problem definition and problem shaping. The department integrates design thinking throughout the curriculum. Whether approaching technical or theoretical topics, architecture students use design thinking to solve problems, collaborate with others, communicate with diverse groups of stakeholders, envision solutions, and express ideas in compelling ways.

The curricular platform in architecture is used to support a range of interdisciplinary options with an emphasis on invention, entrepreneurship, creative industry, critical analysis and entrepreneurship. At the same time, it both allows students and researchers to integrate knowledge from fields outside design in order to find new applications for their skills and benefits other departments by introducing them to creative practice. As climate change research begins to shape public policy and planning, we forecast a need for architects—skilled design thinkers-- to interface more directly with the fields of climate science, geography, environmental and material science, biotechnology and others. The department sees growth opportunities in research that links designers to other disciplines, to pursue grants, share expertise and work on mutually beneficial collaborative projects.

Many of the university’s teaching initiatives feature active and project based learning, which is the department’s area of expertise. The department excels in experiential education and our objective is to foster partnerships with departments with whom to share this expertise. In order to move forward with this goal, the department needs investments in new TA lines. This would allow faculty to pursue new classes that involve inter-departmental outreach, effectively raising the visibility of their pedagogical research.

In addition, faculty and student expertise in digital modeling and fabrication is increasingly valuable to the university for research and teaching purposes. These tools can be used for visualization, forecasting and testing in multiple fields. With a state-of-the-art lab opening up in the new the Integrative Design Building, the department needs dedicated staff to manage and run these resources. This will enable the department to maximize this expanded capability.

To continue to pursue excellence in teaching and research in this area, the department has identified the following priorities:

- Determining faculty members from the Department of Architecture and other departments that would actively engage in integrative and resilient design.
- Securing staff (.25 FTE) to assist faculty members, and coordinate with HFA and OGCA during the preparation of funding proposals and to manage the financial implementation of funding awards.
- Securing staff to help with technical support in various labs (including woodshops, computer labs, green building labs).
- Securing graduate assistantship lines.

Environmentally Conscious Design

Among the strengths of the Department of Architecture is its focus on environmentally conscious design. Many of faculty members conduct research and creative work in this area, and also integrate sustainable design topics in the courses that they teach. Graduate design
studios typically require students to integrate sustainable design strategies in their projects, and
several required and elective courses focus on environmentally conscious design. Many
architecture graduate students develop thesis projects with a focus on sustainable design, and
architecture faculty members are actively engaged in advising and guiding students’ research
and projects. One faculty member also advises PhD students enrolled in the Environmental
Conservation program, with a focus on Building Systems.

There are currently a number of opportunities in this area of architectural research. Pursuit of
these funding opportunities by architecture faculty, as well as collaborative efforts with other
UMass departments and programs (such as Building Construction and Technology program,
and the Department of Landscape Architecture and Regional Planning) are two central goals for
the department. A more aspirational goal is the formation of the Center for High-Performance
Building Design, which would be supported by private industry and federal agencies.

The steps for forming the Center for High-Performance Building Design include:

- Determining faculty members from the Department of Architecture and other
departments that would actively engage in center’s activities, as well as structure and
organization (leadership, administration and current students).
- Developing marketing material for the center (website and brochures).
- Identifying funding opportunities (private industry and federal agencies).
- Securing shared staff support (0.25 FTE).
- Securing physical space and offices, consisting of a research/computer lab and a
conference room (1000 SF).
- Securing financial support for graduate research assistants for a startup period.

Historic Preservation

In 2009, the Department of Architecture launched a unique historic preservation program, which
combined the attributes of a National Historic Landmark, Hancock Shaker Village, with UMass
Amherst, a major public research university. Four classes of graduate students have earned
Master of Science in Design in Historic Preservation degrees by taking courses at UMass
Amherst and at Hancock Shaker Village, using that historic site as a laboratory for
understanding the practical and philosophical dilemmas of historic preservation. The degree
program has distinguished itself through its commitment to preservation as a project of public
engagement, its focus on the centrality of preservation to sustainable development, its
insistence on challenging preservation theory and practice even as it trains students for
successful careers, and its schedule that makes it accessible to practicing professionals.

The Department of Architecture has several goals for the coming years to strengthen research
and teaching in the field of historic preservation. The department hopes to expand and
transform the historic preservation program by emphasizing the department’s strengths in urban
preservation and community engagement in neighboring communities of Holyoke and
Springfield. The faculty will develop dual degree programs, providing an opportunity for students
to earn a Master of Architecture and Master of Historic Preservation in four years, and for
students in Public History and in Landscape Architecture and Regional Planning to combine
their degrees with a Master of Historic Preservation. And, the department will become a
nationally recognized locus for debate around the future of historic preservation.
The department will be revising the curriculum to emphasize the issues facing urban communities around the country, with neighboring cities of Holyoke and Springfield as the focus. The program will maintain the link to Hancock Shaker Village, but will steer several courses to the UMass Center in Springfield, and emphasize student projects in Holyoke and Springfield. The department has begun making formal collaborative agreements with organizations in both cities, including another National Historic Landmark, the Springfield Armory.

The department plans to revise the curriculum so that Master of Architecture students with an interest in preservation architecture can gain two master’s degrees expeditiously. Because of the program’s roots in Continuing and Professional Education, it has been difficult for Master of Architecture students to take courses or do a dual degree without incurring, in essence, twice the cost of their normal UMass tuition. The department hopes to bring the preservation program back into the regular course offerings of the department, and thereby expand the number of students in the program.

Through yearly symposia on the connection between preservation and sustainability, and through a current, year-long collaboration between UMass, UPenn, and the National Trust for Historic Preservation, the department is playing a central role in the rethinking of national preservation policy in anticipation of the 50th anniversary of the National Historic Preservation Act of 1966. The department hopes to strengthen the department’s reputation as a place for debates on the future of preservation through lectures and symposium, as well as through an annual summer retreat for preservation experts.

There are no public university preservation programs in Massachusetts. Our nearby competitors include Boston University (a program based not in an architecture program, but New England Studies), Boston Architectural College, Roger Williams, and the University of Vermont, which has the only other public university program in New England. The unique focus – on theory as well as practical skills, community engagement, sustainability, and links with national historic sites – and the wealth of faculty – in Public History, Building Construction Technology, Landscape Architecture and Regional Planning, and faculty across the Five Colleges – makes the UMass program stand out. Having more courses in Amherst and in Springfield will make the program more accessible to Boston-area professionals.

The steps for creating a more sustainable historic preservation program include:
- New faculty members who can help expand the historic preservation program (which is currently underwritten almost entirely with CPE funds).
- Marketing material for the center (website and brochures)
- Identifying funding opportunities for research in historic preservation (private industry and federal agencies)
- Securing shared staff support (0.25 FTE).

**Community Engagement**

The graduate architecture program supports the land-grant mission by integrating community engagement and public scholarship into research, creative practices and learning. While this approach demonstrates the important benefits of reciprocal university-community partnerships, it also increases students’ understanding of architecture as an integral part of both visual culture and social responsibility.
Since Ernest Boyer’s *Scholarship Reconsidered* (1990) and *Building Community: A New Future for Architecture Education and Practice* (1996), a stronger integration of architectural research and student learning into the life of communities outside the walls of academy has been a key component of architectural education. Many architecture faculty and graduate students are involved in the scholarship of engagement, service-learning pedagogy, and community-based creative practices that innovatively respond to complex built environment issues within a wide variety of communities. Through faculty research and community-based courses/studios, students learn to develop responsive solutions to the pressing needs of local communities and provide direct benefits. These opportunities offer graduate students occasions for self-reflective learning and thus enable them to think, judge, care and act responsibly in the ever-evolving local/global contexts that they may find after graduation.

While engagement activities are integrated into a variety of course and initiatives, the department has also established the Center for Design Engagement (CDE). CDE activities are spread between a 501-C3 nonprofit and research and teaching opportunities on campus. CDE identifies architectural, public art and design needs of local governments, human service agencies, and other community-based organizations throughout the region and link those initiatives with faculty’s creative practice and research. The faculty also looks for opportunities to engage students in these projects through studios and independent studies.

The department hopes to expand and coordinate its community-engaged research/creative practice through increased support for faculty and graduate students. Possibilities include training opportunities and fellowships; staff support for faculty to secure funding for engaged/public scholarship; and outreach efforts to align community identified needs with faculty research agendas.

The faculty plan to communicate multiple community-engaged initiatives and their impacts through increased support for faculty to document and disseminate their engaged research. This can occur through existing scholarly and community-based products, and possibly through the creations of new scholarly products/venues (department initiated journals/books, conferences and exhibitions).

The department will expand the current Master of Science in Design to include a track for “design engagement,” and explore the potential to develop a dual degree program for students to earn a Master of Architecture and Master of Science in Design Engagement.

The Department of Architecture plans to develop a distinct identity, role and space for the Center for Design Engagement, by bringing it into the department as a research center (it currently is an independent non-profit) and expanding its role to be more inclusive of a wide variety of faculty research efforts (climate science, sustainability, environmental preservation and social justice). The department will expand opportunities for local underserved communities with (such as the UMass/Springfield Initiative), and create opportunities for engaged scholarship/practices to support successful pathways for underrepresented minorities and first-generation students to access higher education—and especially to enter the architectural profession through the architecture department. (Consider an “architecture academy” to provide STE(A)M learning opportunities.) The department will also develop new programing focused on the built environment’s impact and influence on civic, social and cultural life in the region. This will occur through public lectures, community-based seminars and workshops, by emphasizing community knowledge creation, civic engagement, civic education and civic leadership.
In order to meet these goals and objectives of the areas of community engagement, the department proposes the following steps:

- Determine faculty members from the Department of Architecture and other departments that would actively engage in Center for Design Engagement's activities, as well as structure and organization (leadership, administration and current students)
- Develop marketing material for the center (website and brochures)
- Identify funding opportunities (private industry and federal agencies)
- Secure financial support for graduate research assistants for a 3-year start-up period
- Secure shared staff support (0.25 FTE).

GRADUATE EDUCATION

The Department of Architecture is committed to the continued development of the Master of Architecture as its core graduate academic program. The MArch is the terminal degree in architecture (as the MFA is in writing and the arts) and is the typical minimum requirement for academic positions in architecture. The MArch is also an accredited professional degree that enables graduates to become licensed architects.

The Department also plans to retool its Master of Science in Design program, which was founded as a terminal, professional degree in interior design. It also will pursue strategic dual graduate degrees; new concentrations in the MArch and MS Design that align with the areas of strength; and an interdisciplinary doctorate in collaboration with the other departments in the new Integrated Design Building.

The Department has the highest percentage of international students in the College of Humanities and Fine Arts (50%). A respectable 82% of the students finish the lengthy architecture graduate degrees in less than four years. UMass surveys indicate that graduating MArch and MS students are very satisfied with: “quality of your academic experience” (third highest at UMass), overall experience (highest at UMass), “overall quality of graduate level teaching” (third highest at UMass), “quality of academic advising” (third highest at UMass).

Specific goals for the future include:

Master of Architecture
- “Right size” the number of students
  In the fledgling history of the program, the size has ranged from about 8 students to 60 students (currently about 30 students). A program of 90 students (30 per cohort in the 3 year program) would enable the department to offer more academic choices (in studios, electives, study abroad programs) and to have more research capacity.
- Fine tune the number of credits required in the graduate program
  The MArch currently ranges from 57 credits to 87 credits, depending on undergraduate degree. The accrediting board permits MArch degrees to have as few as 48 credits, with the assumption that more professional course are taught in undergraduate preparatory programs
- Recruit students, particularly from liberal arts colleges, and improve the yield of accepted applicants
- Fine tune the ratio of international to domestic students
- Create more effective career preparation courses and advising for graduate students.
- Develop stronger alumni/ae network to help with career advising, development, and other opportunities
Master of Science in Design

- “Right size” the number of students
- Convert existing Historic Preservation concentration into its own terminal degree (Master of Historic Preservation), that is partly offered through CPE (summer, May) and partly through regular courses
- Develop research concentrations that align with the areas of strength: integrative design, environmentally conscious design, community engagement
- Consider reconstituting a Council for Interior Design Accreditation or NASAD accredited interior design program

Dual degrees

- Develop new dual degrees (in addition to the existing MArch/MLA and MArch/MRP): MArch/MS Design, MArch/MBA (focusing on design thinking and entrepreneurship), MArch/MS Civil Engineering, MArch/MFA(Art)

Interdisciplinary doctorate in the built environment

- Consider an interdisciplinary doctorate in the built environment, with the other occupants of the Integrated Design Building

FUNDING FOR GRADUATE STUDENTS

The Master of Architecture is the terminal degree in architecture (as the MFA is in the arts and creative writing). The best architecture graduate students expect some forms of assistantship, including a stipend and tuition/fee waiver.

According to the National Architecture Accrediting Board, 60 (of 63) public Master of Architecture programs offer graduate assistantships in the form of a stipend, tuition remission (either as cash or credits) or both. An average 35% of graduate students receive assistantships at NAAB schools; the highest is 86%. At UMass Amherst, four (4) students receive teaching assistantships—"Dean’s TAs"—any given year. Another one (1) student is on program-supported assistantship for digital media support.

That means that less than 10% of 60 UMass Master of Architecture students are guaranteed assistantships any given year. Indeed, the department loses some excellent applicants, often from prestigious liberal arts or pre-professional programs, to peer schools that can offer more generous aid. Many of architecture students (perhaps another 10-20%), however, use their exceptional academic and “design thinking skills” to get assistantships in other departments on campus (such as residential life) and externships in professional offices. While these positions are not guaranteed, they are essential for the continuation of a robust graduate architecture program. As the department has begun offering popular general education classes (per the department’s undergraduate strategic plan), it is critical that university-supported teaching assistantships also increase.
LINKS TO OTHER DOCUMENTS

- Self-Assessment Policies and Objectives  

- Policies on academic integrity for students (e.g., cheating and plagiarism)  
  http://www.umass.edu/dean_students/campus-policies

- Information resources policies including collection development  
  http://www.library.umass.edu/about-the-libraries/policies/collection-development-policy/

- The institution’s policies and procedures relative to EEO/AA for faculty, staff, and students.  
  http://www.umass.edu/eod/

- The institution’s policy regarding human resource development opportunities, such as sabbatical, research leave, and scholarly achievements.  
  http://www.umass.edu/ctfd/grants/index.shtml

- The policies, procedures, and criteria for faculty appointment, promotion, and when applicable, tenure.  