

Architecture Program Report 2014

Dalhousie University
School of Architecture



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Dalhousie University
School of Architecture
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1.0 Introduction to the Program

1.1 Program Identity and Mission

The Architecture program at Dalhousie University emphasizes the holistic nature of architecture as both a discipline and a profession. Architecture's relation to many other academic disciplines is reinforced by the diverse backgrounds of our students, who have studied other subjects at universities across Canada and beyond before entering the School of Architecture at a third-year undergraduate level. This promotes mature, well-rounded discussion of diverse topics throughout the four years of the BEDS/MArch program.

The BEDS program encourages students to develop an integrated understanding of architecture. The subjects they study each term - design, history and theory, building technology, representation, and professional practice - are often linked in their content and structure. This provides a solid, shared foundation for their more individual pursuits in the MArch program. The fact that all levels of students share the same studio environment encourages the undergraduate students to learn from the graduate students, and the graduate students to take on an informal teaching role.

Since 1970, the School's co-op program has enriched our students' academic understanding of the architectural discipline through practical work experience in architectural practices around the world. After completing twelve months of work terms and a series of professional practice courses that reflect on facets of the profession, the students are well prepared to choose their career path after graduation and to take advantage of changes in architectural practice that are likely to happen during their working life.

The BEDS/MArch program is based on certain pedagogical premises. Architectural design is approached consistently through the study of buildings, with issues of human habitation, social responsibility, and building construction being present from the beginning. Attention to the craft of manual drawing and modeling in Year 3 of the BEDS program expands gradually to include digital design. Craft also increases in scale as groups of students embark on full-scale design-build projects, most notably in our late summer Free Lab courses, in which students and faculty work collaboratively - often with communities - to conceive, develop, and build a small project for a site in the city, the province, or beyond.

Students in the BEDS/MArch program are encouraged to reflect consciously on their design process, which is expected to include research, analysis, creativity, and criticism. This focus on process helps students learn to operate deliberately in different circumstances. It culminates in the final year of the MArch program, in which students devise, develop, and complete an individual thesis.

The School benefits from its location in Halifax, on the Atlantic coast of Canada. This 265-year-old city has a diverse urban fabric and is situated near many provocative historical, geographical, and cultural sites that provide challenging settings for design projects. The School also maintains international exposure, through studios set in other countries; international work term placements; international exchanges; a steady stream of international critics, lecturers, and examiners; and Dalhousie Architectural Press.

The mission statement from 2002 is still an accurate summary of the School's priorities:

- to educate students in the discipline of architecture, understood as the craft of projecting and making built environments
- to prepare graduates to take on an engaged and committed stance to the advancement of the profession of architecture
- to work in the community, using Atlantic Canada as a laboratory for development of specific and authentic practices of architecture
- to extend the reach of architecture: as a cultural practice, and as a force in culture and society

The professional program is facing serious financial challenges, as the School's annual budget is being cut 3% per year for the next three to five years. Because faculty salaries are a constant, this will reduce the School's discretionary budget, which has been used mainly for adjuncts and visitors.

Local adjuncts (practicing architects and scholars who specialize in a particular subject area) help the program meet professional and accreditation requirements and add breadth to the curriculum. They also keep faculty teaching loads low enough to permit research.

Visiting reviewers and lecturers from across Canada, the United States, and Europe expose our students to different academic and professional situations and different ways of working. This compensates for the School's location in a relatively small city on the east coast. Bringing in visitors requires substantial expenses for air travel and accommodation. Diverse international visitors help the program remain attractive to students from across Canada who have studied diverse subjects before entering the professional program and who will embark on diverse careers around the world after graduation. This has been a longstanding tradition at TUNS and Dalhousie. We do not want to become a regional school for local students. Financial challenges eventually could reduce applications and selectivity, diminish the School's national standing, and affect our ability to achieve parts of the program's mission.

The program is also facing challenges due to insufficient lab space for students. There is no indoor work space for constructing large models or doing design-build work, which is often affiliated with local communities. With the program's emphasis on physical modeling, students rely heavily on the Faculty's small woodworking shop, which can accommodate only ten people at a time. Growing interest in digital fabrication is also creating a demand for a larger digital fabrication lab.

There is also insufficient space for faculty research, including collaboration with graduate students. As new faculty are appointed to replace those who resign or retire, most will need space to do research. Although the university is moving forward with plans for a new IDEA Building to augment existing facilities for Engineering, Architecture, and Planning, this depends on fundraising and is still years away.

1.2 Program Action Plan and Objectives

In 2013 the Faculty of Architecture and Planning established a new strategic plan in conjunction with the School of Architecture and the School of Planning (see 4.9). It defined the mission, vision, and values of the Faculty and devised an action plan for the Faculty as a whole. The School of Architecture already had begun to address several items in this strategic plan: first, by mapping the curriculum of the professional program and focusing on the learning objectives in each course and each stream. Clarifying what students are expected to learn is intended to identify parts of the program that can be aligned, streamlined, and strengthened.

Universities, faculties and schools are increasingly encouraged to engage in research that is relevant beyond their disciplinary boundaries. Architecture is especially adept at cross-disciplinary collaboration: in both the profession and the discipline, and in both design and research. The Faculty and the School are developing an ambitious plan to enrol more non-professional undergraduate students in the Faculty and to attract undergraduate students from other faculties to take courses here. This will introduce architecture and related subjects to more students, who later may decide to pursue architecture, to enter other design-related fields, or to act publicly as architectural advocates, clients, or community representatives. In turn, this should expand the possibilities for multi-disciplinary collaboration and research opportunities. This undergraduate plan also is intended to provide a more sustainable financial platform for the Faculty to withstand reductions in provincial funding. The plan involves expanding the existing Bachelor of Community Design program (based in the School of Planning), streamlining current BCD subjects, and devising a robust non-professional undergraduate curriculum that may include lecture-based courses from the BEDS program. This undergraduate program would include courses in planning, architecture, and the built and natural environment. This also aligns with the Faculty's plan to implement a Master of Landscape Architecture program in conjunction with the Faculty of Agriculture, which recently joined Dalhousie University. While the non-professional BCD program would be expanded, the professional architecture program (BEDS/MArch) would remain the same size.

A new design-build option in the MEDS program is now being advertised and supported by funding for graduate students. We hope to attract students from Canada but mainly from the United States, where interest in design-build is growing rapidly. This will provide financial benefits and expand our national and international role.

The School of Architecture has been exploring ways of integrating courses within each undergraduate and graduate term. This is intended to promote a more holistic understanding of architecture. Starting in the first term of the BEDS program, shared assignments and activities in Design, Technology, and Representation (and sometimes History) encourage students to recognize these subjects as thoroughly intertwined. This also encourages instructors to work together, so that students' learning experiences are more coordinated and profound. Adjustments to the content and sequence of the courses has led to changes in how faculty and students work together. Students are encouraged to integrate research and design from the beginning of a project: especially with attention to structures, building technology, building systems, and materiality. In two or three years, this approach should be well established in all parts of the curriculum: the courses, the way we teach together, the learning objectives, the activities and assignments, and the outcomes of each term and each teaching stream.

For many years, BEDS students have submitted a portfolio of original work for a promotion review at the end of Year 3 and Year 4. During the past two years, the School has stressed each student's documentation of design process. Each term, students assemble a bound 24" x 36" process portfolio. Its physical format can accommodate sketches, photos of sketch models, design iterations, notebook pages, design research, analyses of architectural precedents, and inspirations from other disciplines such as painting, sculpture, cinema, literature, and biology. As our students come to the School from many different disciplines, the process portfolio also invites cross-disciplinary pollination in the students' research and design work. By paying attention to process, students should be able to work more autonomously and

self-critically, with a more profound understanding of the crucial relation between design and research. By monitoring the process portfolio throughout the term, instructors also can become more aware of what the students are thinking and learning.

During the past three years, the incoming BEDS students have been presented with an exhibition of architectural work from several levels: Year 3 process portfolios from the previous year, work by MArch students, design and research work by faculty and adjuncts, and professional projects from the NSAA's Lieutenant Governor's Design Awards. This exhibition is another step in developing a broad awareness of relations between the school and the profession, as well as the many ways in which architecture can be explored, studied, debated, designed, constructed, and inhabited.

During the past year, the School's Professional Practice teaching group has expanded the permissible range of work term placements in the BEDS and MArch work terms, so that students can develop a multifaceted awareness of the profession that complements the knowledge they gain from working in an architect's office. The School also plans to establish additional exchange programs to introduce some of the MArch students to different ways of learning about architecture in different cultural settings. After returning from an exchange, students present their work to other students and faculty, so that others also derive benefits from the exchanges.

The School recently implemented an online events calendar that informs faculty and staff of events, meetings, lectures, and reviews. Technically, this is still a work-in-progress, due to hardware and software limitations. We hope to expand it later to include students and smart phones. We also hope to establish a system for online room booking within the Architecture building. During the past year we have prepared new websites for the Faculty of Architecture and Planning and the School of Architecture, based on the university's new web structure, which features an integrated system for news, events, and faculty research. As soon as the School of Planning's site has been prepared, the three sites will go live.

The Faculty's strategic plan expects the two Schools to consider how faculty teaching loads are distributed equitably and can support scholarly work. This could fine-tune the School's current system for quantifying and distributing teaching loads, which has been in effect since 2003. The School's trimester system maximizes the occupancy of the building but complicates faculty schedules. Faculty members teach during two of the three terms and are expected to do scholarly work during their non-teaching term. Because faculty members are on different annual schedules, course planning, term integration, and School administration can be challenging. Now that the BEDS program has been strengthened during the past two years, the School plans to focus more on the MArch program and its potential to advance scholarly work by faculty members. The School recently adopted a standard university-level salary scale for all adjunct instructors who teach courses and modules. Happily, salary discussions since then have become almost non-existent.

The Faculty and the two Schools are currently developing new standards for tenure and promotion that would clarify expectations of scholarly work, in conjunction with teaching. The related establishment of a new research and practice framework also could help identify common research areas and promote collaboration within the Schools, the Faculty, and the university.

Finally, parts of the Faculty's strategic plan depend on additional space for learning, teaching, and scholarly work. The university is proceeding with the IDEA project to build new facilities on the Sexton Campus, including large classrooms, studios, workshops, offices, and labs. This will permit greater collaboration among Architecture, Planning, and Engineering, as well as the Faculty's proposed Master of Landscape Architecture program.

Faculty Strategic Plan

The Faculty's Strategic Plan was completed on 2 June 2013 (see 4.9: Faculty of Architecture and Planning: Strategic Plan [2013–2018]). Objectives, measures of success, and a time line for implementation are included on page 8. They are organized into the following sections:

- Teaching culture
- Research culture
- Student experience
- Communications
- Human resources
- Resource allocation

The Faculty's five-year strategic plan follows the norms for the university. Its duration corresponds to the dean's five-year term, which also ends in 2018. The only university guideline for a Faculty strategic plan is to align with the university's strategic plan, "Dalhousie Strategic Direction 2014–2018," which was approved in 2014 and is posted at <http://tinyurl.com/ofnavmt>. The Faculty's strategic plan will be reviewed also during the Faculty's five-year review by a Senate/Faculty of Graduate Studies committee in early 2015.

2.0 Progress Since the Previous Site Visit

The previous CACB accreditation visit in 2009 granted the School of Architecture a full six-year accreditation period, with a Focused Evaluation Report after three years. The visiting team indicated that 34 of the 37 criteria were met. The Visiting Team Report indicated that three criteria were not met: graphic skills, building systems integration, and comprehensive design.

Graphic Skills

Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process.

The student work presented to the Visiting Team reflects a good level of hand drawing. This craft has become a culture within the school and part of the hallmark of the educational system, expressed in many ways across the programme, in Design Studios, but also in academic courses in history and theory, building technology and building systems integration.

While fully respecting the school's dedication to the craft of architecture and the presentation and preservation of the craft of design and making, the position risks leaving students both less equipped to successfully translate their works into the digital medium that is required to produce them and not having the opportunity to explore the potential of design and representation technologies.

The 2004 CACB report stated "Overall, however, a general lack of engagement with the full potentials of new media and technologies was noted as a concern." This statement is still true. While computer use is evident in the school, the visiting team found remarkable the preponderance of hand drawn materials in nearly all presentations on display. The students appear to be more comfortable with these traditional forms of representation than with computer graphic techniques for final presentation of projects. Students appeared to be using computer graphics as a back up to manual presentations, or as a tool for some components of their design process, but they then translate this into a series of manual drawings and models. Many of the students stated that they were attracted to the school because of this emphasis on hand crafted process. It appears that there is a taste for manual presentations within the faculty, and that the students respond to this.

The following points in our subsequent Annual Reports addressed this criterion:

Digital Media in Teaching

- A new faculty member specializes in parametric design.
- A new instructor specializes in digital and manual fabrication.
- A School-level computer committee has been set up.
- All incoming BEDS students are required to have a laptop computer.
- Digital assignments have been incorporated into Design, Representation, and Technology courses, with all students using Photoshop, InDesign, Excel, Vectorworks, Rhino, and Grasshopper.
- Students' process portfolios in Year 4 are now entirely digital.

Digital Media in Research

- A faculty member is doing funded research in electronic textiles.
- Two faculty members in the School of Architecture are setting up a digital research lab for modeling and prototyping.
- A faculty member in the School of Planning is setting up a digital research lab for transportation modeling.

Digital Media in Facilities

- Faculty workshops are incorporating digital equipment for CNC, GIS, and 3D printing.
- Incoming students receive tutorials in digital media.
- Workshop hours for students have been extended.
- All classrooms have a fixed digital projector.

- Three large portable monitors enable students to present their design work digitally in reviews.
- Several senior students are hired each term to provide computer support for other students after hours.

These efforts to increase the presence of digital media are complementing the program's traditional emphasis on manual drawing and modeling. Our aim is for the students to become fluent in both manual and digital media, so that they can move fluently between these two modes.

Following our Focused Evaluation Report (2012), the CACB's Focused Evaluation Team Report did not mention this criterion as an outstanding issue (4.7.2).

Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

Although integration of structural and enclosure systems appears to be adequately addressed in the projects exhibited, there is little evidence of the integration of environmental, life safety or service systems in the design work presented. Again the Coastal Studio is indicated in the matrix as the primary vehicle to address this issue, but there little was little evidence that this is achieved in a meaningful sense.

The following points in our subsequent Annual Reports addressed this criterion:

- Starting in 2010, the B5 Design course has been integrated with the B5 Building Systems Integration course, with both courses contributing to a single design project by each student.
- B5 students are achieving more technical resolution by focusing on energy balance, ventilation, fire and other code issues, structures, material choices, and façade details.
- Starting in 2011, a new required 6-credit-hour M5 Building Systems Integration course has been added alongside Thesis Preparation (replacing two electives) to encourage more technical development in thesis projects.

Following our Focused Evaluation Report (2012), the CACB's Focused Evaluation Team Report indicated that this criterion had now been met, adding the following comment (4.7.2):

The ARCH 4212: Building Systems Integration course has suitable content (presumably in tandem with previous building science courses), and is well integrated with ARCH 4005: Design. As noted above, there was some difficulty in separating assignments between the two courses. The FE Team notes that there is strong emphasis placed on the first assignment (energy modeling), possibly to the detriment of other course assignments. In the submitted student work structural systems are generally straightforward, the FE Team noted many basic deficiencies in the design of building envelopes (e.g. lack of insulation continuity, poorly resolved junctions, scale discrepancies, etc.).

Comprehensive Design

Ability to produce an architecture project informed by a comprehensive programme, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the programme's design criteria.

The Matrix indicates that this criterion is fully met only by two courses: 4212 (B5 Building Systems Integration), which is given in the final term of the BEDS programme, and 9008 (MARCH Thesis). The team found some evidence to conclude that the concept of comprehensive and integrated design was presented in course 4212, with the students using their own designs in the process. The team remains concerned that the design skills of BEDS students are not developed sufficiently to deal with a building encompassing all the systems involved in a truly

comprehensive design. At the advanced level, after reviewing a wide selection of recent thesis reports, the team found sparse evidence of comprehensive design.

The following points in our subsequent Annual Reports addressed this criterion. Some coincide with the points made for Building Systems Integration.

- Starting in 2010, the B5 Design course has been integrated with the B5 Building Systems Integration course, with both courses contributing to a single design project by each student; together, they expect a greater degree of technical resolution.
- Starting in 2011, the B5 Representation course has been integrated with the other B5 courses; the B5 History course augments the other B5 courses by discussing public institutions in the nineteenth century (the program for the B5 Design project has been a public institution).
- Starting in 2011, a new required 6-credit-hour M5 Building Systems Integration course has been added alongside Thesis Preparation (replacing two electives), to encourage a more comprehensive investigation and more technical development in thesis projects
- Starting in 2012, B5 students are required to submit a comprehensive project report at the end of the term, incorporating their work from all B5 courses.
- Starting in 2012, all BEDS Design courses are becoming more integrated with Technology and Representation courses.
- Starting in 2013, certain M1 and M2 design courses (and perhaps a co-requisite course in humanities and/or technology) have been designated as "comprehensive"; each Year 5 student must complete at least one comprehensive design studio during M1 or M2.

Following our Focused Evaluation Report (2012), the CACB Focused Evaluation Team Report indicated that this criterion still had not been met (4.7.2). It provided the following comment:

The FE Team recognizes that the comprehensive design studio (ARCH 4005: Design) complies with the intent of Student Performance Criterion 12.29 as reflected in the course outline. However, based on the submitted student work the FE Team is not convinced that the students have successfully demonstrated ability in all requirements of the criterion. Final submissions of student work exhibit deficiencies that might have been remedied earlier in the term; the submitted low pass work is below what is considered a minimum standard.

In 2013 the School submitted another set of student work to follow up on the comprehensive design criterion. This time the CACB indicated that this criterion had now been fully met.

The School provided full documentation of student project work that clearly meets the criterion for Comprehensive Building. You will note evidence of structural design and design of environmental systems, emphasizing minimizing energy consumption and reliance where possible on natural systems. ... I am now fully convinced that Dalhousie students are able to complete a comprehensive design. The Program is in compliance with the Conditions for Accreditation.

Other Concerns

In 2009 the Visiting Team noted two other causes for concern:

Space and Facilities

While there have been significant improvements to the space and facilities in the Faculty of Architecture and Planning building the Team must point out that some areas remain inaccessible. The Design Studios are overcrowded. The provisions for graduate students in particular are inadequate. The school requires additional space for lectures, classes, reviews, exhibitions and informal meetings. In a programme dedicated to the process of making, it is clear that the shops and fabrication facilities need to be expanded.

The Annual Reports since 2009 mentioned the following points:

- in 2009, the Faculty and School offices were renovated and the Resource Centre was relocated; both areas now provide better working conditions for staff and students

- lighting has been added around the perimeter of the faculty area so that it can serve as a secondary exhibition space
- in 2010 the university designated the auditorium and the three largest classrooms in the Medjuck Architecture Building as "common pool classrooms," which qualifies them for updated equipment and furniture, paid for by the university
- the university hired an architect and an engineer to develop schematic designs for upgrading the auditorium and providing universal access to the third floor; these designs have not proceeded, as other items have been a higher priority
- ECS and Architects Alliance completed a comprehensive space audit of Sexton Campus, as a step toward defining the program for new facilities on the campus
- from 2009 to 2011, the Vice President Academic/Provost convened a Design and Innovation Steering Committee with representatives from Architecture, Planning, Engineering to discuss academic programs and physical planning on the Sexton Campus
- the university is proceeding with plans and fundraising for a new IDEA Building that would augment the current facilities for Architecture, Planning, and Engineering

Graduate Student Financial Support

The programme should explore ways of improving the level of graduate student financial support.

The Annual Reports since 2009 mentioned the following point:

- the Faculty's outreach and alumni activities have substantially increased donations for student conference participation, the annual lecture series, and special events

The Dean continues to seek funding for scholarships and bursaries at both the undergraduate and graduate levels. One faculty member has obtained two large grants that will provide financial support to graduate students in the Design-Build option of the non-professional MEDS program and will provide work term employment to students in the professional program for the next six years. The School of Architecture has been successful in obtaining a \$17,500 SSHRC Bombardier Scholarship for three MArch students during the past three years. The Nova Scotia Government recently implemented a program that provided \$1.2 million in scholarships this year to the top master's and doctoral students at Dalhousie. Master's students are eligible for \$10,000. Unfortunately, the current application deadline does not align with Architecture's annual thesis schedule.

3.0 Compliance With the Conditions for Accreditation

3.1 Program Response to CACB Perspectives

3.1.1 Architecture Education and the Academic Context

The School of Architecture became part of a larger institutional and academic context when it joined Dalhousie University in 1997. As one of two schools in Dalhousie's smallest Faculty, the School of Architecture benefits from our institutional relationship with the larger university. Our professional and academic standards are monitored every five to seven years by a Senate / Faculty of Graduate Studies review. Our Dean meets regularly with the Provost/Vice President Academic to coordinate the interests of the Faculty and the two Schools with those of the University. Through the Faculty's Senate and Graduate Studies representatives, we maintain close contact with institutional standards and developments. The School contributes to the intellectual life of the university by showing how architecture and design benefit the university, the city, and beyond.

In 2012 the Nova Scotia Agricultural College in Truro became Dalhousie University's twelfth faculty: the Faculty of Agriculture. Building on this development, the Faculty of Architecture and Planning has been working with the Faculty of Agriculture to establish a new Master of Landscape Architecture program based in Halifax, along with new undergraduate courses and collaborations in Architecture and Planning. Adding landscape architecture to the Faculty will enrich the School of Architecture's immediate context within the already comprehensive setting of Dalhousie University.

The academic and social life of the School is evident in annual public events such as our Free Labs, Nocturne installations, and the Halifax Parade of Lights. With the Dalhousie Architecture Students Association (DASA) and several departments at NSCAD University, the School regularly hosts public lectures, exhibitions, and other events. We recently launched a Lunch-Hour Lecture Series, in which faculty members present a course topic or their current research work. These public lectures attract a local audience from the professional community and other faculties at Dalhousie and NSCAD. Tuns Press, recently renamed Dalhousie Architectural Press, is continuing with an expanded editorial board and a larger mandate to publish and distribute books on design research and architectural practices. In 2011 the School hosted one of the Canadian competition-exhibitions for the 2012 Venice Biennale. The School was also one of five Canadian architecture schools to participate in the exhibition at the Canadian Pavilion for the 2014 Venice Biennale. The School also participated in the 2013 RAIC Festival in Halifax, hosting events and displaying design-build work-in-progress. In October 2014 we will host the ACSA fall conference, "Working Out: Thinking While Building," co-chaired by Ted Cavanagh (Dalhousie University), Ursula Hartig (Technical University of Berlin), and Sergio Palleroni (Portland State University). The School's association with other architecture schools in Canada and the United States is reinforced by our involvement in ACSA and our Director's participation in the Canadian Council of University Schools of Architecture (CCUSA). Beyond North America, a CIDA-funded IYIP graduate internship program in The Gambia, West Africa, ended in 2013 and the Faculty is working to renew it. These various events and initiatives continue the School's associations with many different scholars, academics, administrators, artists, professionals, and the wider community.

The university provides substantial services to the Faculty of Architecture and Planning - Research Services, International Centre, GIS Centre, Facilities Management, Alumni Outreach, Capital Campaign, etc. - but also places substantial administrative demands on the Faculty. To gain the advantages of being a Faculty, we must serve administratively alongside the larger Faculties: by participating in the Senate, Senate committees, Council of Deans, Associate Deans Academic Council, and Faculty of Graduate Studies Council, and by participating in all university-wide debates and initiatives.

The university places a high priority on revenue generation by Faculties. We are required to meet shortfalls in operating budgets through revenue generated from additional teaching, research, and other activities. During the past several years, reduced funding from the provincial government has prompted the university to reduce funding to Faculties by up to 3% per year. In turn, this reduction has been passed along to the School of Architecture. At the same time, the University implemented an unofficial freeze on the appointment of new faculty members. This has presented challenges to the School's management of the professional architecture program. During the past few years, we also encountered a shortage of faculty due to four long-term medical leaves and several departures. Fortunately, short-term replacements were arranged and all of the faculty members have returned from medical leave. For the long term, the School recently appointed a new Director and three Professors of Practice and is currently proceeding with searches for two new entry-level tenure-track Assistant Professors.

The provincial funding reductions have led to a 10% increase in the number of students entering the BEDS program since 2011. The Faculty is also planning to introduce a non-professional undergraduate option that would reside in the School of Planning as an expansion of its Bachelor of Community Design program. This would increase the number of students registered in the Faculty, especially in the first and second undergraduate years, and would provide a broad foundation from which second-year students could continue in the BCD program, apply to the BEDS program, or proceed toward the proposed Master of Landscape Architecture program. Large first- and second-year lecture courses in environmental and community subjects would also introduce more students across the university to architecture and planning. This plan addresses the provincial funding cuts while expanding the Faculty's academic offerings and options. Due to the current space shortage on the Sexton Campus, this initiative would depend on the construction of the first phase of the IDEA Project. In turn, the implementation of the IDEA Project will enable the Faculty to proceed with the Master of Landscape Architecture program and collaborations with the Faculty of Engineering. The new IDEA facilities will provide more labs and workshops and will permit greater integration between digital fabrication and the design-build tradition of the School of Architecture.

3.1.2 Architecture Education and the Students

The School of Architecture provides many opportunities for students to develop their talents and assume responsibilities. Student representatives participate as voting members on all major academic committees, including the School of Architecture Committee, Program Committee, Teaching Groups, Admissions Committees, Appeal Committees, and Year-end Review Committees. This enables them to help formulate, review, and approve courses and program modifications. With the support of the School, the Dalhousie Architecture Students Association conducts its own affairs, including contracts for supplies and services such as printing and photocopying. Each year DASA organizes a lecture series, convocation dinner, publication of student design work (*StudioEast*), and social events such as a T-shirt design competition, an MArch ring ceremony, and fundraisers. Students are also involved in planning and implementing special events, such as exhibitions, conferences, design-build charrettes, workshops, and a new tradition: the end-of-term party, at which student work is exhibited and celebrated. These activities complement their academic studies and connect them to wider academic, professional, and local communities.

The professional program maintains a strong academic structure in its content and instruction, while responding to particular student interests. The required courses of the BEDS program (Years 3 and 4) are partially linked in their content and structure, providing a comprehensive architectural foundation for the MArch program. The graduate program places more emphasis on self-directed studies, evident in the diverse options of Year 5 core courses and the open electives. Within certain limits, students can choose the topics they want to study and the instructors they want to work with. The culmination of this independent trajectory is the MArch thesis, in which students define every major aspect of their work, within the framework

set by the School and the standards set by Dalhousie's Faculty of Graduate Studies. Each student's thesis work is formally examined by a committee that includes an external examiner: an accomplished architect or educator who is appointed to the university as an adjunct for a three- to five-year term. Over the years, external examiners have praised the School for its thesis studies, especially the maturity of the students, the breadth and diversity of their topics, and the thoughtfulness of both their writing and their design work.

Our co-operative work term program encourages students to develop professional insights that will help shape their careers. They work in a co-operative setting - typically an architect's office - for a total of three terms. To locate a suitable co-op placement, students rely on the Faculty's information resources, especially the Director of Community and Career Services, who is also an active member of the School's Professional Practice Group. Most students travel nationally or internationally for their work terms, gaining exposure to cultural and professional diversity. Following each work term, the School organizes student exhibitions, presentations, and critical discussions to reflect on the wide range of work experience in the class. This helps the School stay up-to-date with leading and emerging architectural practices. Students often invite employers and other work term contacts to the School as visiting critics or lecturers. These various professional activities promote student advocacy and leadership, both at the School and in the architectural community.

The School of Architecture recently established two new student exchange programs: one with the Faculty of Architecture at the University of Lisbon in Portugal, and one with the Department of Architecture at the University of Strathclyde in Glasgow, Scotland. Both are for students in the second term of the MArch program to live and study architecture in a very different cultural and academic context in a European city. When the exchange students return, they present their work and their experiences to the whole school.

Internal and external scholarships are helping our students pursue their academic interests. Our long-standing Rosetti Scholarships in Architecture provide annual funds for up to six MArch students to prepare for their thesis year by conducting supervised research in another part of the world. After returning, their work is exhibited and presented to the whole school. Our students and recent graduates have been receiving a growing number of national awards and scholarships. In 2013 Emily Wilson (BEDS) was awarded the Royal Canadian Academy of Arts / Ernest Annau Scholarship for Architecture. Brett MacIntyre (MArch 2012) received the 2013 Canada Council for the Arts Prix de Rome in Architecture for Emerging Practitioners. Gavin Schaefer (MArch 2014) received the 2013 Scholarship in Honour of Michael Evamy. Three MArch students have received a SSHRC Bombardier Scholarship during the past three years. This year, an MArch design project by Caitlin Biggar, Fatima Rehman, and Anders Peacock was selected for the "Arctic Adaptations" exhibition in the Canadian Pavilion at the 2014 Venice Architecture Biennale.

The School of Architecture has been able to offer various studios or courses in which students travel abroad and develop design work for a distant location with a different landscape and cultural context. Their design work is usually complemented by co-requisite courses in humanities and/or technology, to encourage a more integrated response to the local situation. During the past few years, students have worked in India, Botswana, Colombia, and Norway. This year most of our M2 students will travel to New York City or Cuba to develop projects for these locations.

3.1.3 Architecture Education and Registration

Since 1970 the School of Architecture has been actively engaged with the profession, both nationally and internationally, through its co-op program. This ensures that students can move efficiently between school-based and practice-based studies in architecture. The local, national, and international characteristics of internship and licensure are addressed at particular times in the program, guided by the School's Professional Practice Group. The School stays up-to-date on registration issues through its active participation in CCUSA, ACSA, NSAA, and RAIC.

The Professional Practice stream and the co-op program are the School's two main mechanisms for understanding internship and licensure. The Faculty has a full-time Director of Community and Career Services who maintains a high-quality employer network. The Co-op Office assembles current information on worldwide career opportunities for students and alumni seeking employment and career advancement. The Co-op Office also relies on its student and alumni database to advise employers who are seeking participants for projects and practices.

The BEDS/MArch program includes five required Professional Practice courses and twelve months of co-op work terms. There is a clear progression from the four-month undergraduate work term to the eight-month graduate work term, and then to internship after graduation. The Professional Practice courses are placed strategically in relation to the work terms. They address a wide range of topics, starting with the CACB student performance criteria in B1. During the annual one-week Professional Practice module for B2, B5, and M6 students in the winter term, leading-edge practitioners lecture on both their work and their practice. Practitioners from Halifax and beyond also serve as co-instructors or full instructors for some of these courses. Our main objective in this area is to build a seamless, yet critical, connection between academic work and professional practice.

In 2012 the School of Architecture received university approval to establish a new faculty appointment category, Professor of Practice. This is intended to increase awareness of leading-edge practice at the school. It includes teaching and administrative responsibilities but no research expectations; instead, the faculty member's teaching is complemented by his/her practice. In 2013 three 33%-FTE Professors of Practice were appointed to a renewable three-year position.

The School maintains close ties with provincial and national regulatory bodies. A School representative is a voting member of NSAA Council, while an NSAA representative is a voting member of the School of Architecture Committee. The School collaborates with the NSAA in many activities: organizing lectures and site visits, attending NSAA events, establishing scholarships for students, and serving on the jury for the annual Lieutenant Governor's Awards for Architecture. The NSAA also participates in our BEDS orientation week to welcome the new students. Together, the School and the NSAA created the Keystone Awards program in 2010 to recognize professional accomplishment in architecture at a gala dinner every two years. Funds from this event provide student bursaries. At the annual Convocation Tea for graduating students, a representative from the RAIC presents each graduate with a one-year intern membership, and both RAIC and NSAA representatives present awards to students.

Respect for continuing education is encouraged by the increasing emphasis on self-motivated and self-directed learning in the MArch program, recognizing that continuing education is mandatory for architects in Nova Scotia and in most parts of the world. By working alongside professionals in academic and professional settings, students recognize the importance of lifelong learning.

Students' understanding of responsibility for professional conduct is engendered through the Professional Practice courses and other courses such as Free Lab. These courses focus on aspects of employment during the work terms and beyond. Ethics, legal issues, practice management, and regulation are discussed in the B2/B5/M6 Professional Practice module in the winter term and are reinforced in several other courses, as noted in the SPC matrix (3.12.3). Internship, registration, and Canadian examination requirements are also discussed. Some national and North American studies on internship recently have been released but the percentage of Dalhousie alumni who have become licensed since the last accreditation visit is not known.

3.1.4 Architecture Education and the Profession

The School maintains a close working relationship with local professional communities to develop collaborative opportunities for both students and practitioners. Groups from the School often work with local communities in both undergraduate and graduate design studios, as well

as the design-build Free Labs in July. Members of the profession enrich the School's academic culture through their participation in academic courses and the public lecture series; conversely, faculty research presented in exhibitions, publications, and workshops contributes to professional development. This give-and-take is also evident in the work term placements, in which students benefit from the hands-on experience of practice, while offices can recruit their next generation of talent. As our alumni move into the profession, they become senior members of local and national practices, public offices, and professional organizations.

The BEDS/MArch program regularly includes registered architects as part-time instructors or as special lecturers in design studios, electives, and courses in technology, representation, and professional practice. This increases the students' awareness of cultural diversity, an expanding knowledge base, and changing client and regulatory demands faced by the profession.

The Professional Practice stream helps students appreciate the diverse and collaborative roles of architects. During the one-week winter module, regional, national, and international practitioners present different approaches to practice, ranging from design-based models to specialized construction management. New alumni have also been invited to speak about their internship and professional experiences since graduation.

Students are introduced to the professional code of ethics in the first Professional Practice course. Throughout the whole Professional Practice stream, students are challenged to address issues of ethics, professional responsibility, architectural judgment, and ecological responsibility. They also learn about the collaborative nature of the profession, involving clients, other professions, regulatory bodies, builders, the public, etc. Through the "reality" of projects in every stream of the program, the students appreciate the challenges faced by architects to reconcile their cultural and professional obligations. The School also engages the profession by encouraging work term students to examine and report on leading-edge architectural offices and associated professions around the world.

In studio courses, electives, and Free Labs, students may work with local and regional architects with expertise in design or a specialized subject. In technology courses, students are also introduced to associated disciplines, including structural, acoustic, and mechanical engineers, envelope and lighting specialists, landscape architects, interior designers, and graphic designers.

3.1.5 Architecture Education and Society

The School of Architecture is centrally located in downtown Halifax. From this location, our faculty and students work with many different communities: urban and rural, local and distant, regional and global. The School is recognized for its attention to local values, everyday experience, and their place in the history, theory, and practice of the discipline. Students are encouraged to pursue the social and cultural relevance of architecture through a real engagement with landscapes, sites, architectural traditions, and communities. This involves direct experience, research, and design process: both within and around the architectural discipline.

The design projects in the BEDS/MArch program are rooted in different "real" conditions that become increasingly complex at the upper levels. Case studies identify community issues and explore social and environmental questions. Buildings and sites are always studied in their larger social and geographical contexts: streets, neighbourhoods, villages, cities, and regional landscapes. Students develop their projects both individually and in groups, preparing them for future challenges of multiple authorship and conflicting design intentions. This highlights the different interests and perspectives that arise in any project with social and cultural relevance.

Architecture is presented as a collective and public enterprise in which design intentions are developed through a complex sequence from conception to detail, construction, and use. Many of the design studios work on projects that involve the students in real issues, real people, and real communities. Students are faced with social and economic challenges that are

comparable to what they may encounter later in their own communities in Canada or abroad. As students advance through the program, they are expected to work with greater focus, guided by informed values that go far beyond problem solving. The School emphasizes architectural design as a way to address significant questions in intellectual, historical, cultural, and environmental contexts. The courses in the various streams culminate in a thesis that is both robust in design and socially and culturally relevant.

The School also promotes civic engagement and a local commitment to professional and public service. Students often participate in public meetings and presentations, either at the School or with community groups. This atmosphere of professional involvement is also evident within the School, as the Dalhousie Architecture Students Association participates in many discussions and decisions, alongside faculty members and adjunct instructors.

3.2 Program Self-assessment

3.2.1 Assessment by the School of Architecture

The following comments (3.2.1), written by Director Diogo Burnay in consultation with the School's Program Committee, reflect on the School's current standing in the four areas of the mission statement (1.1).

The School continues to provide a nurturing education in architecture that offers students many different perspectives on the discipline and the profession. The professional program recognizes the discipline's wealth of traditions, while promoting innovation through the various ways we teach. In each term of the BEDS program, design, technology, and representation courses are becoming more integrated for students to gain a holistic understanding of architecture. The humanities courses throughout the program present broader contexts in different times and places, while encouraging critical positions within the discipline.

We are still insisting on the seminal role of hands-on learning through hand drawing and physical modeling. This promotes a high level of craft among students and encourages a profound respect for the history of the architectural discipline. It also helps students understand how these practices remain fundamental parts of the discipline amidst contemporary debates, changing needs, technological innovations, and different ways of practicing architecture. As the range of an architect's design tools continue to expand, we are encouraging our students to develop a thoughtful fluency across the range of manual and digital media. The School requires students to learn how to design buildings in an integrated way throughout the entire program, gradually understanding the complexities of architectural design as they face different programs and different physical and cultural landscapes.

Respect for architectural tradition is complemented by a continual encouragement for students to develop critical positions in contemporary debates and to define their own professional ambitions in the various modes of practice in Canada and around the world. This is achieved through diverse graduate courses and design studios, in conjunction with the opportunities and options that arise during the five professional practice courses and the undergraduate and graduate work terms.

Our students are encouraged to participate on school committees and to take on leadership roles in the school and in communities in Halifax and beyond. During the past twenty years, our annual design-build free labs have exposed students not only to hands-on approaches to designing and building, but also to the social and cultural engagement of architects within communities. This continues to be a great opportunity for students to work closely with a community and to witness the direct social impact of architecture.

The common BEDS curriculum provides a solid foundation for the more diverse paths in the MArch program. While meeting the expectations of a professional program, the School offers MArch students a series of educational options. By selecting core courses and a free lab in Year 5, choosing a location and practice for their co-op work term placement, and then defining their own thesis topic in Year 6, students develop confidence and a critical sensibility. With an emerging understanding of both school and practice, they can also anticipate career directions and their eventual role in both architecture and society.

Although the School of Architecture continues to face challenges involving finances and facilities, its core mission remains strong and the professional program is evolving to become even stronger and to provide additional opportunities to students and faculty.

3.2.2 Assessment by the Student Body

Near the end of each term, students assess their instructors, using an online survey. In addition to statistics for individual instructors, the university generates statistics for the entire set of Architecture instructors during that term, resulting in mean values on a scale from 1 (strongly

disagree) to 5 (strongly agree). (Summer 2014 results are not yet available, so the Summer 2013 results have been included.)

	Standard Questions from the University (scored out of 5)	Summer 2013	Fall 2013	Winter 2014
1	Stimulation of learning: The instructor conducted the class/clinical in such a way that I was stimulated to learn.	3.7	4.03	3.87
2	Organization: The instructor organized the class/ clinical well.	3.9	3.97	3.83
3	Communication: The instructor communicated clearly during the class/clinical.	4.1	3.97	3.94
4	Enthusiasm: The instructor showed enthusiasm for the subject matter of the class/clinical.	4.3	4.42	4.26
5	Fairness: The instructor used fair evaluation methods to determine grades.	3.8	3.91	3.79
6	Feedback: The instructor provided constructive feedback (considering the class/clinical size).	3.8	3.97	3.88
7	Concern for learning: The instructor showed genuine concern for my learning.	3.8	4.13	4.05
8	Overall teaching effectiveness: Overall, the instructor was an effective teacher.	3.8	4.07	3.91

The School of Architecture asks five additional questions about courses:

	Extra Questions from the School (scored out of 5)	Summer 2013	Fall 2013	Winter 2014
11	The course is fully described in the course outline.	n/a	4.22	4.06
12	The course has relevant, well-designed assignments.	n/a	4.12	3.91
13	The course has a reasonable workload (not too heavy for its credit weight)	n/a	4.06	3.95
14	The course is appropriately challenging (not too easy at this level in the program).	n/a	4.23	4.03
15	The course is a valuable part of the curriculum.	n/a	4.59	4.07

3.2.3 Assessment by Individuals

In February 2014, all School of Architecture alumni, students, and faculty were invited to complete an anonymous online questionnaire with five questions based on the five CACB perspectives. The responses below have been selected to present an array of insights and opinions, without duplication. They are copied verbatim, except for corrections to spelling and grammar.

Architecture Education and the Academic Context

Question 1: To what extent does the Architecture program benefit from its university context, and to what extent does it contribute to its university context?

"The only connection is to the engineering campus library. Otherwise the campus is too remote to properly engage with the rest of the university. Very little effort is made to integrate."

(BEDS graduate, 2009)

"The Architecture school maintains ties to the rest of the engineering campus through some shared facilities. The University grounds and plan also provide a means for study and analysis. The Architecture program is the most public face of the university in the downtown of Halifax because of its location. Dalhousie architecture students are often creating public art projects that benefit the university and its public space."

(MArch graduate, 2008)

"During my time there, I found the architecture program to be somewhat isolated from its university context, both physically and in a program sense. It seemed a shame that there was little opportunity for cross-fertilization of ideas and expertise."

(MArch graduate, 2002)

"It benefits greatly from the university context. It also brings more credibility to the university and the entire city. I live in a large city without an Architecture program and it limits architectural discussions."

(BEDS graduate, 1990s)

"During my years at the school, it was not at clear to me (as a student) how the School of Architecture benefits from its university context. Dal certainly benefits as it's the only school of architecture in the region and complements its program offerings."

(MArch graduate, 2010)

"The architecture programme is as intense as it is inwardly focused. Thus, while it has derived some benefits from being part of Dalhousie, it has yet to derive the full benefits of being part of a research-based multiversity. It follows that it while Architecture continues to make unique contributions to the larger university, the larger university has yet to enjoy the full benefits of the relationship."

(emeritus professor)

"The school benefits from university resources such as the Sexton library, GIS, computing, etc. To a lesser extent the school also benefits from academic interchange with other faculties: Engineering, Environmental, etc. The university is also a limited source of some 2nd year students to the program. Some areas of architectural research are cross-disciplinary, such as Coastal Studios. The architecture program also contributes to the university by investigating architectural projects related to the university and the community. Many free lab projects provide community outreach and therefore good publicity."

(faculty member)

"The architecture program benefits tremendously from its university context. Were it not in a university,

- It would not have a comparably qualified teaching faculty.
- It would not support independent faculty research.
- It would likely not have job security.
- It would not recruit the same caliber of student.

The architecture program contributes to its university context:

- As a professional program with an excellent reputation, it draw students to the university and the Faculty before they are admitted to the program.
- It fills out the university's roster of graduate professional programs, a huge reputational factor for the university.

- Some faculty research is highly visible, built in local communities and with local partners. This is a significant asset to the university, which is often perceived locally and provincially as elite and aloof'."

(faculty member)

"Very little. Physically, the campus is separate from the main body of Dalhousie, and has almost nothing to do with it. Because it's a set and integrated program, we're not even having electives on main campus. There's some interaction between architecture and planning students, but I think that that could be utilized to benefit both programs more."

(adjunct instructor)

Architecture Education and the Students

Question 2: To what extent does the Architecture program provide support and encouragement for students to achieve their full potential during their school years and later in the profession? To what extent does it provide an interpersonal milieu that embraces cultural differences?

"On day one, professors judge the students and place them into categories. Once placed into a low category it is near impossible to raise yourself out. Highly political and a lot of game playing between professors. Highly unprofessional and extremely disrespectful."

(MArch graduate, 2005)

"Having the program start after 2 years of university in a variety of disciplines is a great way of allowing students to appreciate diverse backgrounds and experiences."

(MArch graduate, 2007)

"The program itself did not provide that support. One needed to be self-supporting and have a thick skin to survive. Which may, in retrospect, have been very good training. Cultural differences - not an issue in my experience. But for one of our professors, there was a significant interpersonal problem to the extent that students rallied on his behalf, and 'went on strike'. The entire experience was stressful for many."

(BArch graduate, 1980s)

"The Architecture program provides support in the form of both academic encouragement and practice options during the co-op terms. Cultural differences are welcomed and evident in both the breadth of the courses offered and the nature of the practices interested in hiring Dalhousie Architecture students."

(MArch graduate, 1980s)

"Was fantastic for achieving potential in school. The co-op work terms were good preparation for the profession (insofar as that is even possible). While I was attending, the school had several programs that brought in students from different places beyond the typical multicultural makeup of a Canadian university. This was fantastic and created a critical mass of people who were not from Canada and therefore did not feel the need to conform but rather gave a chance for cultural differences to be expressed."

(MArch graduate, 2008)

"A diverse student body and diverse faculty ... in age, gender, nationality ... goes a long way in establishing a supportive and encouraging atmosphere. Dal Architecture is exemplary in this respect. Since graduation, the school has remained in close contact, providing regular updates on the current program and also alumni, and hosting regular social events for alumni. Although clearly there is a component of fund-raising expectations, this also serves to initiate a supportive professional network later in the profession."

(MArch graduate, 2002)

"The co-op program puts students in touch with bright and successful people working in the real world. It's a great chance to get a grounded perspective on design and practice. In terms of embracing cultural differences, I found the school to be disinterested in the perspectives of

foreign students. Dal attempted to engage thinking with study abroad trips and so on, but ultimately took a provincial perspective with an almost exclusive focus on western modernism."
(MArch graduate, 2007)

"Students come to our programme from a wide variety of disciplines and backgrounds, many with prior degrees, some with graduate degrees, and still others with professional experience in other fields. Our programme relies on this rich 'stew' as the foundation of its learning and teaching environment. A few other ingredients - the co-op programme, in-situ studios, lots of group work and hands-on labs - make for an empowering milieu that celebrates personal and cultural differences. But by far, the greatest success of the architecture programme is the mysterious ways in which it enables a high proportion of its students to build on the strengths which they bring to the programme."

(emeritus professor)

"The program does not generally encourage students to reach their full potential. With the exception of a select few professors, most professors impose their own ideals and ethics on students, prescriptively forcing them to work in specific ways, which do not necessarily broaden their creativity or teach them anything of real value. Often, ridiculous and arbitrary goals are set in terms of work, and students find their work compromised by a lack of time and energy to apply their own ideas properly. The interpersonal milieu is provided in the form of studio, but it is caustic, creating stress and competition (when none is required), ultimately descending into a culture of either one-upmanship and worry. Favoritism by professors is rampant. Cultural differences are embraced, but in relatively few specific and program encompassing ways. Often, this is achieved via "Freelabs" that visit foreign destinations."

(no identification)

"The Architecture program provides overall good support to students during the academic terms. The support for the work terms could be improved. The school embraces cultural differences with the exchange programs, work terms, Rosetti Scholarship research and support of the Gambia Architecture program."

(MArch student)

Architecture Education and Registration

Question 3: To what extent does the Architecture program provide students with a sound preparation for the transition to professional life, including internship and licensure?

"The realities of the profession are very different from the work in the program. The profession is not nearly as much fun as school. Internship and licensure is an extremely complicated process and school only broached the subject."

(MArch graduate, 2007)

"The program has a 'professional practice' module to ease the transition into a working life. Dal is a design focused school - this is good, as design is hard to learn in the office. Most students are not focused much beyond thesis and graduation, and it is a bit of jolt for many when they actually work in an office. However, the co-op nature of the program is fabulous and the best preparation there can be."

(MArch Post-Prof. graduate, 2005)

"Internship is again embedded in the co-op system and is one of the reasons I chose to accept the offer to attend Dalhousie University School of Architecture. The transition to licensure is a bit more complex and there could be more support. Ideally there might be an opportunity to begin with the practice of the examinations while still in the academic environment. Once life hits, it is much more difficult to carve time away from a demanding practice and personal life to complete the examinations necessary. One area that all schools could put more effort in is the ongoing support of graduates and encouragement to complete the licensure, helping to grow the profession."

(MArch graduate, 1980s)

"The co-op semesters were a fantastic opportunity for real work experience. The school could have been better involved in providing support to students during this time. It was nevertheless valuable. More introduction to the licensure process and perhaps a class in the last year that was directed towards this purpose would have been valuable. Most people abandon licensing after school for a few years because they are tired of studying."

(MArch graduate, 2008)

"The internship/licensure requirements in Canada (BC) are currently in transition, so it's hard to comment. I felt that professional practice courses did not address internship and licensure requirements, strategies, etc. in a meaningful way when I was a student. Career timeline scenarios, exam and relevant experience strategies, mentoring opportunities with registered architects, etc. could be helpful."

(MArch graduate, 2002)

"Work terms are essential for students to have an opportunity to experience the real working world. It's a difficult concept to TEACH in class, though it's helpful to have classes such as Professional Practice. However, most local jurisdictional internship and licensing procedures are tedious and onerous. The local chapters are not helpful in its requirements, rarely supportive and the process a terrible financial strain on recent graduates."

(MArch graduate, 1990s)

"The co-op programme, an uninterrupted stream of professional practice courses, on-going contact with local practitioners, intermittent contact with imported practitioners/guest-lecturers and -critics, and recent graduates, together provide a sound introduction and transition to professional life."

(emeritus professor)

"There is not question in my mind that the work program is what truly sets this program apart. The value of work terms is invaluable. With regard to internship and licensure, work experience and requiring the candidate to complete a certain scope of services prior to licensing is necessary."

(BEDS graduate, 1980s)

"The co-op program is good in that it gives students an opportunity to test the job market out for themselves. Although some opportunities are provided by the school, most of the work to acquire a work term position is done by the students themselves. This is necessary training for the field of architecture, where it is often difficult to find work upon graduation. It also prepares students for the stark contrast between academic and practical architecture, where much of what is taught in the lecture hall or studio is thought of as frivolous in the actual profession. Students who are interested in practical concerns rather than conceptual meanderings are given the opportunity to learn about how things work in the field."

(Year 5 MArch student)

"From personal experience, after having completed one semester of internship, I simply was not prepared for professional work. For example, the school suggests Vectorworks as its CAD software, but doesn't really provide any formal instruction as to how to use it. In so far as the drafting software of choice in most offices is AutoCAD, the emphasis on Vectorworks is time utterly wasted. The school does not provide the necessary technical instruction for professional work. The burden of learning is very much on the student for these two aspects of architectural education."

(Year 4 BEDS student)

"The integration of a full year of professional practice into the academic curriculum allows Dalhousie's program to be the second best in the country in fully embracing the professional and practice dimensions of an architectural education, second only to the Waterloo program, which is at least a year longer. Preparation for professional architectural practice runs across the whole program, from being a big driver in recruitment to the program, to the academic and practical content, and the goal-setting for internship and licensure."

(faculty member)

"Quite well, I think. We have a Professional Practice course each term aimed at teaching us about the practice of architecture. This includes construction site visits, lessons on the procedures of architecture as a business, and seminars with visiting architects about their particular practice. The program also includes one semester of work term during the bachelor's program and two more semesters during the master's program."

(Year 3 BEDS student)

Architecture Education and the Profession

Question 4: To what extent does the Architecture program prepare students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base?

"Too many ideas in one sentence! Cultural diversity - wasn't much of an issue back then. But became significant over the years (esp. Persons with Disability). Regulatory changes - you mean the Code? Environmental? Licencing? Expanding knowledge base - this is ongoing, and architect needs to be intrinsically interested in continuing education. Not something the program emphasized. Again, things may be different now. I imagine they must be."

(BArch graduate, 1980s)

"The co-op terms allow students to assume these new roles and prepare for professional practice. There is a certain flexibility in the types of work in which one can engage. Also, the humanities courses provide opportunities for reflection on the ever-changing role of the architect. We also recently participated in the Arctic Adaptations competition (as a full design studio), which allowed us to engage in cultural and technological research. It was a very exciting offering, and exposed us to the more critical practice of architecture - one that required an incredible knowledge base."

(Year 5 MArch student)

"Much more work is needed here, especially when it comes to persons with disabilities and our aging population."

(BEDS graduate, 1990s)

"Architect's clients, demands, tools, etc. are always changing. The school does a very good job at teaching fundamentals and encouraging students to develop their own approach/process/praxis which they can take to any situation. This is complemented by enabling students to apply their approach during work terms."

(MArch graduate, 2010)

"All of those problems boil down to problem solving, lateral thinking and personal skills. The skills that allowed me to have success in school are essentially the same skills that have allowed me to deal with those types of problems in practice - so I think the school did an exceptionally good job in this regard."

(MArch graduate, 2007)

"Architecture at Dalhousie is only a beginning. The student who ceases to learn at graduation will not work for any extended period of time. This is only a milestone in a continuous process of learning and developing. A good architect typically matures later in life, after having learned the language of architecture from experience and exposure. A graduate who is intent on continuing an education and excelling at his profession will be continuously learning and expanding at a technical level and through the understanding of the application of suitable aesthetics. Architecture prepares a student for a wide variety of abilities and these are developed as a graduate learns from others. This process develops talents for a whole variety of job applications. More and more, graduate architects are moving into non-architecture-related positions, because they bring the variety of tools necessary to organize and operate within the context of many applications. As the world becomes a smaller place, with cultures converging, architects are well placed to understand the diversity of needs and responses, to make environment and community suitable for this diversity. Architects are taught to adapt to any given situation with moral and valuable responses and solutions. This enables graduates to meet the demands of cultural diversity and other pressures which are normal for our life and practise."

(BArch graduate, 1970s)

"It's hard to say. Some faculty address these crucial elements; however, the faculty also is consumed in their egos. For example, Dalhousie hired a professor named Dr. Maria Elisa Navarro Morales, and rather than supervise this professor's assignments they let her reign free and do whatever she wanted. In a history class where we were all excited to learn about architectural history we were asked to make random models that did not have anything to do with architecture, make masks (yes, masks that you wear on your face), and do all sorts of other tedious and time consuming tasks that took away from our efforts in our other core courses. Supervision of instruction is desperately needed. This should not be the way of a professional program."

(Year 4 BEDS student)

"The architecture program provides students an excellent foundation to begin practice. As a graduate professional program in a large research university, the architecture program conceives of itself as contributing to and advancing change in the discipline — that is, paradigmatic change, rather than economic or systemic change. However, to stay relevant and ideally 'ahead of the curve', Dalhousie's architecture program needs to be aware of and reflect on economic and systemic change in the profession and in society at large. These include:

- the accelerating consolidation of independent design firms into large corporations integrating development, planning, regulation, architecture, landscape, engineering, project management and even operations
- demographic changes including depopulation, aging populations, economic decline, immigration, changing social mores, etc.

Our program encourages our students to reflect on current social conditions and to project themselves into design practice engaging with these challenges."

(faculty member)

"I'm not sure. They have expressed that these are issues in the field of architecture. I can't say how/whether we are being prepared to work within that context. Our professors frequently change the rules and requirements for our assignments, forcing us to think and adjust quickly. But I couldn't say whether this is a teaching device or the result of poor organization. For example, last semester our classes were mostly "integrated," which meant each project in the term would have different aspects which were requirements for different courses. This sounds like a good idea, since architecture is a very integrated field, and you need to be employing knowledge/skills from different areas at the same time. However, the requirements weren't clear between the different professors, and the result was lost working time while they worked out what the actual parameters for the assignment would be among themselves. I have heard faculty talk about this shining ideal of an integrated program, but as a student, I just don't feel that it has been executed very well. This semester has been less integrated, and in my mind has gone much more smoothly."

(Year 3 BEDS student)

Architecture Education and Society

Question 5: To what extent does the Architecture program equip students with an informed understanding of social and environmental problems, and also develop their capacity to help address these problems with sound architectural and urban design decisions?

"The environmental program is adequate but could improve with a tighter connection with the [college] of sustainability on campus. Social issues are dealt with in the context of history."

(BEDS graduate, 2009)

"Each design studio addresses a certain set of questions, which deal with social, environmental, and technological issues. These allow for individual research and positioning on the issues. Case studies in various courses demonstrate how architects have addressed certain challenges. As mentioned, the Arctic Adaptations competition/studio introduced us to the situation of the Arctic and helped sharpen our attitudes to it, and to the way we approach other situations. Public

lectures and professional practice week by architects and other designers inform us of issues. Humanities seminars are incredibly important for understanding the social aspects."
(Year 5 MArch student)

"Architecture students are 'rewarded' for good work with good comments in critiques. Students who take the time to research social and environmental problems and incorporate strategies into their designs are often not rewarded with comments that reflect their investment in time and effort. Many students who had an interest in social and environmental problems don't find the time to understand the issues fully because other things are valued by the faculty more, like representation or conceptual rhetoric."
(Year 5 MArch student)

"The school is very design oriented. This is a plus. It boasts an 'integrated' approach to architecture which I find falls short of its reputation. We skim the surface of any and all pertinent issues, unless an individual student has a particular question pertaining to his or her design. Once again, the burden of learning is very much placed on the student, which I suppose helps them to think critically in addressing their own problems."
(Year 4 BEDS student)

"Students seeking an architectural education do so because they are interested in improving the world, not only themselves. They see architecture as a positive and progressive profession which is committed to creating more beautiful, more humane, and more sustainable living environments. The architecture program does not need to make a big effort to foster this drive. It does, however, need to equip students with sufficient general knowledge and to engage them in thoughtful conversation, reflection, and ultimately, in committed action to find their own contribution to present day challenges. The program does an excellent job of equipping students with skills to address social and environmental problems. It does a pretty good job of developing an informed understanding of these challenges. The breadth, variety and engagement in significant social and environmental concerns that infuses the architecture program is best demonstrated in the final term thesis."
(faculty member)

"Fairly well. We work in small groups with knowledgeable tutors who challenge our design choices, and make us think through and develop our work as much as possible. They also help by offering technical suggestions, or by showing us architectural precedents relevant to our projects to see some different approaches to a design issue."
(Year 3 BEDS student)

"The School of Architecture is perhaps equally strong in informing students about social and environment issues, but its ability to teach the fundamentals and responses to the social aspect is better than the environment aspect. Course content does not address the environment issues in a structured or comprehensive way."
(Year 5 MArch student)

"The school has implemented aspects of the curriculum which respond to environmental and urban issues but this aspect of the program could do much more in specific areas of research. These issues are increasingly the province of specialists where education, training and experience in the field supplement the education offered in the program. In general the program provides a sound basis for the student to develop these specialties."
(MArch graduate, 1990s, and adjunct instructor)

"I think that the school programs are able to equip the students to some extent. What perhaps is missing is a better integration between the design stream and technological stream. There is an effort for technology to complement the design but perhaps less effort for the design to demonstrate technological impact."
(adjunct instructor)

3.3 Public Information

3.3.1 University Calendar

The following section is an excerpt from Dalhousie University's 2013–14 Undergraduate Calendar. Similar information is provided in the Graduate Calendar. The CACB statement is included in the "Accreditation" section.

Introduction

The School of Architecture, which is part of the Faculty of Architecture and Planning at Dalhousie University, was established in 1961 to serve the Atlantic region. While it continues to fulfil its original mandate, the School also contributes nationally and internationally to architecture through its dynamic faculty and committed student body. Its primary aim is to educate individuals who intend to become professional architects. The School's professional degree program includes the two-year Bachelor of Environmental Design Studies degree and the two-year Master of Architecture degree. Most of the program is conducted within the School of Architecture by full-time faculty members. It also includes two co-op work terms in which students gain practical experience in an architectural office. The curriculum enables architectural education and practice to develop in parallel.

Design

The central activity of the professional degree program is architectural design - the creative study of buildings and cities. In the School's design studios, students examine historical and contemporary buildings in Canada and abroad, and respond through the design of new architectural projects. From the core studies of the undergraduate program to the elective studies and design thesis of the graduate program, students learn to rely on their artistic skill, their knowledge of history and technology, their social and cultural awareness, and their critical imagination. Architecture is a multi-disciplinary profession, with alliances to the fine arts, the humanities and technologies, and many undergraduate disciplines provide an effective entry into architecture. Conversely, architectural studies provide an excellent foundation for careers in a variety of design-related fields.

Facilities

The School is housed in the original home of the Nova Scotia Technical College, built in 1909 and renamed the Ralph M. Medjuck Building in 2005. Corresponding to the School's emphasis on architectural design, one-third of the building is devoted to studio spaces that are open to students twenty-four hours a day. The building also has several computer labs with a wide array of equipment, a fully-equipped woodworking shop, an experimental construction lab, a digital modeling shop, photographic and GIS facilities, and a large exhibition hall. The University Library's architecture collection is located nearby and a student resource centre is housed within the Faculty.

Co-op Work Terms

The School's professional degree program includes two work terms that provide students with practical experience in building design and responsible professional practice. The School's Co-op Program has been operating since 1970, and the Faculty of Architecture and Planning's Co-op Office assists students in finding suitable work term placements. In recent years, Architecture students have been employed in every province and territory in Canada, and approximately one-third have chosen to work abroad - most recently, in Argentina, Austria, China, Egypt, England, Germany, Iran, Japan, Netherlands, Norway, Singapore, Switzerland, and the United States.

Accreditation

The School's professional degree program is fully accredited by the Canadian Architectural Certification Board (CACB). The entire six-year program consists of two years of general studies at a recognized university, followed by two years of undergraduate study at the School of Architecture (BEDS) and two years of graduate study at the School of Architecture (MArch).

In Canada, all provincial/territorial associations/institutes/orders recommend a degree from an accredited professional degree program as a prerequisite for licensure. The Canadian Architectural Certification Board (CACB), which is the sole agency authorized to accredit

Canadian professional degree programs in architecture, recognizes two types of accredited degrees: the Master of Architecture (M.Arch.) and the Bachelor of Architecture (B.Arch.). A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Professional Registration

After receiving the professional degree, a graduate may fulfil additional requirements for professional registration, including a period of post-graduate practical experience and the completion of registration examinations. In Canada, these additional requirements are determined by provincial organizations that are empowered to register an individual for professional practice. An American citizen who graduates from the School's MArch program is qualified to become an architectural intern in the United States and to complete the examination for professional registration there. Applicants from other countries are advised to contact their national architectural organization about requirements for professional registration.

Undergraduate Degree Programme

Bachelor of Environmental Design Studies

BEDS is a two-year, full-time, pre-professional program for a student who has already completed at least two years of general studies in subjects other than architecture. It consists of four academic terms in residence and a four-month work term. The BEDS degree recognizes a student's successful completion of a minimum of four years of university study, including two at the School of Architecture.

The BEDS program consists primarily of required classes in Design, Humanities, Technology, Representation, and Professional Practice. These classes provide a base of academic knowledge and design skill from which a student may proceed to a graduate program. The BEDS program leads to the MArch program, as well as to the Faculty's other graduate programs in Environmental Design Studies and Planning. A BEDS graduate may also choose to continue into another related field in design, environmental studies, management, etc., at Dalhousie or elsewhere.

Graduate Degree Program

Master of Architecture

Master of Architecture is a two-year, full-time program consisting of four academic terms in residence and an eight-month work term. It includes required classes that complete the core requirements for the School's professional degree program. Elective classes also enable a student to focus on a particular area of study such as housing, urban design, history and theory, building technology, environmental design, or computer applications. In the final year each student works on a design thesis, supervised by a faculty member.

3.3.2 Admission Brochures

The School has three admission brochures, available in print and on the website:

- Future Prospects in Architecture (for high school students) (<http://tinyurl.com/nw9hd5f>)
- Professional Architecture Program (for prospective BEDS students) (<http://tinyurl.com/nbptqfh>)
- Frequently Asked Questions (for prospective BEDS students) (<http://tinyurl.com/payrv5f>)

3.3.3 School of Architecture Website

The headings below indicate the range of information on the School of Architecture website at <http://archplan.dal.ca/architecture/index.shtml>. The major descriptions of the program appear on the three first three pages under "Prospective Students."

Prospective Students	Current Students	Employers and Visitors
Architecture at Dalhousie	Community of scholars	Dalhousie Architectural Press
Architecture program	2014-15 dates	Tuns Press publications
BEDS / MArch courses	Registration	StudioEast
Co-op work terms	Building access	Exhibitions
Undergrad admission info	Communicating	Design-build labs
Admission requirements	School procedures	Lectures and events
Undergraduate application	Academic regulations	Information for employers
Transfer students	Course outlines	Student portfolios
Fees and expenses	Work term information	Alumni portfolios
Architecture as a career	Employment	Employment for alumni
FAQ	Grades and appeals	Professional organizations
Graduate programs	BEDS - Years 3 and 4	BCBD in The Gambia
MEDS Design-Build	Year-end reviews	IYIP in The Gambia
Open courses	Graduate studies	Faculty research
Tour of the building	MArch - Year 5	Faculty positions available
History of the school	MArch - Year 6	
Student projects	Exchange programs	
Campus maps	Writing	
Accommodation	Representation	
Dalhousie links	Scholarships	
Halifax links	DASA	
	Studio	
	Exhibition Room	
	Resource Centre	
	Images and GIS	
	Sexton Library	
	Photocopying	
	Computer labs	
	Computer printing	
	Work safety	
	AV and photography	
	Woodworking shop	
	Local suppliers	
	More Dalhousie links	
	Halifax universities	
	Architecture schools	
	Organizations	
	Lectures, web links	
	Libraries, bookstores	
	Competitions, awards	

3.3.4 Memo Accompanying "2012 Guide to Student Performance Criteria"

The following e-mail message was sent to all students in the professional architecture program.

Friday, November 29, 2013 2:26 PM

To all BEDS and MArch students,

Attached is a document, "Guide to Student Performance Criteria," from the Canadian Architectural Certification Board. It is accompanied by the following statement from the CACB:

=====

This guide is written expressly for the faculty and students of professional degree program in architecture. It begins with a brief overview of the parameters for accrediting professional degree programs, including a list of the twelve conditions that your programme must address to maintain its accreditation.

However, the guide's primary purpose is to inform you about one of these conditions, namely the Student Performance Criteria. These are areas where every student, who graduates from an accredited architecture program, must demonstrate the required level of accomplishment. The criteria define the minimum requirements for your professional education in architecture.

=====

As you know, the School is gathering student work throughout the 2013-14 year as part of our preparations for the CACB's accreditation visit in early 2015. Graduating from an accredited program enables your architectural education to be certified automatically. This is a major step toward professional architectural registration.

The following e-mail message was sent to all faculty members in the School of Architecture.

Saturday, February 8, 2014 8:58 PM

Architecture faculty,

One of the requirements for accreditation is that the School distribute the CACB's most recent "Guide to Student Performance Criteria" to all faculty. Here's your copy. It describes the accreditation process, including the new set of 31 student performance criteria (formerly 37), now grouped into four sections.

In case you're interested, the 2012 CACB "Conditions and Terms for Accreditation" is also posted on the CACB website. It describes the accreditation process in more detail, including the preparation of the Architecture Program Report.

3.4 Social Equity

3.4.1 Provincial Policy on Social Equity

The Nova Scotia Human Rights Act (revised 2012) prohibits discrimination based on age; race; colour; religion; creed; sex; sexual orientation, gender identity, or gender expression; physical disability or mental disability; an irrational fear of contracting an illness or disease; ethnic, national or aboriginal origin; family status; marital status; source of income; political belief, affiliation or activity; that individual's association with another individual or class of individuals having characteristics referred to in the clauses above (<http://tinyurl.com/o9o2tyh>, 4–5).

3.4.2 University Policies on Social Equity

The university's policy on discrimination follows the federal Employment Equity Act (<http://laws-lois.justice.gc.ca/eng/acts/e-5.401/>) and the provincial Human Rights Act. It is described in the Statement on Prohibited Discrimination (<http://tinyurl.com/mt3k7oy>), which covers both students and employees.

The university's policy on employment equity is described in the Employment Equity Through Affirmative Action policy (1989) (<http://tinyurl.com/n9g34c7>) and the collective agreement with the Dalhousie Faculty Association (<http://tinyurl.com/ocwbqhg>). The affirmative action policy is intended to advance certain designated groups (racially visible persons, aboriginal persons, persons with a disability, and women) through recruitment, hiring, training, and promotion.

Equity in Faculty Progress

Collective Agreement

The following are excerpts on discrimination and affirmative action from "A Collective Agreement between the Board of Governors of Dalhousie University and the Dalhousie University Faculty Association, 2011-2014":

Article 4: No Discrimination

4.01 (a) The Parties agree that there shall be no discrimination or favouritism (except as may be provided for elsewhere in this Collective Agreement) exercised or practised with regard to any Member in regard to salary, rank, appointment, reappointment, promotion, tenure, continuing appointment or appointment without term, sabbatical or other leave, benefits, dismissal or any other terms and conditions of employment by reason of race, creed, colour, ancestry, national origin, place of birth, citizenship (except insofar as citizenship may be a criterion for initial appointment), political or religious affiliation or belief, sex, sexual orientation, marital status, family relationship, personal lifestyle, membership or non-membership in the Association, activity or non-activity on behalf of the Board or the Association, age, language (if the language is adequate to carry out required duties), criminal record prior to employment at Dalhousie University (providing such a record has not been misrepresented by the Member), or handicap or disability (providing the handicap or disability does not preclude the Member's carrying out required duties). The correction of inequities, the implementation of affirmative action programmes, or spousal appointment provisions, as may be agreed between the Parties, shall not constitute discrimination.

(b) The Parties agree they are committed to a working and learning environment that is free from personal harassment.

4.02 The Parties are committed to the goal of increasing the proportion of designated group members among those holding academic appointments at Dalhousie University and have incorporated Clause 14.01 to that end. The Board will endeavour to collect information on the numbers and proportions of designated group member candidates and other candidates for academic appointments and the numbers and proportions of designated group members and

others appointed. The President shall report this information annually to the Association and to the Senate.

4.03 The Parties agree that, in keeping with the commitment to increase the proportion of designated group members among those holding academic appointments at Dalhousie University, where possible, Members of the designated group shall be nominated to, or asked to serve on, appointment, promotion and tenure committees.

Article 14: Appointments and Reappointments

14.01 (a) The Parties agree that it is appropriate that positive initiatives be taken to increase the proportion of designated group members among those holding academic appointments at Dalhousie University, particularly full-time and regular part-time appointments, and that procedures be adopted to monitor and report on progress toward this objective; therefore, the following policy is adopted at Dalhousie University. Where non-designated group member candidates who are eligible for appointment have qualifications and experience judged not to be substantially better suited for the appointment than those of a designated group member candidate, the designated group member candidate is to be selected. This policy does not apply in respect of women (not otherwise designated group members) in those departments, schools and other such units wherein the proportion of women Members already exceeds one-half.

(b) The Dean of the relevant Faculty, or Vice-President where there is no relevant Faculty, is responsible for ensuring that appropriate steps are taken by departments, schools and other such units to encourage applications for available positions from qualified designated group member candidates to attain the policy objective of increasing the proportion of designated group member academics. These steps shall include the submission of the standard form to the President's Office. A copy of the completed form with the names or other identifying features of candidates deleted shall be provided to the Association on a confidential basis in accordance with Clause 7.07. Except in a case where a limited-term appointment must be made on short notice, the form will be provided when an appointment is recommended to the Board.

Office of Human Rights, Equity, and Harassment Prevention

The university's Employment Equity through Affirmative Action policy includes three components:

- removing discriminatory barriers to employment and promotion
- introducing positive policies and practices and establishing goals and timetables to work towards achieving employment equity by increasing designated group members through recruitment, hiring, training, and promotion
- improving participation of designated group members at all levels of the University through hiring, training, and promotion

The Policy seeks affirmative action in all aspects of employment for the following groups:

- racially visible persons (especially people of black African descent indigenous to Nova Scotia)
- aboriginal persons (especially people of Mi'kmaq descent)
- persons with a disability
- women

Academic appointments are guided by the following principles:

- Hiring units should use their best efforts to attract qualified applicants from all designated groups.
- Preference will be given to candidates from designated groups unless other candidates are substantially better qualified.
- Where candidates from more than one designated group are qualified for a position, the less well-represented designated group in the unit will be given preference unless the other candidate(s) are substantially better qualified.

To ensure that the policy is implemented, the university's Office of Human Rights, Equity, and Harassment Prevention oversees the four stages of academic recruitment:

- Request for Career Stream Position
- Beginning the Search Process
- Before the Interviews
- Approval and Offer

It checks that the search committee includes a diverse membership. It ensures that the faculty position is advertised in locations that emphasize designated groups. It checks that the following statement is included in the advertisement:

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. Dalhousie University is an Employment Equity / Affirmative Action employer. We encourage applications from qualified Aboriginal people, persons with a disability, racially visible persons, and women.

It ensures that a self-identification questionnaire was provided to all applicants, so that members of a designated group can be identified. It checks that qualified members of designated groups were properly considered at the short-listing stage and the appointment stage.

Equity in Student Progress

Calendar

The following paragraph appears at the beginning of the "Admission Requirements" section in the 2014–2015 undergraduate calendar:

Dalhousie University is an affirmative action and equal opportunity educational institution. Students who are Aboriginal, Black/persons of African descent, or persons with a disability and do not meet the normal admission requirements may choose to self-identify and request special consideration.

Statement on Prohibited Discrimination

The following is an excerpt from the university's Statement on Prohibited Discrimination (1999; revised 2009) (<http://tinyurl.com/mt3k7oy>).

Dalhousie University is committed to safeguarding its students and employees against all forms of prohibited discrimination in the course of work or study or participation in University-sponsored organizations, activities and programs. The University operates in accordance with the Nova Scotia Human Rights Act. The Act prohibits discrimination in certain activities including the provision of or access to services and facilities, accommodation, publications and employment. Discrimination is defined as making "a distinction, whether intentional or not, based on a characteristic, or perceived characteristic ... that has the effect of imposing burdens, obligations or disadvantages on an individual or class of individuals not imposed upon others or which withholds or limits access to opportunities, benefits and advantages available to other individuals or classes of individuals in society."

Accommodation

The university's Office of Human Rights, Equity, and Harassment Prevention oversees additional university policies associated with accommodation and assesses requests for accommodation from employees and students. The accommodation policy is described at <http://tinyurl.com/ktfxpc5>.

3.4.3 Faculty and School Policies on Social Equity

The Faculty of Architecture and Planning and the School of Architecture have no additional policies on social equity. We rely on the university policies that apply to faculty progress and student progress. The Dean of the Faculty of Architecture and Planning and the Director of the School of Architecture are responsible for ensuring that the university policies are implemented.

3.5 Human Resources

3.5.1 Students

Educational Backgrounds of Students

Students need two years of university for admission to the BEDS program. On average, incoming students have completed 3.6 years. 46% of them already have a university degree. The diversity of their backgrounds provides breadth to the BEDS program.

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	average
previous university years	3.6	3.6	3.5	3.4	3.3	4.4	3.6
previous degrees	52%	39%	46%	46%	41%	52%	46%
BA	11	3	9	7	5	5	6.6
BSc	8	7	7	5	5	6	6.3
BES / BED / BAS	0	0	1	4	1	0	0.8
BTech / BEng / BArchSci	0	0	3	1	0	0	0.6
BFA	4	3	3	2	2	1	2.5
BCD	2	0	0	0	2	2	1.0
Arch. tech. diploma	3	2	0	0	5	7	2.8
other	9	7	6	11	6	10	8.2

Regional Backgrounds of Students

Graduates from the School of Architecture come from a wider area than graduates from any other Faculty at Dalhousie University. The largest group comes from western Canada.

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	average
Western (BC, AB, SK, MB)	41%	35%	28%	41%	35%	39%	36%
Atlantic (NB, NS, PE, NL)	35%	32%	30%	36%	33%	22%	31%
Ontario	18%	26%	31%	16%	25%	24%	24%
Québec	0%	0%	3%	3%	4%	5%	3%
USA	0%	0%	7%	2%	0%	5%	3%
International	6%	7%	2%	2%	4%	5%	4%

Gender Balance of Students

Among incoming BEDS students, the gender balance is 54% male and 46% female. With the numbers roughly equal, affirmative action has not been needed to increase the proportion of female students. Their applications are assessed on the same academic basis as male students.

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	average
male	49%	51%	61%	56%	49%	60%	54%
female	51%	49%	39%	44%	51%	40%	46%

Selectivity and Retention of Students

On average, 23% of applicants are admitted into the BEDS program. 63.5% of those students complete the MArch program.

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	average
all applications	228	246	335	335	304	280	288
new enrolment, including advanced *	68	61	61	65	61	65	63.5
selectivity	30%	25%	18%	19%	20%	23%	23%
MArch graduates	31	49	38	37	40	36	38.5
B1 students four years earlier	56	65	56	57	68	61	60.5
four-year retention	55%	75%	68%	65%	59%	59%	63.5%

* New enrolment includes transfer students who enter the professional program at an advanced level (B2, B3, B5, or M1).

Time to Graduation

57% of MArch graduates complete the BEDS/MArch program in the minimum length of time (four years). 92% complete the program within five years. (Transfer students are not counted in these statistics.)

	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	average
4 years	75%	59%	35%	44%	61%	67%	57%
5 years	25%	32%	57%	39%	32%	22%	33%
6 years	0%	9%	6%	15%	4%	11%	7%
7 years	0%	3%	3%	2%	0%	0%	1%
8 years +	0%	0%	0%	0%	3%	0%	0.5%

3.5.2 Faculty Members

Faculty Arrivals and Departures

Since 2008 there have been seven arrivals: three full-time tenured or tenure-track professors (100% FTE), one limited-term Assistant Professor (50%), and three Assistant Professors of Practice (33% FTE). There have been seven departures: one retirement, one termination following a denial of tenure, one limited-term ending, and four resignations.

Faculty member	Level	FTE	Arrival	Departure
Diogo Burnay	Associate Prof.	100%	appointed in 2012	
Robert Collins	Assistant Prof.	50%	appointed in 2011	limited-term appointment ended in 2013
Susan Fitzgerald	Prof. of Practice	33%	appointed in 2013	
Terrance Galvin	Associate Prof.	100%		resigned in 2009
Roland Hudson	Assistant Prof.	100%	appointed in 2010	resigned in 2013
Susan Molesky	Associate Prof.	100%		terminated in 2013

Elisa Navarro Morales	Assistant Prof.	100%	appointed in 2012	resigned in 2013
Peter Sassenroth	Associate Prof.	100%		resigned in 2008
Talbot Sweetapple	Prof. of Practice	33%	appointed in 2013	
Cristina Verissimo	Prof. of Practice	33%	appointed in 2013	
Grant Wanzel	Prof.	100%		retired in 2010

In 2013–14 the School of Architecture conducted searches for two new tenure-track Assistant Professors (100% FTE) to replace the two 2013 resignations. These appointments will begin during the 2014–15 academic year.

Current Faculty Members

The School of Architecture has 20 faculty members. Thirteen are tenured and two are tenure-stream. Twelve are full-time, seven are part-time, and one is on secondment. Two faculty members who resigned during the 2013–14 academic year (Roly Hudson and Elisa Navarro Morales) are included here, as their replacements have not yet been appointed. The total FTE for all faculty is 15.25. In 2008 it was 13.8.

Gender balance of faculty members in the School of Architecture has remained approximately the same. In 2008, women comprised 29% of faculty members (4.0 of 13.8 FTE). This has increased slightly to 31% (4.66 of 15.25 FTE).

A typical full-time appointment consists of 40% teaching, 40% research, and 20% administration. A typical half-time appointment is scaled down proportionately. Other variations reflect teaching release for administration, special appointments (Professor of Practice or limited-term), or technical positions.

Faculty members teach in two of the three terms, with the third term reserved for scholarly work and some continuing administration and course preparation. Their annual teaching terms are spread throughout the year to support the program's trimester sequence.

	FTE	tenure	teach	research	admin	2013-14 teaching terms		
Sarah Bonnemaison	1	tenure	40%	40%	20%	fall	winter	
Diogo Burnay *	1	tenure	20%	20%	60%		winter	summer
Ted Cavanagh	1	tenure	40%	40%	20%		winter	summer
Susan Fitzgerald	0.33		20%	0%	10%	fall	winter	
Roly Hudson	1	tenure-stream	40%	40%	20%	fall	winter	
Emanuel Jannasch **	0.5		30%	0%	20%	fall	winter	
Patrick Kelly ***	1		30%	0%	20%	fall	winter	
Richard Kroeker	1	tenure	40%	40%	20%		winter	summer
Brian Lilley	1	tenure	40%	40%	20%	fall		summer
Brian MacKay-Lyons	0.5	tenure	20%	20%	10%	fall	winter	
Christine Macy *	1	tenure	10%	10%	80%	fall	winter	
(Steven Mannell) ****	(0)	(tenure)				(leave)	(leave)	(leave)
Roger Mullin	1	tenure	40%	40%	20%		winter	summer
Elisa Navarro Morales	1	tenure-stream	40%	40%	20%	fall		summer
Stephen Parcell *	1	tenure	20%	20%	60%	fall	winter	
Austin Parsons	0.5	tenure	20%	20%	10%	fall		summer
Niall Savage	0.75	tenure	30%	30%	15%	fall	winter	

Talbot Sweetapple	0.33		20%	0%	10%		winter	summer
Catherine Venart	1	tenure	40%	40%	20%	fall	winter	
Cristina Verissimo	0.33		20%	0%	10%	fall	winter	
total	15.25							

- * Three faculty members receive teaching release due to their administrative positions: Diogo Burnay (Director of the School), Christine Macy (Dean of the Faculty), and Stephen Parcell (Undergraduate / Graduate Coordinator).
- ** Emanuel Jannasch is a Faculty technician (50% FTE) and a Senior Instructor in the School of Architecture (50% FTE).
- *** Patrick Kelly is the Faculty's Technical Coordinator (70% FTE) and a Lecturer in the School of Architecture (30% FTE).
- **** Steven Mannell has been on secondment from 2009 to 2014 to serve as Director of the university's College of Sustainability, and will continue in this position until 2020.

3.5.3 Adjuncts

Adjunct Instructors

Courses at all levels in the program are staffed with full-time faculty members whenever possible. Adjunct instructors generally teach required or core courses alongside faculty members or teach graduate core courses and electives in specialized subjects. The chart below lists the adjunct instructors in the BEDS/MARCh program in 2013–14.

Adjunct	Load *	FTE *	Teaching terms			Level and Course/Stream
Jennifer Esposito	12	0.22		winter		B2 Design
Omar Gandhi	10	0.18			summer	B3 Design
Danny Goodz	12	0.22	fall		summer	M1, M2 Facades
Peter Henry	10	0.18			summer	B3 Design
Rayleen Hill	10	0.18			summer	B3 Design
Stacey Hughes	1	0.02			summer	M1 Humanities Seminar
Ken Kam	28	0.51	fall	winter	summer	B1, B3, M5, M6 Representation
Leon Katsepontes	16	0.29	fall		summer	B1, B3 Representation
Ramzi Kavar	6	0.11			summer	M1 International Development
Elizabeth Loeffler	12	0.22			summer	B3 History
Darrell MacDonald	1	0.02			summer	M1 Humanities Seminar
Jonathan Mandeville	10	0.18	fall			M5 Thesis Preparation / BSI
Benjie Nycum	14	0.25	fall	winter	summer	B3, B5 & M6 Practice, B4 Work Term
Doug Pitcairn	2	0.04			summer	B3 BSI
Jeffrey Reed	12	0.22	fall		summer	M1, M2 Theory of Conservation Practice
Kevin Reid	6	0.11			summer	B3 BSI
Terrence Smith-Lamothe	1	0.02			summer	M1 Humanities Seminar
Grant Wanzel	24	0.44	fall	winter		M2 Design, M2 Housing Theory, M6 Real Estate Development
Total	187	3.41				

- * Loads are calculated in the School's workload units. An FTE is based on the average teaching load of a full-time faculty member: 55 workload units per year. Standardizing the units enables the adjunct FTEs to be added to the faculty FTEs to arrive at a total FTE for teaching.

Adjuncts (Faculty of Graduate Studies): MArch Thesis Examiners

This is an individual who is appointed for a three- or five-year term by the Faculty of Graduate Studies to serve as a recurring external examiner for master's theses. The School of Architecture currently has six. Their role is to review the final thesis work of individual students and to monitor the strengths and directions of the thesis work over an extended period.

Adjunct (FGS)	Affiliation	Role
Carol Burns	Taylor and Burns Architects, Boston	MArch thesis examiner
Brian Carter	State University of New York at Buffalo	MArch thesis examiner
Andrea Kahn	Columbia University, New York	MArch thesis examiner
Janna Levitt	LGA Partners, Toronto	MArch thesis examiner
Peter Sassenroth	Fachhochschule Bielefeld, Germany	MArch thesis examiner
Geoffrey Thün	University of Michigan	MArch thesis examiner

Adjuncts (Faculty of Graduate Studies): Graduate Instructors

This is an individual who is appointed for a three- or five-year term by the Faculty of Graduate Studies to teach a recurring graduate course. The School of Architecture has six:

Adjunct (FGS)	Affiliation	Role
Danny Goodz	private practice	Recurring instructor (grad)
Ken Kam	Dalhousie University	Recurring instructor (grad)
Ramzi Kavar	Housing Nova Scotia; private practice	Recurring instructor (grad)
Jonathan Mandeville	Fowler, Bauld and Mitchell Architects	Recurring instructor (grad)
Jeffrey Reed	NS government (conservation)	Recurring instructor (grad)
Kim Thompson	Ship Harbour Projects	Recurring instructor (grad)

Adjuncts (Scholar)

This is an individual who is appointed for a term by the Faculty of Graduate Studies to teach one graduate course or to serve as an advisor for one thesis student.

BEDS External Examiners

While not officially an Adjunct at the university, this position is an undergraduate equivalent to an MArch thesis examiner. He/she serves as an external examiner at the Year 3 and Year 4 reviews at the end of the BEDS academic year in April. He/she joins a committee of faculty members and a student representative for two full days to review BEDS design portfolios and grades and to participate in decisions on promotion and graduation. The year-end reviewer also submits a written report to the School on the strengths, weaknesses, and directions of the student work in the BEDS program during that year. Since 2008, the BEDS examiners have been:

Year	BEDS External Examiner	Affiliation
2009	Leslie Van Duzer	University of Minnesota
2010	Pablo Molestina	FH Düsseldorf
2011	Diogo Burnay	Technical University of Lisbon
2012	Nat Chard	University of Manitoba
2013	Nat Chard	University of Brighton
2014	Nat Chard	University of Brighton

3.5.4 Number of Instructors

	Head Count	FTE
Faculty members *	19	15.25
Adjuncts **	18	3.41
Total	37	18.66

* For calculations, see 3.5.2.

** For calculations, see 3.5.3.

Student / Instructor Ratio in Design Courses

In Design courses in 2013–14, the ratio of students to instructors was 8.6 : 1. Design courses include seven hours of contact time per week and expect each student to spend a total of 18 hours per week on design.

Course	Term	Design students	Design instructors	Design students per instructor
B1 Design	fall	63	5	12.6
B2 Design	winter	60	5	12.0
B3 Design	summer	60	5	12.0
B5 Design	winter	57	5	11.4
M1 Design	summer	41	4	10.3
M2 Design	fall	36	3	12.0
M5 Thesis Prep.	fall	34	6	5.7
M6 Thesis	winter	34	12	2.8
Total		385	45	8.6

3.5.5 Instructor Evaluations

Near the end of each term, students assess the performance of their instructors, using the university's online survey, Student Ratings of Instruction (SRI). The questions are the same for all courses in the university. They are answered on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. Stimulation of learning

The instructor conducted the class/clinical in such a way that I was stimulated to learn.

2. Organization

The instructor organized the class/ clinical well.

3. Communication

The instructor communicated clearly during the class/clinical.

4. Enthusiasm

The instructor showed enthusiasm for the subject matter of the class/clinical.

5. Fairness

The instructor used fair evaluation methods to determine grades.

6. Feedback

The instructor provided constructive feedback (considering the class/clinical size).

7. Concern for learning

The instructor showed genuine concern for my learning.

8. Overall teaching effectiveness:

Overall, the instructor was an effective teacher.

The School of Architecture asks five additional questions about the course:

11. The course is fully described in the course outline.
12. The course has relevant, well-designed assignments.
13. The course has a reasonable workload (not too heavy for its credit weight).
14. The course is appropriately challenging (not too easy at this level in the program).
15. The course is a valuable part of the curriculum.

An instructor also can add five questions that are specific to the course: what worked well, what didn't work well, etc.

The information that students provide is anonymous and will not affect their grade. A summary of the responses is sent to the instructor after the final grades have been added to the student's academic record. The responses are also reviewed by the Director to monitor the curriculum and may be considered later in decisions on the instructor's career advancement, such as reappointment, tenure, and promotion.

For logistical reasons, instructors of several types of courses are not evaluated: Work Terms, Free Labs, and Thesis. Either their schedule is not compatible with the university's evaluation period or the number of respondents would be fewer than five (the university's minimum).

Unfortunately, the online SRI evaluation process that the university established several years ago has not been reliable, due to errors, omissions, and irregularities. Some of the students' responses may be useful for instructors and the Director but may not provide a solid basis for decisions on faculty career advancement.

3.5.6 Administration

A full-time faculty member normally devotes 40% to teaching (55 workload points). The Director and the Undergraduate/Graduate Coordinator have a reduced teaching load (20%; 28 workload points). The Director devotes no less than 50% of his time to program administration.

	Administrative Position	Teaching	Research	Admin
Christine Macy	Dean, Faculty of Architecture and Planning	10%	20%	70%
Diogo Burnay	Director, School of Architecture	20%	20%	60%
Stephen Parcell	Undergraduate and Graduate Coordinator	20%	20%	60%

These percentages are somewhat idealized. A typical work week is much more than forty hours. Fitting research into a trimester year that runs continuously from early September to early August is difficult. As the smallest Faculty in Dalhousie University, our administrative responsibilities at the university level are also proportionately larger.

Dean

(Christine Macy)

Christine Macy has served as Dean of the Faculty of Architecture and Planning since 2008. Her first five-year term (2008–13) was renewed for a second five years (2013–18).

Director

(Diogo Burnay)

The School of Architecture has had three directors since the last APR. Terrance Galvin resigned his faculty position at Dalhousie for personal reasons in 2009. Richard Kroeker then served as Acting Director in 2010–11. Following an external search, Diogo Burnay was appointed in January 2012 to a five-year term as Director. He was also appointed Associate Professor with tenure.

The following chart compares the primary responsibilities of the Dean and the Director:

Dean of the Faculty	Director of the School
Academic leadership of the Faculty <ul style="list-style-type: none"> • develop strategic plan for the Faculty • manage Senate and University reviews • support research within the Faculty Administrative leadership of the Faculty <ul style="list-style-type: none"> • oversee administrative activities • manage Faculty finances and resources • manage Faculty physical resources • develop Faculty policies • represent the Faculty Faculty and staff development in the Faculty <ul style="list-style-type: none"> • conduct annual career reviews for faculty • manage recruitment/appointment processes Student relations in the Faculty Outreach and development for the Faculty <ul style="list-style-type: none"> • engage and involve alumni • steward prospects and donors 	Academic leadership of the School <ul style="list-style-type: none"> • develop academic plan for the School • manage accreditation and program reviews Administrative leadership of the School <ul style="list-style-type: none"> • lead program administration • manage School finances and resources • determine staffing arrangements • develop School policies • represent the School Faculty and staff development in the School <ul style="list-style-type: none"> • oversee teaching effectiveness • initiate searches for faculty appointments Student relations in the School Outreach and development for the School <ul style="list-style-type: none"> • liaise with the profession

Undergraduate and Graduate Coordinator (Stephen Parcell)

This dual position is responsible for monitoring policies and procedures in the School of Architecture: advising prospective students; administering undergraduate, transfer, and graduate admissions; monitoring tuition fees; assessing transfer credits; organizing studio spaces; advising current students; organizing promotion reviews; advising office staff and instructors; updating academic regulations and guidelines; monitoring faculty teaching loads; updating university calendars and admission information; updating Faculty and School websites; providing School information to external organizations and publications; assembling APRs; organizing and monitoring the Faculty's student database; preparing annual schedules and term timetables; coordinating upcoming terms and courses; organizing graduate course selection; monitoring student exchanges; monitoring grade submission; monitoring medical extensions; organizing appeals; administering awards and bursaries; and organizing student competition entries.

The Graduate Coordinator also serves as a liaison with the Faculty of Graduate Studies and is responsible for administering graduate admission and registration; monitoring graduate student progress; overseeing the School's graduate curriculum; and administering graduate scholarship funding.

He typically serves as Acting Director in the Director's absence. He also represents the Faculty on the university's Associate Deans Academic Council.

3.5.7 Staff Members

The administrative staff, office staff, and technical staff report to the Dean of the Faculty of Architecture and Planning, who is responsible for all Faculty facilities and staff members. The number of staff members is sufficient to operate these facilities. The Managing Editor of Dalhousie Architectural Press (formerly Tuns Press), Donald Westin, retired in 2014; a replacement has not yet been appointed. Since 2008, the Faculty has added an Alumni Engagement Officer, Anne Swan; this position is shared with the Faculty of Engineering.

Category	Staff Member	Position	FTE
Administrator	Martha Barnstead	Administrative Secretary to the Dean	100%
Administrator	Paula Costello	Director of Career and Community Services / Co-op Coordinator	100%
Administrator	Eric Guile	Financial Administrative Officer	100%
Administrator	Anne Swan	Alumni Engagement Officer	60%
Staff	Dale Arsenault	Supervisor of Modeling Shop / Technician	100%
Staff	Emanuel Jannasch	Supervisor of Manual and Digital Craft and Fabrication	50%
Staff	Ken Kam	Supervisor of Print Shop / Photo Studio	100%
Staff	Patrick Kelly	Director of Computer Facilities	70%
Staff	Susanna Morash-Kent	Undergraduate Administrative Secretary	100%
Staff	Bev Nightingale	Graduate Administrative Secretary	100%
Staff	Anita Regan	Visual Median Librarian	100%
Staff	TBA	Manager of Dalhousie Architectural Press	100%
Staff	JoAnne Woodworth	Administrative Secretary for Career and Community Services	50%

Administrator: Administrative Secretary to the Dean

(Martha Barnstead)

The ASD provides administrative and secretarial support to the Dean. She manages the daily operations of the Faculty office, including initiating and maintaining office administration procedures, compiling staff vacation/absence records, coordinating appointment and payroll documentation for adjuncts and student assistants, and maintaining confidential paper files for all faculty and staff. She also monitors matters involving spaces in the building, building maintenance, equipment, resources, and travel and accommodation for visitors. She supports Faculty and School committees, undertakes special projects, organizes events, and shares reception duties with the School of Architecture's two full-time secretaries. She reports to the Dean.

Administrator: Director of Career and Community Services / Co-op Coordinator

(Paula Costello)

The DCCS directs the development and delivery of career services for students who aspire to membership in the profession of architecture or planning. With the School's Professional Practice Group, she coordinates all aspects of the students' co-op work terms and assists alumni with employment. She also contributes to the preparation and instruction of professional practice and continuing education courses. The DCCS is the liaison for the Schools and the Faculty with alumni, employers of our students, and prospective employers. She also represents the Faculty on university committees and meets with external communities on careers in architecture and planning. She reports to the Dean.

Administrator: Financial Administrative Officer

(Eric Guile)

The FAO provides support in financial planning and management to the Dean of the Faculty of Architecture and Planning, the Director of the School of Architecture, and the Director of the School of Planning. The FAO also assists with financial administration for faculty, staff, and

students. Under the direction of the Dean and in consultation with others, the FAO develops the annual budget for the Faculty, monitors financial statements, advises on financial aspects of special projects, provides financial reports to the University, and advises the Dean on the optimal use of financial resources. The FAO also assists with matters involving space and facilities. He reports to the Dean.

Administrator: Alumni Engagement Officer

(Anne Swan)

The AEO fosters mutual benefit between the Faculty of Architecture of Planning and its alumni and friends, to help the Faculty pursue parts of its strategic plan. She encourages alumni to support the Faculty by volunteering, offering counsel, employing students in co-op placements, and providing financial support for scholarships and special events. She works closely with the Dean, in collaboration with the central Alumni Office in the university's Office of External Relations. The AEO develops, delivers, measures, and evaluates Faculty alumni and donor initiatives. She reports to the Dean.

Staff: Supervisor of Modeling Shop / Technician

(Dale Arsenault)

The SMS is responsible for administering and operating the Modeling Shop and adapting shop operations to curricular requirements. The shop has two functions: training undergraduate students in model-making principles and construction skills in various media; and supporting faculty and graduate students in design and research activities, including prototyping and performance testing. The SMS works with individual students, interpreting particular design concepts to determine appropriate materials and methods. He assesses the skill level of each student in order to supervise, guide, and monitor safety practices and techniques.

Staff: Supervisor of Manual and Digital Craft and Fabrication

(Emanuel Jannasch)

The SMDCF performs teaching and administrative duties related to the Faculty's fabrication workshops. He deals with digital design and fabrication technology, managing the CNC, laser cutter, and wet labs. He also coordinates these labs with the Faculty's Modeling Shop, spray room, and photo studio, and with the technicians who are responsible for those facilities. For these duties, he reports to the Dean. As a Senior Instructor, he teaches technology courses and participates in the development of the School's academic programs. He works directly with faculty members, other instructors, and undergraduate and graduate students. For these duties, he reports to the Director of the School of Architecture.

Staff: Supervisor of Print Shop and Photo Studio

(Ken Kam)

The SPSPS provides technical support for the Faculty's print shop, photo studio, and computer facilities. He also serves as the Faculty's photographer. He assists students with photographic assignments, printing assignments, and documentation of their architectural work. He instructs new students on photographic techniques and maintenance; produces visual presentations for course-related activities; researches digital photographic equipment, recommends equipment purchases, and performs routine maintenance of equipment. He reports jointly to the Director of Computer Facilities and the Dean.

Staff: Director of Computer Facilities

(Patrick Kelly)

The DCF determines the computer support that each faculty member needs for the curriculum and research work; provides technical and software support to faculty, staff and students; plans

for major computer equipment purchases; oversees hardware and software acquisition and implementation; acts as the liaison between the Faculty and ITS on the operation of UCIS-supported computer labs and implementation of ITS policies; and supervises the security alarm system. He coordinates all technical staff members. He reports to the Dean. As a 30%-FTE faculty member, he teaches a humanities elective and a representation elective. For these duties, he reports to the Director of the School of Architecture.

Staff: Undergraduate Administrative Secretary to Director, School of Architecture
(Susanna Morash-Kent)

The UAS provides administrative secretarial support to the Director, Undergraduate Coordinator, and faculty members; coordinates BEDS and transfer applications; advises prospective undergraduate students, current students, and the public; maintains undergraduate records in the student database; maintains undergraduate student files; coordinates undergraduate grades; provides secretarial support for BEDS admissions, scholarships, promotions, and appeals; prepares documentation for meetings and records minutes; and coordinates the course evaluation process. With other staff, she assists with preparations for alumni, professional, and community events; provides secretarial support to faculty members; and performs reception duties and general office duties for the School of Architecture. She acts as a liaison with the Registrar's Office and several university committees. She reports to the Director.

Staff: Graduate Administrative Secretary to Director, School of Architecture
(Beverly Nightingale)

The GAS provides administrative secretarial support to the Director, Graduate Coordinator, and faculty members; coordinates graduate applications; communicates with prospective graduate students, current students, and the public; maintains graduate records in the student database; maintains graduate student files; coordinates graduate grades; provides secretarial support for MArch admissions, scholarships, and appeals; and prepares documentation for meetings and records minutes. With other staff, she assists with preparations for alumni, professional, and community events; provides secretarial support to faculty members; and performs reception duties and general office duties for the School of Architecture. She acts as a liaison with the Faculty of Graduate Studies and the Registrar's Office. She reports to the Director.

Staff: Visual Media Librarian
(Anita Regan)

The VML oversees the visual collections and operations of the Faculty's Resource Centre, including slides, digital images, maps, plans, aerial photographs, trade literature, codes, and standards. She advises students, faculty, and the public on access to resources; assesses potential acquisitions; catalogues materials; maintains databases; assembles web-based resources; instructs student assistants; and works in consultation with the Architecture librarian in the Sexton Design and Technology Library. She reports to the Dean.

Staff: Administrative Secretary to Career and Community Services
(JoAnne Woodworth)

The ASCCS provides clerical support for the Director of Career and Community Services and for students and employers during work terms. This includes processing applications for work terms; providing course materials and documents to students; providing information and documents to employers; assisting students with international travel; monitoring work term completion; recording student and employer information in the Faculty database; responding to inquiries; and assisting with recruitment events, career fairs, open house, and alumni and donor events. She reports to the Director of Career and Community Services.

3.6 Human Resource Development

3.6.1 Policy on Human Resource Development Opportunities

Since 2011 Dalhousie University has been one of "Canada's 100 Top Employers" for "offering exceptional working conditions and benefits" (<http://www.canadastop100.com/national/>). Service is one of the five priorities in the university's "Strategic Directions" plan (June 2014):

Catalyze the intellectual, social and economic development of our communities:

- contribute to cultural and economic vitality, locally and globally, by fostering creativity, innovation and entrepreneurship
- maximize the opportunities for students, faculty and staff to contribute to community both inside and outside of the university
- promote a culture of service and engagement among students, faculty and staff (<http://tinyurl.com/njcv7k2>)

Training Programs

Employee and Organizational Development (EOD) (<http://tinyurl.com/mff7m7z>) offers training for administrators, support staff, and - to a lesser extent - faculty. It offers a wide range of learning, consulting, planning, and facilitation services. EOD also can address specialized departmental needs when enough people need training. This service is provided on an assessed cost basis.

Tuition Assistance Program

This EOD program (<http://tinyurl.com/pt4xjm7>) encourages learning and professional development for faculty and staff who are members of an employees' union at the university, as well as their spouses and children. Tuition assistance is available in the form of a waiver for Dalhousie courses or reimbursement for non-Dalhousie courses.

Consulting Services

This EOD program (<http://tinyurl.com/osg2sog>) relies on its staff or more specialized external consultants to provide assistance with:

- organizational development: program planning, strategic planning, retreat planning, work processes
- employee and team development: performance improvement, goal definition, customized learning
- organizational health: human relations, team effectiveness, morale, productivity, service quality

Centre for Learning and Teaching (CLT)

The Centre for Learning and Teaching (<http://www.dal.ca/dept/clt/services.html>) offers programs and consultation for faculty, new faculty, and graduate students. It can assist individuals and groups with classroom planning, program development, course design, student engagement initiatives, online learning, blended learning, audio-visual production, teaching dossiers, and teaching awards. CLT also arranges formal mentoring of junior faculty by senior faculty. Occasional workshops focus on teaching, assessment, and instructional technology. A long-standing annual conference on university teaching features a guest of national or international stature. The annual Recording Teaching Accomplishment Institute coaches faculty members - especially new faculty - on the creation and maintenance of a teaching dossier, which many Architecture professors have found very useful, especially in preparing annual reports and

applications for reappointment, tenure, and promotion. CLT programs are free or low-cost. CLT also offers modest grants to faculty members who wish to adopt instructional technologies.

3.6.2 Faculty Appointment, Reappointment, Tenure, and Promotion

Regulations on faculty appointment and advancement are specified in "A Collective Agreement Between the Board of Governors of Dalhousie University and the Dalhousie Faculty Association, 2011–2014" (<http://dfa.ns.ca/collective-agreement-2011-14>). Article 14 is on Appointments and Reappointments; Article 15 is on Tenure; and Article 16 is on Promotion. The university's basic criteria are elaborated in the Faculty of Architecture and Planning document, "Criteria and Standards for Appointment, Reappointment, Promotion to Associate Professor, and Promotion to Professor." To ensure that the complex procedures for tenure and promotion are followed, the Faculty has prepared user-friendly guidelines. Other university references include the DFA document "Under the Microscope: Tenure, Promotion, and Reappointment" (revised May 2012). All of these references and links are posted on the School of Architecture's Web for Profs (<http://tinyurl.com/p6d8vl2>; for access, the username is "shirts" and the password is "starch").

Appointment

Clause 14.09 of the Collective Agreement states:

Appointments of Members of the teaching or research staff, except for instructor Members, shall be of four kinds:

- (a) probationary tenure-track appointments
- (b) tenure-track appointments
- (c) appointments with tenure
- (d) limited-term appointments

Procedure

The university's Human Resources department provides a series of four forms to ensure that the required steps are followed during the appointment process (<http://tinyurl.com/myk5ufd>). Once the University has approved a search (Form 1A), a School of Architecture Appointments Committee is established and a search plan is prepared (Form 1B). The committee consists of three or four faculty members elected by the School of Architecture, plus a student representative elected by the Dalhousie Architecture Students Association. The School advertises the position in academic and professional publications, as well as with organizations for designated minority groups.

An architecture faculty search typically seeks a candidate with expertise in two subject areas: Design plus either Humanities, Technology, or Professional Practice. The Appointments Committee asks for a letter of intent, a CV, letters from four referees, a university self-identification questionnaire, a design/research portfolio, and samples of any teaching work. The committee recommends a short list of candidates (Form 1C) for approval by the university. Short-listed candidates first are interviewed online, then some are invited to the school for interviews, design reviews, and a public lecture. The committee's recommendation (Form 1D) is forwarded for approval by the Director, the Dean, the Provost/Vice President Academic, and finally the President, on behalf of the Board of Governors.

Following Canadian immigration requirements, the position may be advertised both nationally and internationally at the same time, but the position may be offered to a non-Canadian only if no Canadian applicants are qualified. An initial appointment at Dalhousie typically is for three years, followed by an application for reappointment.

Criteria and Standards for Appointment

The university's general criteria for appointment have been elaborated by the Faculty of Architecture and Planning. (The expected standards are shown below in brackets.)

- a) academic and professional qualifications (prerequisite):
 - post-professional degree; or
 - professional degree with high standing and one of the following:
 - university teaching experience appropriate to the position
 - experience demonstrating innovative and original contributions to the discipline
 - professional experience appropriate to the position
- b) personal integrity (prerequisite)
- c) teaching effectiveness (potential for competence)
- d) contributions to the academic discipline (potential for competence)
- e) ability and willingness to work with colleagues in the effective functioning of their academic unit (potential for competence)

Employment Equity

The University requires that a designated group candidate be selected if the qualifications and experience of non-designated group candidates are not substantially better suited for the position. Clause 14.01 in the Collective Agreement states:

14.01 (a) The Parties agree that it is appropriate that positive initiatives be taken to increase the proportion of designated group members among those holding academic appointments at Dalhousie University, particularly full-time and regular part-time appointments, and that procedures be adopted to monitor and report on progress toward this objective; therefore, the following policy is adopted at Dalhousie University. Where non-designated group member candidates who are eligible for appointment have qualifications and experience judged not to be substantially better suited for the appointment than those of a designated group member candidate, the designated group member candidate is to be selected. This policy does not apply in respect of women (not otherwise designated group members) in those departments, schools and other such units wherein the proportion of women Members already exceeds one-half.

(b) The Dean of the relevant Faculty, or Vice-President where there is no relevant Faculty, is responsible for ensuring that appropriate steps are taken by departments, schools and other such units to encourage applications for available positions from qualified designated group member candidates to attain the policy objective of increasing the proportion of designated group member academics. These steps shall include the submission of the standard form to the President's Office. A copy of the completed form with the names or other identifying features of candidates deleted shall be provided to the Association on a confidential basis in accordance with Clause 7.07. Except in a case where a limited-term appointment must be made on short notice, the form will be provided when an appointment is recommended to the Board.

Reappointment

Schedule and Procedure

Following Clause 14.15, a faculty member is considered for reappointment by the fall term of his/her third year of appointment. The School of Architecture elects a committee of four faculty members to review the candidate's record. The reappointment committee forwards its recommendation to the Director, the Dean, the Provost/Vice President Academic, and finally the President.

14.15 (a) Unless early consideration for tenure has been agreed, a probationary or probationary tenure-track appointee shall be considered for reappointment no later than the fall term of his or her third year but, with the mutual consent of the Member and the Chairperson, Head, Director, Chief Librarian or Dean, may be considered as soon as the spring term of his or her second year. The procedures used shall be those given in Clause 14.11. A decision shall be reported to the Member by 31 October of that year if there is fall consideration and 30 April if there is spring consideration. If reappointment is not offered, the reasons shall be given in writing, to the Member upon his/her request at the same time as he or she is informed of the decision not to reappoint.

Criteria and Standards for Reappointment

14.15 (a) ... Assessment of a candidate for reappointment shall be based on evidence that:

- (i) the relevant provisions of the previous appointment have been respected and fulfilled, where appropriate;
- (ii) the quality of the teaching, librarianship, research, scholarly, artistic and/or professional activity has been satisfactory. Particular strength in some characteristics may be considered to counterbalance relative lack of strength in others so that decisions taken are based on an overall assessment of performance and worth. No Member may be reappointed, however, if performance in any characteristic is less than satisfactory;
- (iii) programme and budgetary considerations have been satisfied, in accordance with the provisions of Articles 25, 26 and 27 of this Collective Agreement.

The Faculty of Architecture and Planning's additional criteria for reappointment are the same as for appointment (but with higher standards that are shown below in brackets).

- a) academic and professional qualifications (prerequisite)
- b) personal integrity (prerequisite)
- c) teaching effectiveness (competence)
- d) contributions to the academic discipline (competence)
- e) ability and willingness to work with colleagues in the effective functioning of their academic unit (competence)

Tenure

Eligibility and Academic Freedom

Full-time and part-time faculty members who belong to the Dalhousie Faculty Association are eligible for tenure. The Collective Agreement, Clause 15.01 (c), states:

An appointment with tenure is considered the ultimate safeguard of academic freedom for full-time and regular part-time Members. It constitutes a mutual undertaking, on the part of the Member, that he or she will continue to perform conscientiously the functions of a teacher and a scholar, and on the part of the University that a Member may continue to enjoy academic freedom.

University Criteria and Standards for Tenure

Clause 15.02 (a) states:

The Board of Governors will make an appointment with tenure only when it can be firmly predicted that the Member recommended will, in consequence of a demonstrated commitment to intellectual and professional activity throughout his or her career, attain and maintain a high degree of academic proficiency.

Clause 15.03 (a) states that there are five criteria for tenure:

In considering a Member for appointment with tenure, general criteria assessed by the committees and administrative officers responsible include: academic and professional qualifications, teaching effectiveness, contributions to an academic discipline, ability and willingness to work with colleagues so that the academic units concerned function effectively, and personal integrity.

Faculty Criteria and Standards for Tenure

The Faculty's basic criteria for tenure are the same as for appointment and reappointment (but the standards for tenure are higher):

- a) academic and professional qualifications (prerequisite)
- b) personal integrity (prerequisite)
- c) teaching effectiveness (promise of a high level of achievement)
- d) contributions to the academic discipline (promise of a high level of achievement)
- e) ability and willingness to work with colleagues in the effective functioning of their academic units (promise of a high level of achievement)

Procedure

A faculty member is considered for tenure automatically by the fall term of his/her fifth year of a tenure-track appointment. The Dean monitors the tenure process. The candidate's application is

assessed first by four external referees, at least half of whom are selected by the candidate. Clause 15.19 (b) states:

The Chairperson, Head, Director or Dean shall obtain written recommendations from persons outside Dalhousie University unless the Member and the Dean agree that such letters are inappropriate. Any request for a written recommendation shall include a statement of the criteria. In choosing the names of persons to be approached for recommendations, the Chairperson, Head, Director or Dean shall consult the departmental committee and the Member; at least half of the persons approached for recommendations shall be the choice of the Member. The Member and Chairperson, Head, Director or Dean shall each be entitled to comment on the suitability of the persons approached.

The application then is considered by a School of Architecture Tenure Committee (consisting of at least three elected faculty members, with recommendations sought from other faculty members), the Director of the School of Architecture, a Faculty of Architecture and Planning Tenure Committee (consisting of at least three elected faculty members, with additional recommendations sought from other faculty members), the Dean of the Faculty, the Provost/Vice President Academic, the President, and the Board of Governors. The decision is communicated to the faculty member no later than 1 September during the final year of the appointment. When tenure is granted, it takes effect from the beginning of the following academic year, typically commencing 1 July.

Promotion

University Criteria and Standards for Promotion

Clause 16.06 (a) states:

Promotion is based on evidence of achievement and accomplishment in the duties and responsibilities that constitute the faculty member's workload, and not on years of service. Whereas the standard for tenure is being able to "firmly predict" that the Member will "attain and maintain a high degree of academic proficiency," the standard for promotion is based on "positive evidence" of "actual achievement and accomplishment" in teaching, research and administrative duties and responsibilities, not on years of service.

Faculty Criteria and Standards for Promotion

As permitted by the Collective Agreement (16.06(b)), the Faculty of Architecture and Planning has developed additional criteria for promotion. They are described in the Faculty document "Criteria and Standards for Appointment, Reappointment, Promotion to Associate Professor, and Promotion to Professor." As one type of evidence of scholarly contribution, it also defines "creative work."

University Criteria and Standards for Promotion to Professor

The criteria for promotion to Professor are the same as for promotion to Associate Professor, but the standards are higher, as noted in 16.11:

Promotion to the rank of Professor shall be recommended only when solid evidence is established that the Member has attained standards of competence in both teaching and scholarship appropriate to a new full Professor and that the Member has attained and is likely to maintain a high level of effectiveness in teaching and/or scholarship and that his or her teaching or scholarship represents a significant contribution to his or her discipline or to the University.

Procedure

As noted in 16.01, a faculty member may apply for promotion in September of his/her fifth year of appointment. The Dean monitors the promotion process. The candidate's application is assessed first by four external referees, at least half of whom are selected by the candidate. (If a candidate has applied for both tenure and promotion, the same evidence is used and the same committee considers both applications.) The application is then considered by a School of Architecture Promotion Committee (four elected faculty members, with recommendations sought from other faculty members), the Director of the School of Architecture, a Faculty of

Architecture and Planning Promotion Committee (four elected faculty members, with additional recommendations sought from other faculty members), the Dean of the Faculty, the Provost/Vice President Academic, the President, and the Board of Governors. The decision is communicated to the faculty member no later than the following 31 May. When promotion is granted, it takes effect from the beginning of the following academic year.

3.6.3 Faculty Development Opportunities

In the university, scholarly work can take the form of research, creative work, or professional practice. Architecture faculty engage in four types of scholarly work: professional architectural practice at a leading level; scholarly research in aspects of the discipline framed as humanities, art, social science, or technology; research mobilized within communities; and research in teaching. Architecture faculty have been successful in obtaining Tri-Council funding from national research grant competitions such as Social Sciences and Humanities Research Council (SSHRC), Canada Foundation for Innovation (CFI-LOF), Canada Council for the Arts, and the Canadian International Development Agency (CIDA). They have also received funding from the Atlantic Innovation Fund (AIF) and various provincial agencies, as well as partner funding from industry, architectural firms, NGOs, and municipalities.

Portion of Salary Allocated to Scholarly Work

Faculty salaries are paid twelve months of the year, with teaching terms restricted to two terms (eight months) per year. According to the university's norms, faculty workload is allocated 40% for teaching, 40% for research (scholarly work), and 20% for administration. The reality in the School of Architecture is closer to 50–60% teaching, 20–30% research, and 20% administration. All faculty members are expected to do scholarly work during their non-teaching term.

Additional Supports for Research Activities

Some additional financial and managerial supports are available to assist faculty in their research activities:

University Supports

- DFA faculty members may apply for a university travel allowance to participate in conferences or similar research dissemination activities. This fund currently provides a minimum of \$900 per year for each faculty member. Faculty members may receive multiple awards if the account is not fully expended. The Faculty of Architecture and Planning also extends this support to limited-term Professors of Practice. It is awarded by the two School Directors (Architecture and Planning) as a team, on application by a faculty member.
- DFA members are entitled to an annual Professional Development Allowance of approximately \$700 for book purchases, journal subscriptions, membership in professional or learned societies, equipment purchase, conference registration, etc.
- SSHRC Research Development Fund Research Grants support research in the social sciences and humanities, up to \$3,500 for individuals and \$4,500 for two or more co-investigators from different disciplines. They are awarded by the Office of Research Services twice yearly (May and September).
- The Collective Agreement permits faculty members to apply for up to 50% of their salary to be paid in the form of a research grant.
- Dalhousie's Office of Research Services offers workshops, advising, and support in grant applications; and oversight, legal, financial and technical support in grant management.

Faculty Supports

- The Dean's Office provides supplementary funding for faculty travel, with preference given to pre-tenured faculty. It is awarded concurrently with the DFA travel allowance.
- The Dean's Office administers a number of annual alumni and special funds to support faculty outreach and exhibition activities. They are awarded throughout the year, on application by a faculty member.
- The Dean's Office has set aside a Faculty Research Development Fund of \$30,000 per year to assist newly-appointed faculty in establishing a research program, through matching funds, leveraged or targeted investments in research support. This is negotiated at the time of hiring or within the first two years of his/her appointment.
- SSHRC Research Development Fund Faculty Award supports visiting speakers (maximum \$1,000) and faculty conference travel (maximum \$1,500).

Sabbatical Leaves

As noted in the Collective Agreement (30.15–23), DFA faculty members in the professoriate may apply for a sabbatical leave after six years of service. A leave may be for a full year or a half-year and is awarded following the submission of a research plan. Salary during a sabbatical leave typically is 85% of the normal salary but one can apply to the university for a supplement. Instructors are eligible for an educational leave on similar terms. Faculty members holding limited-term appointments (including Professors of Practice) are not eligible for sabbaticals or educational leave.

Faculty member	Eligibility	Last sabbatical or administrative leave	Note
Sarah Bonnemaïson	eligible	Sept. 2010–Aug. 2011	
Diogo Burnay	eligible		eligible in 2017
Ted Cavanagh	eligible	Jan. 2007–Dec. 2008	
Susan Fitzgerald	not eligible		
Emanuel Jannasch	not eligible		
Patrick Kelly	eligible (overdue)		
Richard Kroeker	eligible	Jan. 2013–Dec. 2013	
Brian Lilley	eligible	Sept. 2009–Aug. 2010	
Brian MacKay-Lyons	eligible	Jan. 2012–June 2012	
Christine Macy	eligible	Jan. 2007–Dec. 2007	not in DFA since 2008
Steven Mannell	eligible	July 2005–June 2006	on secondment 2009–2014
Roger Mullin	eligible	Jan. 2011–Dec. 2011	
Stephen Parcell	eligible (overdue)	July 2006–June 2007	
Austin Parsons	eligible	Sept. 2010–Aug. 2011	
Niall Savage	eligible (overdue)		
Talbot Sweetapple	not eligible		
Catherine Venart	eligible	Jan. 2009–June 2009	
Cristina Verissimo	not eligible		

3.6.4 Faculty Awareness of Changes in Practice and Licensure

Half of our faculty members are licensed to practice in at least one Canadian province or American state, in the UK, or in Europe. Through their active involvement in diverse types and scales of architectural practice, including their professional association's requirements for continuing education, they remain aware of the changing demands of practice and licensure.

Some also act as mentors to students and graduates in the Intern Architect Program through the Nova Scotia Association of Architects.

The School of Architecture has had a longstanding emphasis on professional practice. In various ways, all faculty members are exposed - both directly and indirectly - to developments in practice:

- Some unlicensed faculty members work in association with licensed architects.
- Members of the profession participate in some BEDS/MArch courses.
- The School of Architecture recently appointed three new faculty members (Susan Fitzgerald, Talbot Sweetapple, and Cristina Verissimo) to a renewable, three-year 33%-FTE appointment as Assistant Professors of Practice. These positions are intended to increase awareness of leading-edge practice at the school.
- The School's annual Professional Practice Module is a week-long immersion in selected topics of professional practice for all students and faculty in the School, as well as local architects and interns. All other classes are suspended during this module. Lectures and workshops are presented by internationally recognized architects, local practitioners, faculty members, students, and related professionals (builders, cost consultants, and developers).
- The School of Architecture has a voting position on NSAA Council, while the NSAA has a voting position on the School of Architecture Committee.
- A representative from the NSAA is a member of the Dean Search Committee and the Director Search Committee.
- The criteria for faculty reappointment, tenure, and promotion include leading-edge practice as one type of evidence of scholarly accomplishment, comparable to academic research and publication.
- The School's Director of Career and Community Services, Paula Costello, regularly contacts local, national, and international architects to maintain a high-quality employer network for co-op student placements.
- After each work term, all students present their co-op placement to faculty and students.
- The Faculty has an AIA IDP coordinator to forward information on internship and licensure in North America.

3.6.5 Student Participation in Societies and Campus Activities

All architecture students are members of the Dalhousie Architecture Students Association (DASA), a recognized Dalhousie University student society. Until two years ago, this society was known as the Architecture Students Association (ASA) but added "Dalhousie" to its name to acknowledge that its mandate has expanded beyond the school and the university. DASA is funded mainly by an incidental fee paid by each student in each academic term. The DASA executive includes a president (or co-presidents), three vice presidents, three class reps, and representatives on most academic committees (Faculty of Architecture and Planning Council, School of Architecture Committee, Program Committee, four teaching groups, BEDS Admissions Committee, MArch Admissions Committee, Year 3 Review Committee, Year 4 Review Committee, and Faculty Search Committees). DASA is responsible for organizing the School's annual lecture series. It produced *StudioEast*, an annual book of student design work that was last published in 2010 (and is due to be replaced by a different type of School publication). It also hosts or participates in social events, including the annual Halifax Parade of Lights, for which students build a float (or equivalent) that typically wins a design award.

DASA has representatives in other associations beyond the School:

- Dalhousie Student Union (DSU)
- Dalhousie Association of Graduate Students (DAGS)
- Canadian Architecture Students Association (CASA)

A DASA representative typically is funded to attend the annual CASA conference. DASA is also on Facebook: <https://www.facebook.com/DalhousieASA>.

During orientation week at the beginning of the BEDS program, the Nova Scotia Association of Architects hosts an event and invites incoming students to join the NSAA as student members and to visit the NSAA office.

The School of Architecture is a closely knit community within which architecture students spend most of their waking hours. There are also some shared academic and social events in the Medjuck Building for architecture and planning students each year. They share the Sexton Campus with Engineering students but academic contacts with Engineering are minimal. The Sexton Library, athletic facilities, student residences, and campus bar (T-Room) provide more opportunities for contact. Architecture and Engineering students occasionally collaborate on design projects, such as a Parade of Lights float (2011) or Canstruction (an annual charity event for Feed Nova Scotia).

Dalhousie's larger Studley Campus, with its broader array of academic departments and university facilities, is a ten-minute walk away. Architecture students may go there occasionally for an evening lecture, to borrow a book from the Killam Library, to visit the Student Union Building, to use Dalplex athletic facilities, or to do site research for a design course. They are just as likely to walk ten minutes to one of the two main campuses of NSCAD University: downtown or on the waterfront.

3.6.6 Student Participation in Off-campus Activities

Field Trips and External Research

- Each year there are many field trips to locations within Nova Scotia.
- There have been Free Labs in other provinces (Saskatchewan, Québec, New Brunswick, Prince Edward Island, and Newfoundland and Labrador) and one this year in Portugal.
- Since 2008 there have been course-related field trips to Montreal, Toronto, Boston, New York, southeast United States, Norway, Portugal, Colombia, Botswana, and India.
- Since 2008, 32 MArch students have gone on exchange to FH Düsseldorf, University of Strathclyde, or University of Lisbon, while 14 exchange students from those schools have come to Dalhousie.
- BEDS and MArch students do their co-op work placements across Canada and around the world. Approximately 40% of MArch students typically complete their eight-month work term overseas. During the past two years, they have worked in Argentina, Australia, Austria, China, Egypt, Germany, Iran, Japan, Kuwait, Netherlands, Norway, Singapore, Switzerland, United Kingdom, and the United States.
- Bruce and Dorothy Rosetti Scholarships are awarded for thesis-related travel and research beyond Atlantic Canada. Typically, six students receive \$3,500 each. Since 2008 the recipients have done research in Belgium, Brazil, Cambodia, western Canada, Denmark, Finland, Greece, India, Iran, Italy, Japan, Norway, Spain, Sri Lanka, Sweden, Thailand, Turkey, United Kingdom, and the United States.
- The John D. Watson Memorial Scholarship is awarded for thesis-related research in green design (\$2,500 each year). This may include travel.
- In 2013, 24 MArch students worked on the Arctic Adaptations competition, which resulted in three students traveling to Nunavut to develop their project in conjunction with a northern architectural firm, then presenting it as part of Canada's entry in the 2014 Venice Biennale.
- The university's Study/Work International Fund (SWIF) provides students up to \$2,000 for academic travel beyond Canada: a field trip in a course, a co-op work term placement, a student exchange, etc.

- The H. Allen Brooks Traveling Fellowship was established in 2010. It will provide approximately \$30,000 to an outstanding student for a year of travel and study after graduation. It has not yet been awarded.

External Awards for Students

In addition to internal scholarships within the School, the following students have taken advantage of external scholarships and competitions since 2008.

Award	Year	Recipient	Value
Berkeley Prize Essay Competition	2014	Michael Philpott	third prize
	2011	Holly Simon	first prize
	2010	Tara Gaskin	second prize
	2010	Holly Simon	finalist
	2009	Tyler Rozicki	second prize
	2009	Adam Smith	finalist
Canada Council: Prix de Rome for Emerging Practitioners	2013	Brett MacIntyre	\$34,000
Canadian Architect: Student Awards of Excellence	2014	Matthew Griffin-Allwood	first prize
	2009	Eric Baczuk	first prize
	2008	Kevin James	first prize
Canadian Wood Council: Catherine Lalonde Scholarship	2011	Sam Lock	\$1,000
Dalhousie University: Faculty Impact Leadership Award	2013	Will Perkins	
Persons Case Scholarship	2009	Holly Simon	\$4,000
RCA / Ernest Annau Scholarship	2013	Emily Wilson	\$2,500
	2009	Karl Vinge	\$2,500
	2008	Bryn Marler	\$2,500
Scholarship in Honour of Michael Evamy	2013	Gavin Schaefer	\$8,000
SSHRC Bombardier Scholarship	2014	Matthew Jones	\$17,500
	2013	Gavin Schaefer	\$17,500
	2012	Naryn Davar	\$17,500
Steel Structures Education Foundation Scholarship	2014	Glen Nicholson	\$3,000
	2013	Jeff Shaw	\$3,000
	2012	David Tyl	\$3,000
	2011	Michael Cook	\$3,000
	2010	David Cocks	\$3,000
	2009	Melani Pigat	\$3,000

3.6.7 Student Support Services

Academic Advising for Prospective Students

Prospective students are provided with printed admission brochures and comprehensive information in the Prospective Students section of the School of Architecture website (<http://tinyurl.com/n9h8lee>). Each year the School's Undergraduate Secretary, Susanna Morash-Kent, also responds to thousands of inquiries by phone and e-mail. (Questionnaires from incoming students consistently praise her for being exceptionally helpful and prompt, much better than the contacts at other Canadian architecture schools.) Difficult questions - and students - are referred to the Undergraduate/Graduate Coordinator. Each month the Undergraduate Secretary meets with 15–20 prospective students (and sometimes family

members) to discuss the program and how to prepare for it. The Architecture office also advises the University, the Registrar's Office, and the Faculty of Graduate Studies on architectural recruitment, partly in committee meetings attended by our Undergraduate Secretary.

Academic Advising for Current Students

A booklet called "Intro to Architecture at Dalhousie" is distributed to all incoming students. It includes information that students need during their first month at the school: what to bring, traveling to Halifax, accommodation, urban surroundings, campus facilities, school facilities, and photos of faculty and staff.

The "Current Students" section of the School's website (<http://tinyurl.com/m95er6n>) provides additional information on registration, academic regulations, administrative procedures, scholarships, committee representatives, Faculty facilities and equipment, local suppliers, etc. The Undergraduate Secretary and the Graduate Secretary, Bev Nightingale, provide basic information to current students. Those with more difficult questions contact the Undergraduate/Graduate Coordinator or the Director, either in person or by e-mail. Students who have been absent due to illness or a family emergency may need assistance to reschedule assignments and/or obtain extensions. Students who encounter personal difficulties are often referred to the university's Counselling and Psychological Services on the Studley Campus, where the professional counsellors have been very helpful.

All BEDS courses are required, so advice on undergraduate course selection is unnecessary, except for possible transfer credits. At the end of BEDS Year 3, each student is considered for promotion to Year 4 and receives a promotion letter. Any items of concern (e.g., low grades in a particular area or a low GPA that would make MArch admission unlikely) are mentioned in the letter to clarify the student's standing. Various options for the following year may be described. To avoid architectural tunnel vision, BEDS students are reminded that the BEDS program is not only a foundation for the MArch program but also a step toward the Faculty's Master of Planning program and many other careers, depending on a student's strengths and interests.

At the end of BEDS Year 4, each student is considered for BEDS graduation. Assuming that all courses have been passed, this is automatic. A more substantial threshold at this time is MArch admission, which requires integrated strengths in design, humanities, technology, representation, and professional practice, as evident in the student's design portfolio and grades. Admission is a sign that a student is likely to do well in the MArch program. Students who are not admitted receive a letter that mentions the admission criteria and standards, describes some of their strengths and weaknesses, and may offer advice on how to improve their standing if they wish to reapply.

In the MArch program, there are more course options and opportunities for students to consider. Academic advising is provided mainly by the Graduate Coordinator, who assists with course selection, scholarship applications, student exchanges, Graduate Studies regulations, work term continuation, potential thesis topics, and thesis regulations.

Co-op Work Term and Career Assistance

The Faculty of Architecture and Planning's Office of Career and Community Services provides assistance for co-op work term placements for architecture students and planning students. It also assists alumni who are seeking employment. General employment assistance (résumé writing, etc.) is also available from the Dalhousie Career and Leadership Development Centre.

Paula Costello, the full-time director of CCS, has an office in the Medjuck Architecture Building. She is a member of the School's Professional Practice teaching group and works closely with its other members to monitor student progress before, during, and after a work term, including the completion of each student's work term assignment and work term presentation. The BEDS and MArch co-op work terms are required credit courses that are supervised by a faculty member and include graded assignments. These arrangements illustrate the close relation between the co-op work terms and the rest of the academic program. Paula Costello

has a part-time assistant who works with the Faculty's employment database and assists with student-related issues. The Co-op Office provides additional assistance to students:

- seminars on writing a CV and a cover letter, designing a portfolio, and interviewing for a position
- individual counselling on job searches and career paths
- promotion of students and programs to employers through direct mail marketing, personal visits, telephone contact, Internet links, focused advertising, and liaison with relevant professional associations and alumni
- posting part-time and full-time positions for co-op work terms, sent by e-mail and posted on electronic bulletin boards
- provision of information on potential employers, international work permits, and professional registration
- processing of job applications
- coordination of job interviews and offers
- monitoring students' progress through the work term requirements
- recognition of employer contribution after each work term and at graduation

The Office of Career and Community Services also maintains links with the University, Faculty, School, profession, and community. The Director of Career and Community Services attends Faculty and Professional Practice teaching group meetings; represents the Faculty in a variety of functions, bodies and events; and is an active participant in professional associations, including:

- Dalhousie Employer Relations Council
- Dalhousie Continuing Education Forum
- Dalhousie Academic Advising Forum and Fair
- Dalhousie International and Exchange Student Emergency Contact
- Dalhousie Integrated Marketing
- Dalhousie Enrolment Planning and Management Recruitment Team
- Dalhousie Editorial Team
- American Institute of Architects Intern Development Coordinator
- Nova Scotia Association of Architects Intern Architects Committee
- Nova Scotia Provincial Employment Review Committee
- high school student, parent, and guidance counsellor information sessions
- coordination of Information brochures
- organization of alumni receptions
- organization of Faculty academic advising activities
- coordination of Faculty participation at Registrar's Office recruitment events
- Canadian Institute of Planners
- Atlantic Planners Institute
- Nova Scotia Association of Professional Planners
- Royal Architectural Institute of Canada
- Nova Scotia Association of Architects
- Canadian Association for Cooperative Education
- Architecture Career Help Network

University Services for Students

Dalhousie University offers comprehensive student services (<http://tinyurl.com/lb6wodv>) that are overseen by the university's Vice President Student Services. Most of these services and facilities are located on the Studley Campus, a ten-minute walk away. The Sexton Campus has:

- athletic facilities
- bookstore for textbooks
- computer help desk
- library
- student lounge (T-Room)
- three student residences and food service
- Student Service Centre (satellite of the Registrar's Office)

3.6.8 Guest Lecturers and Visiting Critics Since 2008

Guests are invited to the School of Architecture for public lectures in courses, the annual Professional Practice Week, the student-run DASA lecture series, conferences, and symposia. Rather than just lecturing in the auditorium for ninety minutes, many are also invited to stay longer at the school to participate in seminars or reviews with students. Conversely, visiting critics are often invited to give a lecture on their work, so that students become familiar with the background of the critic who is reviewing their projects. Most lectures are scheduled in the evening and are open to the public.

The School's contacts within the province also provide local lecturers from various fields. Below is a list of lecturers and critics who visited the School from 2008 to 2014. Not being in a large city with many architectural practices at our fingertips, and with the nearest architecture school over a thousand miles away, a large part of our discretionary budget is spent on travel for lecturers and critics.

In addition to inviting distant visitors, the School hosts a lunch-hour lecture series once a week during the fall and winter terms. Faculty members and adjuncts reschedule a lecture from a course they are currently teaching and present it to the whole school. These lunch-hour lectures are open to local professionals who would like some food for thought during their lunch break.

Guest Lecturers (2008–09)

Diogo Burnay	Lisbon, Portugal
Bill Gastmeier	Toronto
Paul Gavreau	Toronto
Siamak Hariri	Toronto
Kelly Hayes-McAlonie	Buffalo, NY
Roland Hudson	Bath, UK
Lloyd Hunt	Glen Huron, ON
Rick Joy	Tucson, AZ
Diebedo Francis Kéré	Berlin; Burkina Faso
Perry Kulper	Ann Arbor, MI
Tom Kundig	Seattle, WA
Robert Mellin	Montréal, St. John's

Richard Murphy	Edinburgh, UK
Barton Myers	Santa Barbara, CA
Timothy Newton	Hartford, CT
Tom F. Peters	Zürich, Switzerland
Stephen Teeple	Toronto
Geoffrey Thün	Toronto
Billie Tsien	New York
Kathy Velikov	Toronto
Cristina Verissimo	Lisbon, Portugal
Leigh Ann Vardy	Halifax
Paul Westbrook	Toronto

Visiting Critics (2008–09)

Gavin Affleck	Montréal
Diogo Burnay	Lisbon, Portugal
Trevor Butler	London, UK
Morgan Carter	Boston, MA
Lily Chi	Ithaca, NY
Jean-Pierre Chupin	Montréal

Ian MacDonald	Toronto
John McMin	Toronto
Robert Miller	Charleston, SC
Barton Myers	Santa Barbara, CA
Emma Nsgube	London, UK
André Potvin	Québec

Rodolphe el-Khoury	Toronto
Annette Fierro	Philadelphia, PA
Deborah Gans	New York, NY
Ole Hammarlund	Charlottetown
Benjamin Ibarra-Sevilla	Minneapolis, MN
Rick Joy	Tucson, AZ
Drew Klassen	Halifax
Peter Lynch	New York, NY

Guest Lecturers (2009–10)

Ingerid Helsing Almaas	Oslo, Norway
Amale Andraos	New York
Marlon Blackwell	Fayetteville, AK
H. Allen Brooks	Toronto
Trevor Butler	Kelowna, BC
Ian Chodikoff	Toronto
Michael Cook	Portland, OR
Carmen Corneil	Trondheim, Norway
Dominic Cullinan	London, UK
James Cutler	Bainsbridge Is., WA
Leila Farah	Montreal
Bill Gastmeier	Toronto
Michael Gibson	Indianapolis, IN

Visiting Critics (2009–10)

Marlon Blackwell	Fayetteville, AK
Carol Burns	Boston, MA
Trevor Butler	Kelowna, BC
James Cutler	Bainbridge Is., WA
Deborah Gans	New York, NY
Madeleine Bonde Hatz	New York, NY
Vincent James	Minneapolis, MN
Andrea Kahn	New York, NY
Nina-Marie Lister	Toronto

Guest Lecturers (2010–11)

Aldric Beckmann	Paris, France
Diogo Burnay	Lisbon, Portugal
Trevor Butler	Kelowna, BC
Alessandra Cianchetta	Paris, France
Dale Clifford	Pittsburgh, PA
Susan Fitzgerald	Halifax
Frank Harmon	Raleigh, NC
Lloyd Hunt	Glen Huron, ON
Stan Kochanoff	Halifax

Jacques Rousseau	Montréal
Kathryn Savage	Ottawa
Nada Subotincic	Winnipeg
Pierre Thibault	Québec
Geoffrey Thün	Toronto
Leslie Van Duzer	Minneapolis, MN
Cristina Verissimo	Lisbon, Portugal

Lloyd Hunt	Glen Huron, ON
Benjamin Ibarra-Sevilla	Minneapolis, MN
Vincent James	Minneapolis, MN
Elke Krasny	Vienna, Austria
Janike Larsen	Oslo, Norway
Janna Levitt	Toronto
Paul Shepherd	Bath, UK
Peter Stutchbury	Australia
Kevin Sweet	St. David, ME
James Timberlake	Philadelphia, PA
Leigh Ann Vardy	Halifax
Paul Westbrook	Toronto
Dan Wood	New York, NY

Peter Lynch	New York, NY
Ian MacDonald	Toronto
Pablo Molestina	Cologne, Germany
Jacques Rousseau	Montreal
Jacqueline Spafford	Santa Barbara, CA
Kim Storey	Toronto
Nova Tayona	Toronto
Leslie Van Duzer	Minneapolis, MN

Lauren Mitchell	Greenville, SC
Barton Myers	Los Angeles, CA
Michelangelo Sabatino	Houston, TX
Barry Sampson	Toronto
Morten Schmidt	Copenhagen, Denmark
Kim Smith	Vancouver
Julie Snow	Minneapolis, MN
Tao Sule	London, UK
Bruce Tonn	Knoxville, TN

Elke Krasny	Vienna, Austria
Glen McMinn	Halifax

Paul Westbrook	Toronto
Chris Williams	Bath, UK

Visiting Critics (2010–11)

Robert Adams	Ann Arbor, MI
Brian Arnott	Toronto
Manon Asselin	Montréal
Carol Burns	Boston, MA
Trevor Butler	Kelowna, BC
Dominic Cullinan	London, UK
Howard Davies	Montréal
Rodolphe el-Khoury	Toronto
Deborah Gans	New York, NY

Frank Harmon	Raleigh, NC
Annette LeCuyer	Buffalo, NY
Peter Lynch	New York, NY
John McMinn	Toronto
Barton Myers	Los Angeles, CA
Barry Sampson	Toronto
Peter Sassenroth	Berlin, Germany
Julie Snow	Minneapolis, MN
Thomas Strickland	Montréal

Guest Lecturers (2011–12)

Noriko Akita	Chiba, Japan
Taymoore Balbaa	Toronto
Joanna Berzowska	Winnipeg
Jason Bregman	Wilmington, VT
Gregory Burgess	Richmond, Australia
Trevor Butler	Kelowna, BC
Dale Clifford	Pittsburgh, PA
Roger Connah	Ottawa
Yves de Fontenay	Montréal
Johanna Hurme	Winnipeg
Craig Kiner	London, UK

John Leroux	Fredericton
Catherine Mosbach	Paris, France
Hubert Pelletier	Montréal
Wen Quek	London
Sasa Radulovic	Winnipeg
Paul Shepherd	Bath, UK
William Tate	Staunton, VA
Paul Westbrook	Toronto
Ron Wickman	Halifax
Gair Williamson	Vancouver
Adam Yarinsky	New York

Visiting Critics (2011–12)

Laura Alvey	London, UK
Taymoore Balbaa	Toronto
Trevor Butler	Kelowna, BC
Brian Carter	Buffalo, NY
Morgan Carter	Montréal
Nat Chard	Winnipeg
Dominic Cullinan	London, UK
Terrance Galvin	Montréal
Deborah Gans	New York, NY

Andrea Kahn	New York, NY
Annette LeCuyer	Buffalo, NY
Kourosh Mahvash	Vancouver
Wen Quek	London, UK
Janet Rosenberg	Toronto
Peter Sassenroth	Berlin, Germany
William Tate	Staunton, VA
Geoffrey Thün	Ann Arbor, MI
Cristina Verissimo	Lisbon, Portugal

Guest Lecturers (2012–13)

Chris Allen	Penticton, BC
Simon Allford	London, UK
Maria Arquerio de Alarcón	Ann Arbor, MI
Frédéric Bonnet	Paris, France
David Bowick	Toronto
Joel Breaux	Breaux Bridge, LA
Jason Bregman	West Palm Beach, FL
Cory Brugger	New York

Gerard Lynch	Milton Keynes, UK
Toshiko Horiuchi MacAdam	Halifax
Chris Magwood	Peterborough, ON
Marianne McKenna	Toronto
François Migeon	Paris, France
Terry Montgomery	Toronto
Ariella Pahlke	Terrance Bay, NS
John Patkau	Vancouver

Wendell Burnette	Phoenix, AZ
Carmen Corneil	Trondheim, Norway
Elin Corneil	Trondheim, Norway
Jack Diamond	Toronto
Tim Eliassen	Westford, MA
Richard Graves	Minneapolis, MN
David Hanna	Montréal
John Houston	Halifax
David Jameson	Washington, DC
Barry Johns	Edmonton
Jamie Maslyn Larson	New York

Visiting Critics (2012–13)

Joshua Armstrong	Iqaluit, NU
Maria Arquero de Alarcon	Ann Arbor, MI
David Bowick	Toronto
Cory Brugger	New York, NY
Wendell Burnette	Phoenix, AZ
Brian Carter	Buffalo, NY
Morgan Carter	Montréal
Nat Chard	Brighton, UK
Randy Cohen	Montréal
Jack Diamond	Toronto
Tim Eliassen	Sunapee, NH

Guest Lecturers (2013–14)

Philip Beesley	Waterloo, ON
Bryan Bell	Raleigh, NC
David Bowick	Toronto
John Brown	Calgary
Robert Brueggemann	Chicago
Matthew Coolidge	Los Angeles, CA
Jennifer Corson	Halifax
Nichola Feldman-Kiss	Toronto
James Forren	Boston, MA
Adrian Forty	London, UK
Lisa Gray	New Haven, CT
Ken Greenberg	Toronto
Hans Ibelings	Montreal
Ramzi Kawar	Halifax
Brett MacIntyre	Fernie, BC

Visiting Critics (2013–14)

Gavin Affleck	Montréal
Maria Arquero	Ann Arbor, MI
David Bowick	Toronto
Trevor Butler	Kelowna, BC

Mark Patterson	Phoenix, AZ
James Pfeiffer	Kansas City, MO
Terry Quennell	Timberlea, NS
Kathryn Savage	Ottawa
Lola Sheppard	Toronto
Jorge Spencer	Lisbon, Portugal
Peter van Tiesenhausen	Demmitt, AB
Leigh Ann Vardy	Halifax
Brenda Webster	Toronto
Paul Westbrook	Toronto

Annette LeCuyer	Buffalo, NY
Janna Levitt	Toronto
Jennifer Maigret	Ann Arbor, MI
J. David Miller	Toronto
Pablo Molestina	Cologne, Germany
John Patkau	Vancouver
Lola Sheppard	Toronto
Jorge Spencer	Lisbon, Portugal
Thomas Strickland	Montréal
Geoffrey Thün	Ann Arbor, MI
Mason White	Toronto

Robert McCarter	St. Louis, MO
Mark Meagher	Sheffield, UK
Alex Mustonen	Brooklyn, NY
Barton Myers	Santa Barbara, CA
Sergio Palleroni	Portland, OR
Peter Raab	Lubbock, TX
Beverly Sandalack	Calgary
Brigitte Shim	Toronto
Pieter Sijpkens	Montréal
Geoffrey Thün	Ann Arbor, MI
Sadao Tsuchiya	Tokyo, Japan
Brenda Webster	Toronto
Krzysztof Wodiczko	Cambridge, MA
Peter Yeadon	Providence, RI

Andrea Kahn	New York, NY
Elke Krasny	Vienna, Austria
Janna Levitt	Toronto
Jennifer Maigret	Detroit, MI

Nat Chard	Brighton, UK
Dominic Cullinan	London, UK
Adrian Forty	London, UK
Lawrence Friesen	London, UK
Mitchell Hall	Toronto
Hans Ibelings	Montréal

Robert McCarter	St. Louis, MO
Marianne McKenna	Toronto
Reza Nik	Toronto
Barton Myers	Santa Barbara, CA
Brigitte Shim	Toronto
Geoffrey Thün	Ann Arbor, MI

3.6.9 Public Exhibitions Since 2008

Exhibitions are held in the Faculty's Exhibition Room, which is equipped with large display panels, rolling partitions, and track lighting. Because this space is used also for design reviews, workshops, classes, and social events, exhibitions tend to be scheduled early in the term, before other demands arise. The exhibitions below include traveling exhibitions, student projects, presentations of faculty research and design work, and collaborations with other local institutions and municipal events.

2008–09 exhibitions	Graduation Exhibition - Architecture and Planning
	Robert Mellin, "Tilting: Architecture and Material Culture in Fogo Island, Newfoundland"
	Kip Harris, "Walks in Rome"
	Christine Macy, "Two Communities in The Gambia"
2009–10 exhibitions	Graduation Exhibition - Architecture and Planning
	"Twenty + Change 02"
	Rosetti Scholarship Exhibition
	Grant Wanzel, "Inside AND Outside the Lines"
	Sarah Bonnemaïson and Ronit Eisenbach, "Installations by Architects"
	Nocturne Installation
2010–11 exhibitions	"Architecture e+c: The Work of Elin + Carmen Corneil, 1958 to 2008"
	Graduation Exhibition - Architecture and Planning
	Rosetti Scholarship Exhibition
2011–12 exhibitions	Elke Krasny, "The Making of Architecture"
	Graduation Exhibition - Architecture and Planning
	Mark Erickson and Clara Shipman, "Fluid Space Time: Two Intern Architects Navigate The Gambia" (IYIP)
	Rosetti Scholarship Exhibition
	Jae-Sung Chon + 5468796 Architecture Inc., "Migrating Landscapes" for 2012 Venice Biennale
	"Fifty Years of Architecture and Planning Education in Atlantic Canada"
	Sarah Bonnemaïson and Robin Muller, "Architextile Lab" (Atlantic Innovation Fund)
2012–13 exhibitions	Susan Fitzgerald Architecture, "productive . urban . landscapes . cities . cultivation . context" (Professional Prix de Rome)
	Graduation Exhibition - Architecture and Planning
	Emma FitzGerald, in Collaboration with Women of Lesotho, "Peace Rain Prosperity"
	Roger Mullin, "Orthographic Views"
	Rosetti Scholarship Exhibition
2013–14 exhibitions	Sarah Bonnemaïson, "My Mother's Kitchen" (SSHRC Research-Creation)
	Graduation Exhibition - Architecture and Planning
	Emily Wilson, "Türangawaewae: A Place to Stand" (RCA Ernest Annau Scholarship)

Traveling Scholarship Exhibition: Rosetti Scholarship and John D. Watson Memorial Scholarship

Brett MacIntyre, "Lessons From Lappland: Pragmatism, Temporality, and the Challenge of Icons in Indigenous Design" (Prix de Rome for Emerging Practitioners)

3.7 Physical Resources

3.7.1 Building Description

The School of Architecture is located entirely in the Medjuck Architecture Building, which was built in 1908–09 to house the newly established Nova Scotia Technical College. It has been in continuous use since that time, and has been the home of the School of Architecture since 1961. This landmark building is located in the civic core of Halifax, and we are proud to be its guardian. It has been modified, upgraded, and expanded many times over the years - including an addition in 1993, a studio extension and upgrades in 2002, and a new lobby in 2007 - and presently comprises more than 32,000 square feet of net usable space.

The building serves the Faculty's two Schools: Architecture, with approximately 220 students (25% of whom are away on work term at any given time); and Planning, with approximately 150 FTE students (only 50 of whom are in studio-based programs). Both schools operate during the fall and winter academic terms. Architecture also operates in summer, when it has the building largely to itself.

On the Sexton Campus, buildings are designated alphabetically; the Architecture building is H Building. Levels in the Architecture building are also designated alphabetically, from A at the bottom to E at the top. Room numbers indicate the building, level, and room: e.g., HB4. There are 164 studio workstations for architecture students during the fall and winter terms, and 181 in the summer. The following list of rooms in the Medjuck Building is linked to the six building plans (3.7.4).

Level A (wheelchair accessible)		
Ground Floor		
	HA19	Auditorium (142 fixed seats, data projector, sound system)
	HA18	Multipurpose classroom (60 movable chairs, data projector, sound system)
Workshops	HA1	Model shop, with direct access to outdoor work yard and exterior storage
	HA26	Digital fabrication lab
	HA23	Wet lab
Offices	HA3	Office for Dalhousie Architectural Press, with shipping area and book storage
	HA5–8	Four faculty/staff offices, with shared foyer
	HA15–16	Digital printing room and technician's office
	HA30–33	Two offices (Director of Computer Services, Manager of Digital Fabrication Lab) with computer workspace and recycling area
Level B (wheelchair accessible)		
First Floor		
	HB21	Exhibition Room, also used as the major review space
	HB4	Multipurpose classroom (60 movable chairs, data projector)
	HB8	Resource Centre, including copy centre, visual resources, student workstation
School of Planning facilities	HB1	GIS Computer Lab
	HB2	Multipurpose classroom (40 movable chairs, data projector)
	HB3	Master of Planning studio (25 seats, movable furniture, lockable storage)
	HB3A	BCD Honours Planning studio (15 seats, data projector, movable furniture)
	HB3B–3D	School of Planning administrative offices, kitchen

Offices	HB5	Office area for School of Architecture administrative staff (includes a small counseling area and a print room)
	HB6	Office for Dean's Administrative Assistant
	HB7	Dean's office (also used for meetings and seminars)
	HB20A	Faculty lounge (also used for meetings and seminars)
	HB19	Office for Director, School of Architecture
	HB18	Office for Director of Career and Community Services
	HB9–16	Four faculty offices (HB9, HB13, HB15, HB16)
	HB11	Staff lunch room
Level C		(not wheelchair accessible)
First Floor Mezzanine		
	HC1–8	Eight faculty offices
Level D		(wheelchair accessible)
Second Floor		
Studios	HD1–3	East and West Studios, with 94 student workstations, two open-access computer labs, and a recycling area for studio materials
	HD2A	Centre Studio, with 18 student workstations
	HD4	Seminar room (commonly known as the Green Room)
	HD2	John D. Watson Architecture Student Lounge
Level D'		(not wheelchair accessible)
Second Floor Mezzanine		
Studios		East and West Studio mezzanines, with 52 student workstations
Level E		(not wheelchair accessible)
Third Floor		
Studios	HE1A	Studio with 17 student workstations, normally used by Planning in fall and winter and by Architecture in summer
	HE1	Computer lab, learning commons, MPlan lounge (commonly known as the Furry Room)
	HE2	Spray room with ventilated spray booth

Each full-time architecture student has exclusive use of a studio workstation with a desk, a chair, and a locker, plus Internet access via the wireless network. Portable wooden partitions are also available in the studio.

Each full-time faculty member has exclusive use of an office, with a computer linked to the Faculty network. Part-time faculty members and some adjunct instructors share offices.

3.7.2 Building Changes Since 2008

The most significant improvements since the last accreditation visit have been to maximize natural ventilation and daylight where possible, and to stress flexibility and reconfigurability in teaching and learning spaces.

- In 2009, a major renovation of the Architecture office and the Resource Centre increased usable work space, daylight, and natural ventilation. This project included a student competition for the design of decorative grillwork. The additional space was obtained by removing a dedicated faculty meeting room.
- From 2010 to 2013, all classrooms were renewed: wooden chairs replaced with lightweight rolling tablet-arm chairs, audio-visual equipment upgraded, blinds installed, and large-format digital projection screens installed.

- The studios were also upgraded by introducing locked doors that limit access to reduce incidents of theft and by adding suspended power supplies in the centre of the East and West Studios. Print facilities in the studios have been continually modernized with the addition of more machines, colour printers, and the ability to pay at the point of purchase.
- In 2012, wireless Internet was installed throughout the building.
- In 2012–13, the masonry exterior of the entire building was re-pointed, all windows were replaced with insulated operating sashes, and blinds were installed on the studio windows. Providing students with direct control of ventilation and daylight at their desks has significantly improved their comfort in the studio.
- In 2013, the wet lab was moved and reduced in size. This enabled the digital fabrication lab to be doubled in size. It also received convertible power points and a major ventilation upgrade for airborne exhausts. The digital router was relocated to the model shop, which has a dust removal system.
- Two containers were installed behind the building for material storage until additional facilities are available.

3.7.3 Future Building Changes

Renewal of Auditorium (funded)

There will be new seats with tablet arms, a new podium, and new audio-visual equipment and controls. Completion is expected in 2014–15.

Accessibility of Third Floor (proposed)

An engineering study in 2009 proposed to drop the ceiling over the main stairway to permit wheelchair access from the third floor elevator lobby to Room HE1, the Upper Studio.

Work Yard (proposed)

A design-build outdoor work yard would be created between the Medjuck Architecture Building and the new Halifax Central Library, where a parking lot is currently located.

IDEA Project (partially funded)

Although Dalhousie has invested steadily in upgrading the facilities on the Sexton Campus, years of neglect are still evident throughout the campus. As the Faculty of Engineering greatly increased its student numbers, starting in 2008, facilities have become overcrowded as well as outdated. The most significant shortcomings are for large classrooms, convertible and flexible teaching spaces, and safe and modern workshops.

The Faculty of Engineering and the Faculty of Architecture and Planning have been working with the university leadership to remedy this situation through the IDEA Project (acronym for Innovation and Design in Engineering and Architecture). This project envisions a student-focused facility with modern classrooms; flexible and convertible design labs and studios; workshops for teaching, research, and industry collaborations; and a student learning commons. It would also include large lecture halls, upgraded workshops, and central deliveries on Sexton Campus. The overall space needs on Sexton Campus require 112,600 square feet of new learning space, with an estimated cost of \$37.3 million. At the close of the university's Capital Campaign in 2013, \$2 million had been raised for this purpose. In 2013, Sexton students agreed to support the IDEA Project through a student levy of \$100 per term, providing an additional \$7 million. Approval of the Sexton Campus student fee levy, together with continued pressing needs for immediate relief of the space shortages, led to the university's decision to proceed with the IDEA Project in two phases:

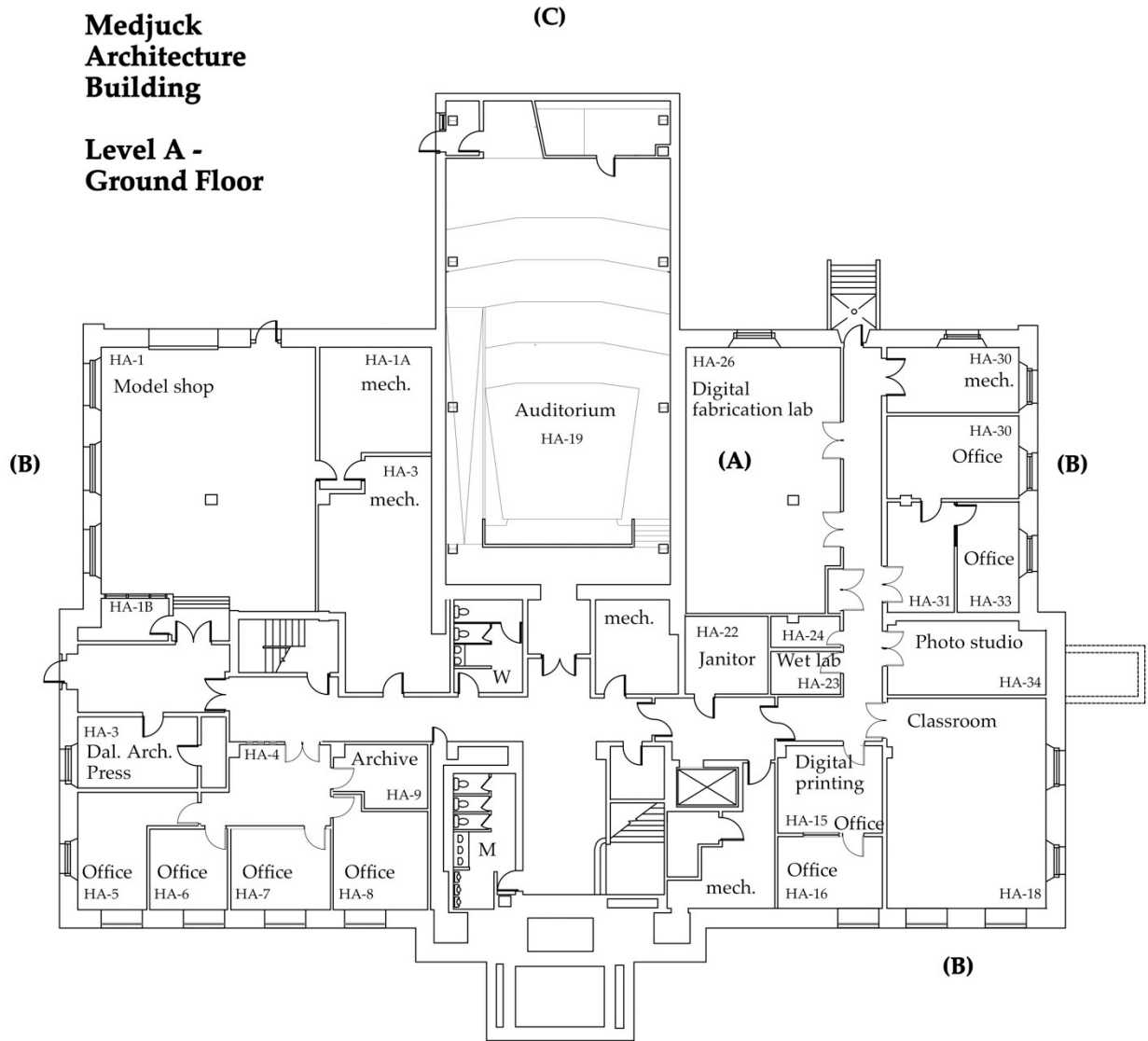
- Phase One is for a building that will include the most urgent space components of the proposed IDEA Project: high-bay workshops at grade level, a large classroom/theatre with a capacity for up to 450, a learning commons, and studios. The university has retained architectural and engineering services to complete a concept design and location analysis for this phase.
- Phase Two is linked to the university's plans to exercise its option to purchase the lands immediately south of the new Halifax Central Library. In Fall 2014, it will convene a roundtable workshop to bring together key stakeholders and financial and design experts to create a conceptual framework for development of these Sexton Campus lands. If successful, this plan will provide additional resources and partners to realize the balance of the IDEA Project, while developing the Sexton Campus in a way that will benefit Dalhousie, the city, and the province.

3.7.4 Building Plans

The next six pages present the plans of the Medjuck Architecture Building, including changes since 2008.

**Medjuck
Architecture
Building**

**Level A -
Ground Floor**



Changes since 2008

A. Digital Fabrication Lab expanded and upgraded

B. Exterior windows replaced

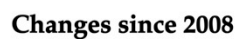
C. Material storage provided



N



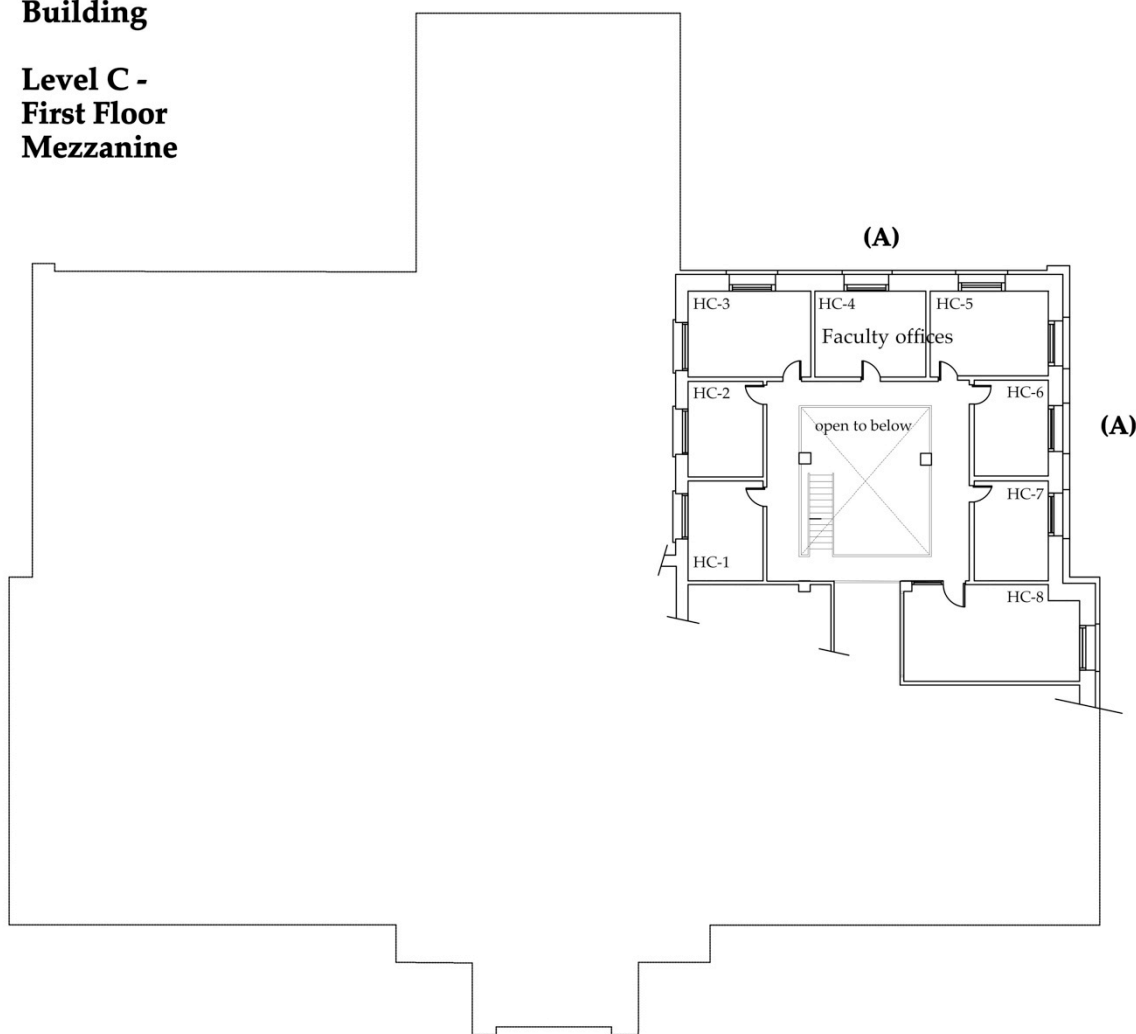
Level B - First Floor



-

**Medjuck
Architecture
Building**

**Level C -
First Floor
Mezzanine**

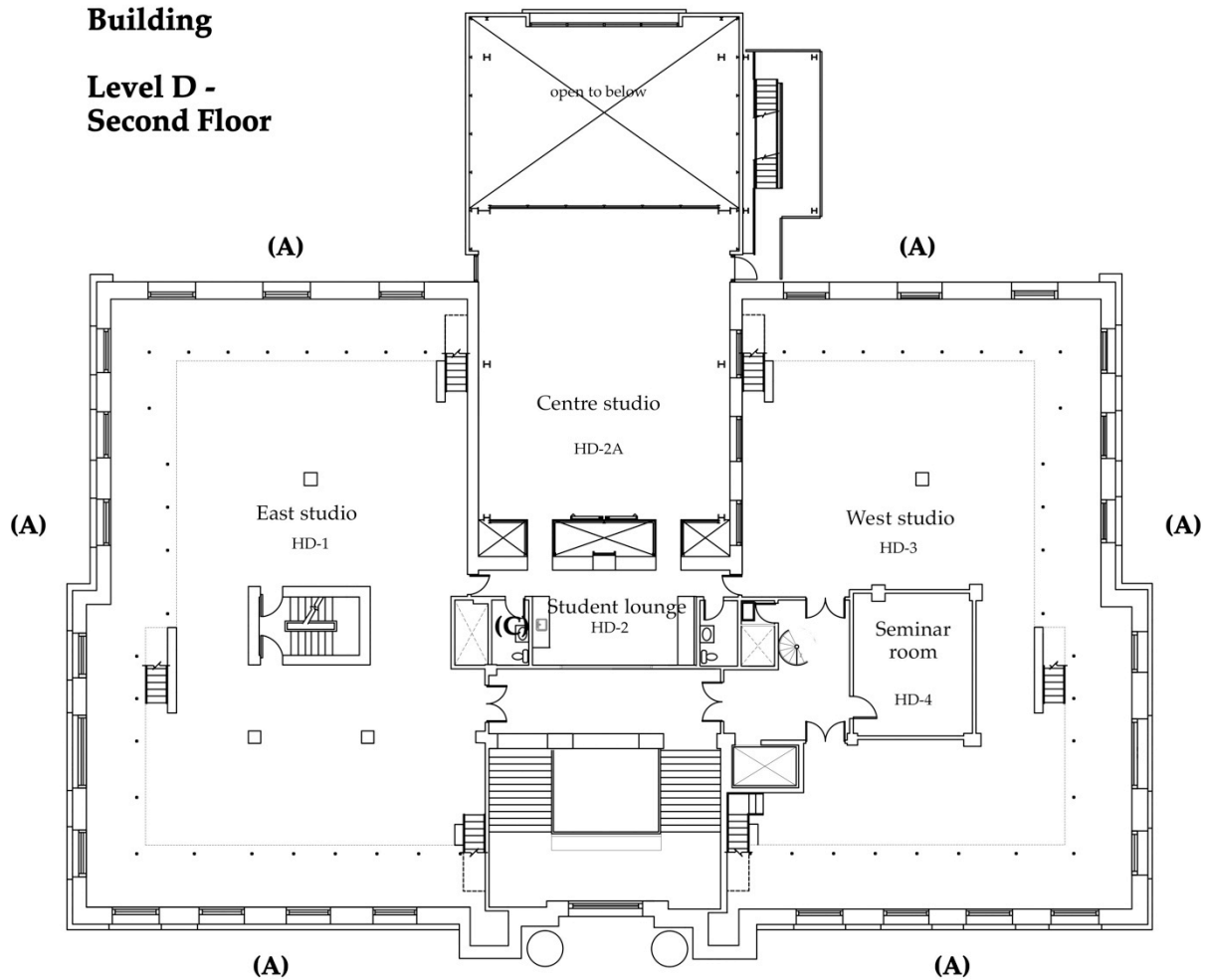


Changes since 2008
A. Exterior windows replaced



**Medjuck
Architecture
Building**

**Level D -
Second Floor**



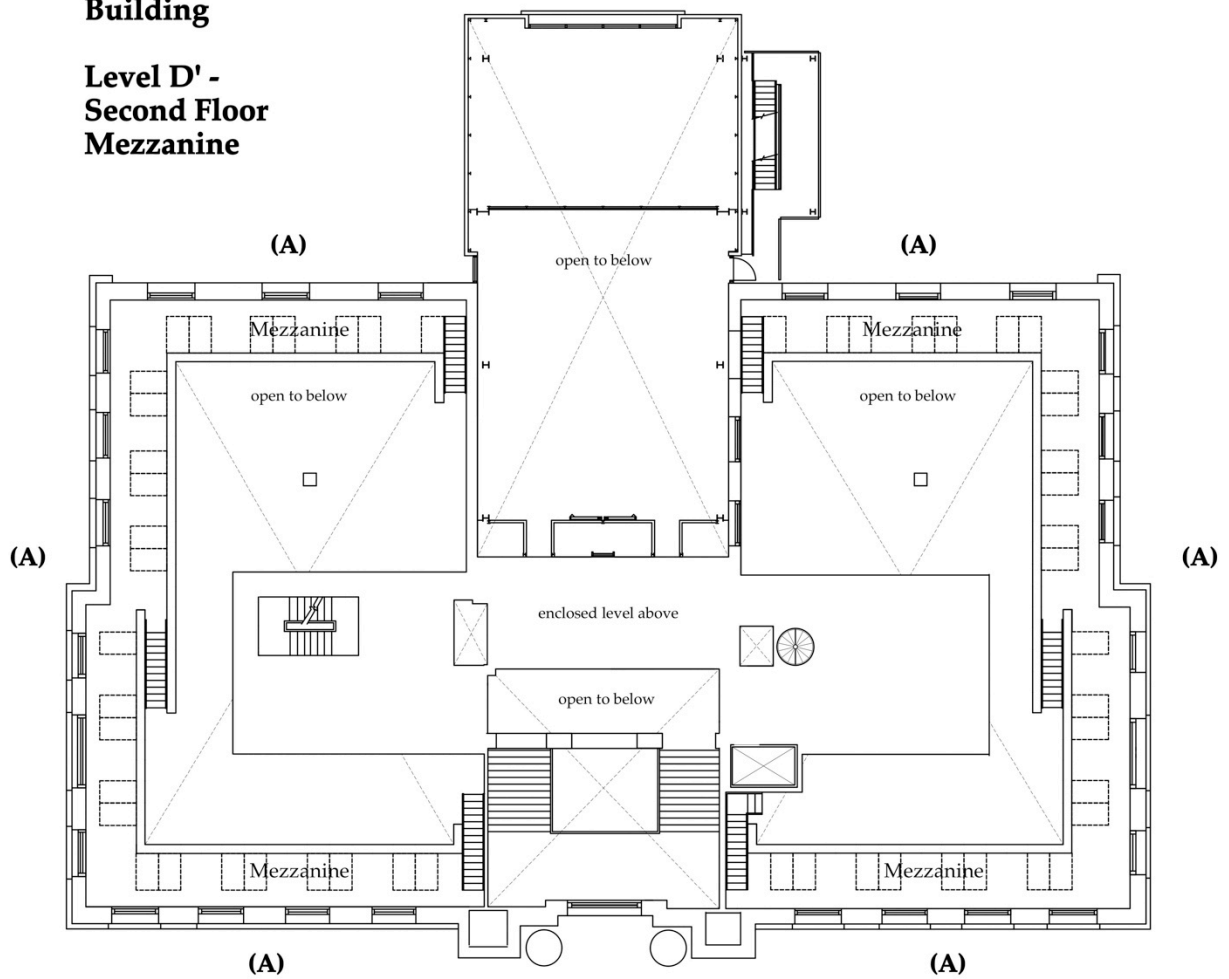
Changes since 2008
A. Exterior windows replaced



0 4 8 25 ft.

**Medjuck
Architecture
Building**

**Level D' -
Second Floor
Mezzanine**



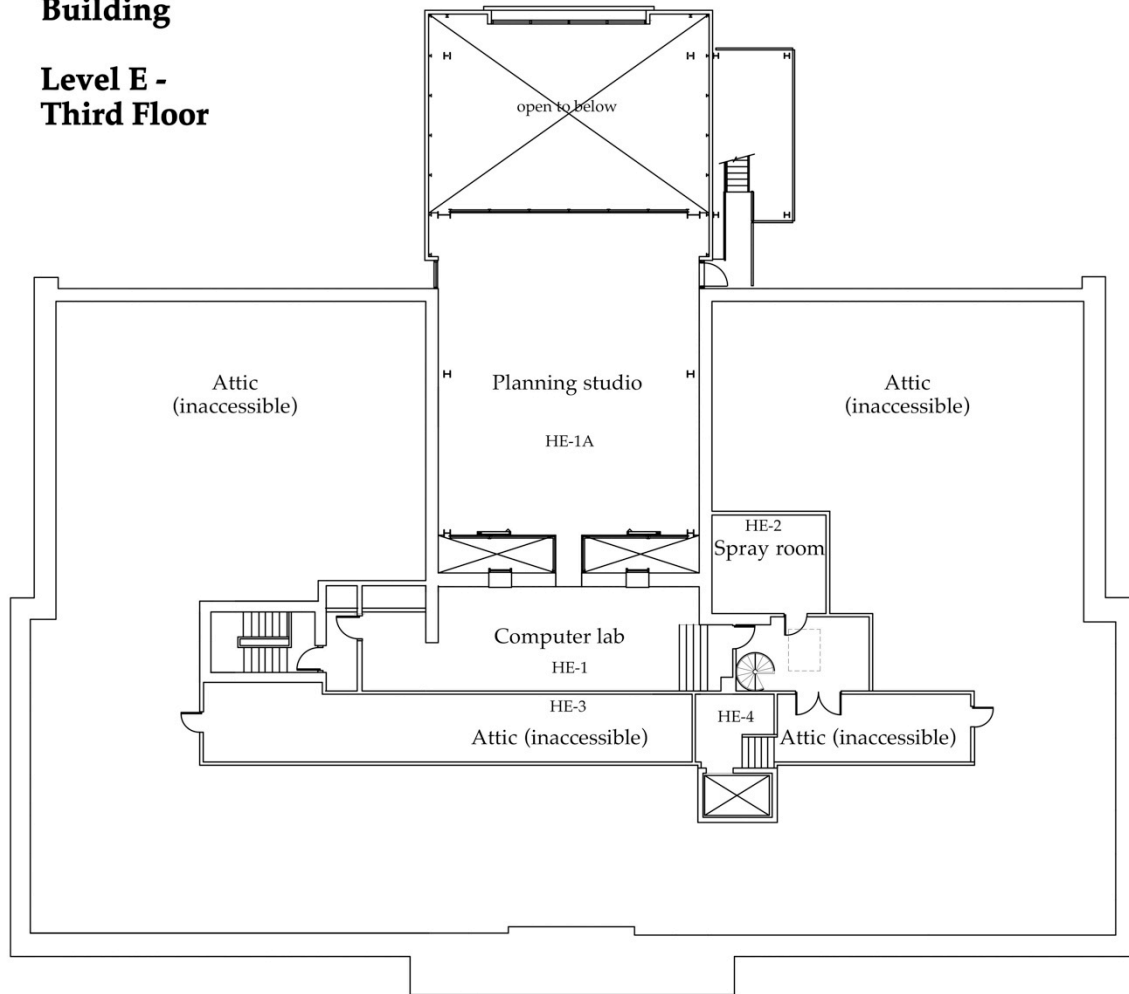
Changes since 2008

A. Exterior windows replaced



**Medjuck
Architecture
Building**

**Level E -
Third Floor**



Changes since 2008
(none)

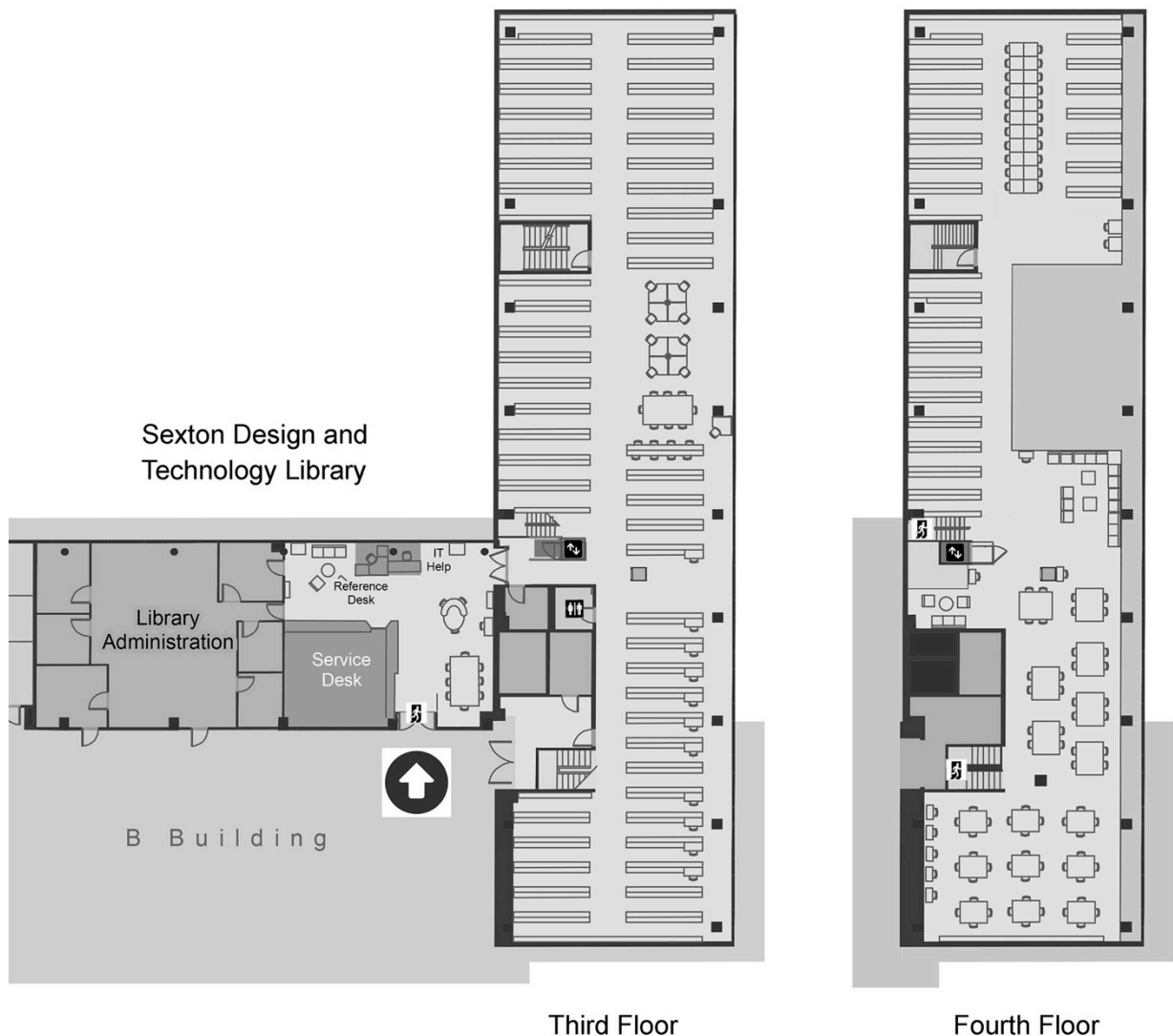


0 4 8 25 ft.

3.8 Information Resources and Information Technology

3.8.1 Type of Library

Sexton Design and Technology Library serves the needs of the Faculty of Architecture and Planning and the Faculty of Engineering. The Library is one of five in the Dalhousie University Library System. The Library is located on the third floor of Dalhousie's Sexton Campus Administration Building, a five-minute walk from the Medjuck Architecture Building.



The Resource Centre (RC) is a heavily used and valuable site for reference material and research assistance, especially for local material not held in the academic library. It is located in the Medjuck Architecture Building. While space continues to be a problem, the use of materials and space far exceeds what might be expected for this modest area.

3.8.2 Library Self-assessment

Since the last APR, a number of identified weaknesses have been corrected and/or seriously addressed. Specifically, improvements have been made in funding, book collections, and digital image collections.

Library Collections

Context

The library collection and the visual resources and other non-book collections are appropriate to support the mission, goals, and curriculum of the architecture program(s) and its parent institution. The architecture collections of Sexton Library and the Resource Centre support the educational and research needs of undergraduates, graduates, and faculty in the School of Architecture. The collections also serve the Atlantic academic community for related study, interdisciplinary work, and cultural enrichment. The collections are available as a resource for practicing architects in the community and for the general public.

Funding

Recent funding levels for book purchases and journal subscriptions have fluctuated greatly. Through 2010 and 2011, spending on books was steady at between \$46,000 to \$50,000, rising to \$57,000 in 2012. In 2013, due to severe negative pressures affecting the entire library budget, this fell to \$3,000, augmented by \$700 from Sexton Library's endowment fund. Likewise, serials spending was steady at \$17,000 in 2010 and \$18,000 in 2011, rising to \$24,000 in 2012 with the addition of Material ConneXion to the list of subscriptions. In 2013 the library was forced to cancel many subscriptions, primarily where print journals duplicated digital holdings, with the result that serials spending in architecture was reduced to just over \$15,000. In 2014/2015, Sexton Library's acquisitions budget looks stable, with no serial cancellations predicted. The Architecture Librarian manages serials and monograph funds.

The Resource Centre does not have a separate collection budget; costs are administered under the general Faculty budget. Requests for material needed through the term, such as maps and aerial photographs, are charged to a specific course, and requests for additional equipment are submitted annually.

Subject Coverage

Current and retrospective materials are collected in a wide range of architectural subjects, including design, history, theory, criticism, preservation and restoration, housing, community design, urban design, computer applications, and professional practice. The collections include related subjects such as landscape architecture, planning, building and construction, and interior design.

The library has purchased additional architecture content through a recent subscription to the Ebsco Academic eBook package, which provides Dalhousie users with access to more than 100,000 separate titles, including 1000 books on architecture and related topics. Sexton Library funds were not used for this purchase.

In both the library and the Resource Centre, the current and retrospective breadth, scope, and complexity of subjects related to architectural practice, history, theory, and criticism are sufficient. The library's collection is also adequate to support the level of faculty research and professional development specified in institutional goals.

Levels of Coverage

Sexton Library's collecting levels are based on those prescribed by the American Library Association. They have been assigned according to current teaching and research in the Faculty of Architecture and Planning and are subject to modification whenever course or program changes are implemented.

The Resource Centre supports teaching with a comprehensive collection of 35mm slides and digital images covering ancient through modern architecture. Building plans and other visual resources are collected selectively, with an emphasis on local works.

Number of Volumes

The collection of architecture and related materials in the Sexton Library has grown from an estimated 28,000 in 2003 to 36,400 in 2014. The NA collection has increased from 8,090 in 2003 to approximately 14,000 in 2013. Volume counts are complicated by eBooks, which are not given call numbers. In June 2014, Dalhousie's electronic collections included about 2,000 eBooks with "architecture" as a subject heading.

The Resource Centre has a small collection of selected reference books (100) for quick consultation; however, the collection policy does not specify the collection of books.

Serials

As of June 2014, Sexton Library subscribes to 46 of the 53 AASL Core Serial titles (list revised in 2009), and 13 of the 42 supplementary titles. Our holdings are further augmented by titles made available through full-text databases, such as Ebsco's Academic Search Premier, JSTOR and Project Muse, and publishers' journal packages, such as Sage Journals Online, Wiley Online Library and Elsevier Science Direct. By way of these various digital resources purchased by the Dalhousie Libraries, we have access to current and archival content from more than 100 architectural serials.

The back files of many of the basic titles are complete; e.g., we hold *Architectural Record* from 1891 and *RIBA Journal* from 1893. There are approximately 11,000 bound volumes of architecture serials.

Periodical indexes available in Sexton Library include Avery Index to Architectural Periodicals, Design and Applied Art Index, and RIBA Online Catalogue. Several other indexes are available in related areas, such as Ebsco's Environment Complete and Thomson Reuter's Web of Science, which combines Science Citation Index, Social Sciences Citation Index and Art and Humanities Citation Index into a single interface.

Since 2008, Sexton Library's Digital Initiatives Group has been heavily involved in digitization activities, the most notable of which are projects to digitize back issues of *The Journal of the Society for the Study of Architecture in Canada* and the *Journal* published by the Royal Architectural Institute of Canada. Working in partnership with the Faculty of Architecture and Planning and the publishers of the journals, the goal is to provide open and free web access to all issues of both publications in high-quality PDF format. Organizing and running these projects demands considerable technical expertise and staff time, and involves a variety of procedures, such as scanning, digital clean-up, OCR, the addition of metadata to the digital files, long-term preservation, and stable web access. Sexton's work on the SSAC journal project ended in 2011 with the upload of the last journal back issue (current issues are now being produced in digital format by the Society). As of June 2014 the RAIC project was roughly 30% complete and is ongoing. Further details on these and other SEXTONdigital projects, as well as access to the RAIC and SSAC digital archives, are available on the SEXTONdigital website: <http://sextondigital.library.dal.ca>.

The mandate of the Resource Centre does not include the collection of serials.

Visual Resources and Non-book Resources

In 2006, Dalhousie University Libraries purchased a license for ARTstor, which is a subject-based collection of 1.6 million images covering all aspects, genres, and periods of art, design, and architecture. The license permits Dalhousie students and faculty to download images and use them in papers and presentations.

In 2008 the Dalhousie Libraries acquired the initial release of the Archivision Image Library (16,000 images) plus seven subsequent collections released over several years, for a total of almost 60,000 digital images. Archivision images are made available via the LUNA interface.

The Faculty of Architecture and Planning's Resource Centre holds various collections that do not fall under Sexton Library's collection mandate, as well as a collection of basic reference material and information pertaining to local buildings and history. An important service of the RC is the assistance to students studying local subjects, and assistance in accessing those resources. An ongoing project is the digitization of the slide collection, with priority given to images used for lectures, and to local or unique images.

Other non-book resources, such as commercial databases of journal articles and digital images, are managed by the Library.

Access

Books and periodicals at Sexton Library are catalogued according to MARC and AACR2 standards. Sexton Library uses an automated library system to search for free cataloguing copy that is Z39.50 compatible. We also participate in the Canadian National Library Amicus and the OCLC cataloguing networks. There is no cataloguing backlog. Material is normally catalogued and end-processed within one month. Sexton Library is a member of Novanet, a consortium of 15 Nova Scotia university libraries and the 13 campus libraries of the Nova Scotia Community College. Through the Novanet catalogue Architecture students and faculty have access to the holdings of all Novanet libraries: over 2,000,000 unique titles. The catalogue is accessible 24 hours a day.

The RC's resources are readily available, with students having access to the physical space 24/7 for paper maps; many of the commonly used maps and buildings plans are available on the Faculty Intranet, and the hard copy of building plans is available with 24-hour lead time. Course readings are available 24/7.

The Faculty's digital images are made available on the Web through FADIS, a database of images contributed by a consortium of Canadian art and architecture schools. The Resource Centre will digitize images for faculty as required; however, with the collections to which the library subscribes, as well as the vast number of images available on the Internet, managing and supplying digital images is a much decreased function of the Resource Centre.

Other visual resources are indexed in "ResourcesArchPlan," a FileMaker Pro database of plans, maps, vertical file material, books, and theses in the Resource Centre. This database is also available on the Web via a link from the School's website. The materials indexed in the database are accessible Monday–Friday, 9:00–5:00.

Conservation and Preservation

The architecture collection is housed on standard metal library shelving in the main Sexton Library. Worn or damaged materials are replaced or repaired.

Plans are rolled and wrapped in protective paper, with the edges taped to prevent tearing, and housed in a secure location. Most maps are stored in a hanging file cabinet. Some other maps are rolled or, where possible, stored flat.

Policy Statements

There is a Sexton Library Collections Policy that reflects the Faculty's mission. It is updated and revised as changes in the curriculum and research program occur.

There is also a draft Collection Policy for the Faculty of Architecture and Planning Resource Centre. This policy awaits Faculty approval.

Library Services

Reference

During the academic year the Sexton Library Reference Desk is staffed 43.5 hours a week: Monday–Friday, 8:30–4:00, and Saturday–Sunday, 2:00–5:00. Reference assistance is also available by phone (902-494-3285), by e-mail (ian.colford@dal.ca), and through Novanet's Live Help service. Sexton Library's reference collection is available during the library's open hours: 103 hours a week. The website provides 24/7 access to many digital reference and research aids, including *Avery Index* and *The Grove Encyclopedia of Classical Art and Architecture*.

The Resource Centre is open to students 24 hours a day; the slide collection Monday–Friday, 9:00–5:00. The Curator is normally present whenever the Resource Centre is open, so reference service is available informally during most working hours. Reference service is also scheduled two hours per day, or by appointment. The Curator provides reference service at the Sexton Library 4 hours a week.

Bibliographic instruction

The Architecture Librarian and the Visual Media Librarian are available for resource/library orientations and for individual or group instruction in information research methods. Basic orientation is held at the beginning of the term for incoming students. Classroom and subject-specific research methods workshops can be arranged upon request as scheduling permits. The RC produces its "Guide to the Resource Centre" each year.

Access to Collections

Collections in the Sexton Library and the Resource Centre are barrier-free, with the exception of the Library's Special Collections (rare and fragile books) and Basement Storage, from which materials are retrieved upon request. Course reserves and frequently consulted reference materials are available during the library's open hours, 103 hours a week. Web resources are available 24 hours a day. Resource Centre reserve material is available 24 hours a day, with the exception of especially valuable material, which is available only during the Curator's reference hours (two hours daily).

Circulation

Loan policies are established for various categories of materials and borrowers; e.g., the loan period for books is three weeks for undergraduates, while graduates are eligible for a term loan period.

Document Delivery services are completed at no charge to Dalhousie faculty, staff, and students. The library absorbs all costs, which are, on average, \$10.00 per item.

Loan policies in the Resource Centre allow students to borrow materials for presentations. Loan periods are either 24 hours or one week.

Convenience

During the academic term the library is open 103 hours a week. Hours are somewhat reduced in the summer. The reference desk is open 46 hours a week. The online catalogue and electronic databases and collections are available 24 hours a day.

Since 2008 the Dalhousie Libraries have subscribed to a web service called LibGuides, which Dalhousie librarians use to create a collection of subject-specific library guides that students and faculty can consult 24/7. The guides list basic library information, along with recommended library and web resources, and provide links to instructions on how to use them. One of the chief advantages of the LibGuides service is the ease with which the guides can be updated. The guides enhance and enrich the Library's instructional program. The URL for the Architecture guide is: <http://dal.ca.libguides.com/architecture>.

The Resource Centre is staffed 32.5 hours a week. Faculty have access to all material 24 hours a day. Students have access to slides and vertical files during regular office hours. Course materials and architecture reference books are available 24 hours a day.

Current Awareness

Library users can subscribe to Sexton's New Acquisitions RSS feed (<http://tinyurl.com/nqlhvc8>) to have a list of new books delivered to their e-mail inbox. The books themselves are put on display in the library on a separate shelf for one week before being incorporated into the regular collection.

Cooperative Agreements

Sexton Library has resource sharing agreements with Novanet member libraries, University of New Brunswick, and Memorial University of Newfoundland. All Dalhousie Libraries are members of the Council of Atlantic University Libraries (CAUL). Our students can take

advantage of basic services at any of the CAUL member libraries by using their Dalhousie ID card.

Academic integrity is covered under the general Dalhousie University policy.

3.8.3 Library Statistics Report

Library Collection Expenditures for Architecture

Type of collection	No. of volumes (as of June 2014)	Expenditures 2010/2011	Expenditures 2011/2012	Expenditures 2012/2013
Books	36,400	\$46,140	\$49,808	\$3,387
Periodical subscriptions	62	\$17,619	\$24,356	\$15,371
Periodical volumes	11,000			
Microforms	16,000			
MArch theses (1998 onward)	406			
Digital images	1,660,000			
Total		\$63,759.00	\$74,164.00	\$18,758.00

Library and Resource Centre Staff Expenditures

Note: These figures represent the total staff of the Sexton Library plus the staff of the Resource Centre

Types of positions	Number of individuals (incl. part-time) 2012/2013	Expenditures 2010/2011	Expenditures 2011/2012	Expenditures 2012/2013
Librarians, Curator and Administrator	4	\$310,512	\$315,796	\$346,706
Para-professionals	2	\$66,888	\$68,064	\$71,154
Clerks	5	\$171,463	\$176,778	\$187,685
Student assistants	8	\$52,839	\$55,953	\$58,801
Volunteers	0	0	0	0
Total	19	\$601,702	\$616,591	\$664,346

Library Staff

Structure

The Architecture Librarian is a member of the staff of Sexton Library. At present, Ian Colford performs this role. While there are no other formal arrangements, the Architecture Librarian is considered to be part of the Faculty of Architecture and Planning's educational team, and he is included as needed in planning exercises.

The Resource Centre's Visual Media Librarian reports to the Dean, Faculty of Architecture and Planning. She works in consultation with the Directors of the Schools of Architecture and Planning and the Architecture Librarian.

Numbers

Because the Architecture collection is part of the main Sexton Library, the collection and services are managed by staff that look after the entire collection. There are sufficient staff to successfully manage the library collection and services.

The Resource Centre has one full-time staff member, Anita Regan. This staffing is sufficient to successfully manage the Resource Centre collection and services. Other staff, including student assistants, are hired on a contract basis, as money is available. This additional staffing is sufficient. To fulfill the cataloguing and digitizing duties, additional staff, perhaps on a part-time basis, would be an asset.

Professional Status

The Sexton Library has sufficient librarians with graduate degrees in library or information science and with subject expertise in architecture or closely related fields. All of the Dalhousie librarians, including the Architecture Librarian, have Master of Library and Information Science (MLIS) degrees. Ian Colford has 29 years of experience as a librarian, serving in the past year as the Architecture Librarian. For many years he was the Dalhousie Libraries' Associate University Librarian for Collections. Librarians at Dalhousie University have faculty status.

The Resource Centre's Visual Media Librarian has an MLIS degree, subject expertise in architecture and planning, 13 years experience cataloguing and curating images, and 16 years reference experience. During the academic year, she works two reference shifts per week (4 hours) at the Sexton Library.

Support Staff

The library has sufficient paraprofessional, clerical, and student staff; however, it needs to maintain current staffing levels and replace staff who retire. In the library there are 14 support staff, including students and grant-paid employees. We also employ two interns per year from the MLIS program at Dalhousie. We host one unpaid practicum student from the Nova Scotia Community College Library Technician program every spring. There is no permanent support staff in the RC; therefore, student assistants are hired each term.

Professional Development

There are many opportunities available for development and continuing education. One of the library's operating budget accounts is intended for continuing education and staff training. The Faculty provides funds for the professional development and conference registration fees of faculty and staff members. As well, in accordance with the terms of the faculty contract, the university sets aside a certain amount for librarian travel each year. Locally there are many continuing education courses available at all levels.

Salaries

Salaries are set by Dalhousie University collective agreements with the Dalhousie Faculty Association and the Nova Scotia Government and General Employees Union, and are commensurate with all comparable positions in the institution.

Facilities

Space

The Library offers group and individual study areas for approximately 188 students, up from 150 when the last APR was produced, in 2008. Over the past few years, the library space has been refurbished to provide more attractive and functional areas. In the spring of 2013 we added a laptop study space, offering both stool and desk-height study areas. Soon after, we instituted a silent study space, with 24 individual desks. We also have two big wooden tables in the library's lobby area, which students can reserve for group discussion and work. The library also has 15 Learning Commons computers for student use.

The Library's location is convenient for faculty and students, allowing us to be intimately connected to the learning and research process. The space, however, is small and just adequate for all activities and services. It is a challenge to accommodate the desired amount of group and individual study space. The library plans to create a bookable group study room in Winter 2015.

The library provides an attractive, welcoming environment for users and staff. We are working with the university on a renovation of the circulation/reference area, to be completed in Winter 2015. There are future plans to improve environmental control for the library and its collections by replacing the windows and installing air conditioning.

The Resource Centre was moved to a larger, newly renovated space in 2012. The new space is conveniently located on the main floor of the Medjuck Architecture Building. This move

has resulted in a larger work area for students. The space for all activities and services is adequate. There are also proper environmental controls for the collections.

Equipment

The library's storage systems for all types of materials are sufficient and appropriate. The library's equipment (photocopiers, microfilm reader/copiers, slide viewers, projectors, and computer workstations) is also adequate for users and staff. It includes three photocopiers and one book scanner. We participate in the University's DalCard system, whereby students encode their student ID with funds that can be used in the library to pay various charges, including photocopying, printing, and fines.

Our Learning Commons has 15 workstations equipped with the same software as in the Faculty of Architecture and Planning's computer labs. The library's lab also has a duplex printer and three flatbed scanners for student use.

The Resource Centre's storage systems for all types of materials are sufficient and appropriate. It has an excellent work space with sufficient equipment for users and staff: a large, easily accessible table for map and drawing work, a light table, two student computers with a complete suite of software for both Mac and PC, a slide viewer, and a colour 11 x 17 scanner. There is also office equipment for student use, including a Cerlox binding machine, photocopier, staplers, and paper cutter. Audiovisual equipment, such as digital projectors, is available from the University Audiovisual Centre.

Furnishings

The library has sufficient and appropriate workstations for users and staff. The library can seat about 188 students. Furniture consists of a mix of group tables and chairs, individual carrels, and soft seating, including adequate lighting and electrical supply.

Heating and ventilation in the library continue to be inadequate, but some improvements are being made and more are anticipated. In the summer of 2013 the library purchased four stand-alone air conditioning units to ameliorate the heat in the lobby/circulation and office areas. In July 2014 a series of 19–21 ceiling fans were installed on the mezzanine level of the library to help offset the heat in this upper area. Central air conditioning may be coming in the near future, once the library's old, inefficient windows are replaced. Lighting and electrical supply are adequate.

The Resource Centre has sufficient and appropriate workstations for users and staff, including adequate lighting, electrical supply, heating, and ventilation.

Security

The entire building where the library is located is protected by Dalhousie Security. Fire doors are alarmed. There is a disaster plan in place for all Dalhousie libraries.

The Architecture building has restricted keypad entry after office hours for faculty, staff, and students. Digital images are backed up on external hard drives.

Budget, Administration, and Operations

Funds

Library funds are obtained primarily from institutional allocation, supplemented by gifts and a small endowment fund. Under the direction of the University Librarian, the Head Librarian at Sexton Library has authority for overall budget expenditures. The Architecture Librarian has authority for the Architecture collection budget.

Funds are not allocated specifically for the Resource Centre but are part of the larger Faculty budget.

Evidence of Planning

Sexton Library has a written mission statement. Each year Sexton staff meet to plan for the upcoming year and to produce a set of goals. As well, Sexton Library is a partner in the University Library System's strategic plan. The Dalhousie Libraries' strategic plan is available at <http://tinyurl.com/n39qdma>.

There is a collection policy that is amended according to changes in the curriculum. Furthermore, whenever a new academic program or course is proposed, the library must submit a library assessment describing the resources needed to provide support for the program or course.

The Resource Centre supports the goals and strategic plan of the Faculty of Architecture and Planning. The Curator position is evolving to include website updating and some GIS capabilities as the needs of the students and faculty change.

Inter-institutional Relationships

The Head Librarian at Sexton Library is a member of the Faculty of Architecture and Planning, and the Architecture Librarian regularly teaches library orientation and research methods in various courses offered by the Faculty. Sexton Library is part of the University Libraries system, which includes the Killam Library (arts, social sciences, management, sciences, and computer science), the Law Library, the Kellogg Library (health sciences), and the MacRae Library (agriculture). All Dalhousie libraries are members of Novanet, a consortium of university and community college libraries in Nova Scotia that share a library computer system.

The Faculty's Visual Media Librarian works in cooperation with the Sexton Library and the other libraries at Dalhousie. The Resource Centre contributes to FADIS, a Canadian digital image consortium that includes many Canadian art and architecture schools.

Efficiency of Operations and Services

The Sexton Library is efficient and effective, while also being responsive to the needs of the community.

The Resource Centre retrieves building plans the same day or within 24 hours, maintains an online collection of digital materials, supplies reference service Monday to Friday, and is responsive to the individual needs of students and faculty members.

Participation of Faculty and Students

There is a university-wide Senate Library Committee with student representation and elected representatives from each Faculty. As well, each department on the Sexton Campus has a library representative who liaises with the particular librarian subject specialist. Finally, the Head of the Sexton Library attends Architecture and Engineering Faculty meetings to give a library status report and answer questions.

We strive to be mindful of our purpose: "to serve the students, faculty, researchers and practitioners of Nova Scotia." Therefore, when changes are proposed to policies that will impact library users, we normally hold focus groups or conduct surveys. For example, when considering increasing hours of service, we conducted a survey to determine the service hours that students need.

3.8.4 Information Technology

Hardware Facilities

There are five "studio labs" distributed through the Medjuck Architecture Building, with most adjacent to, or forming part of, student studio areas. They are open to students 24 hours a day, 7 days a week. There are currently 36 lab workstations. All are 21.5-inch Apple iMacs equipped with a 2.5-GHz Intel Core i5 processor, 8 GB of RAM, 500 GB internal hard drive, DVD-RW drive, and built-in camera. They were upgraded to MacOS 10.9 (Mavericks) in 2014, which will permit much faster updates to software. They are networked via a high-speed ethernet system. These computers were supplied by the university in June 2012 and will be replaced in June 2015 or June 2016.

Peripheral lab devices include five 30-bit single-pass flatbed scanners, two 32-bit slide scanners (one with batch feeder), four laser printers (one for 11" x 17" output), and one colour laser printer (up to 11" x 17" output). Our print lab has a colour laser printer (up to 11" x 17" output), one HP colour bubble jet printer (up to 24" wide x unlimited length output), one Canon

colour bubble jet plotter (up to 36" wide x unlimited length output), one colour Canon bubble jet plotter (up to 44" wide x unlimited length output), and one flatbed scanner (up to 44" wide x unlimited length). A 3D printer can make objects up to 15 x 15 x 20 cm. Digital still and video cameras are also available.

The Faculty has permanent data projectors in the auditorium (HA-19) and three classrooms (Rooms HA18, HB2, and HB4). Plans are underway to add two more, in HB3A and the Planning studio area (HB3). Two portable data projectors are available for teaching and student presentations. One Apple MacBook notebook computer can be signed out for presentations. Three 55-inch flat-screen portable monitors are also available for use.

Two numerically-controlled machines are also available: a Universal laser cutter (up to 17" x 32" output) and an XYZ 4004 CNC machine (up to approximately 5' x 5' output).

Software Facilities

The lab computers are set, by default, to use MacOS software, but can be restarted as Windows computers for access to AutoCAD products and ArcGIS. The labs support a wide range of software, including five CAD/modeling programs, three computer graphics programs, GIS software, and a variety of software for desktop presentation, publishing, web publishing, animation, music, and multimedia. All software is fully licensed, often by a university site license, and most is fully supported.

Network Connections

All classroom spaces in the Medjuck Architecture Building are provided with Internet connections. The studios have built-in Internet connections at, or near, all studio places around the perimeter and in the studios above the Exhibition Room, providing network coverage to 75% of student spaces. The building is equipped with a high-speed wireless network, although its coverage in some areas of the building, such as the studios and larger classrooms, can be slow, depending on the number of computers connected.

All Dalhousie libraries provide multiple network connections for student computers, plus public connections in some of the study spaces. Once a student has registered her/his network card with Information Technology Services (ITS), it is recognized at all public connections at Dalhousie. Student printing services are also managed on a university-wide system, using the student's DalCard. Dalhousie student residences are also fully networked.

Staff Support

Computer hardware and software support is currently provided mostly by two full-time staff members. Patrick Kelly is responsible for university-owned hardware and software, as well as providing support to faculty and staff. Ken Kam's main areas of support are printing, photography, and video. ITS also maintains a help desk service for students on Sexton Campus. It is located in the Sexton Library and is open Monday–Friday, 8:30–4:30.

Action Plan and Funding

When the computers in the student labs are replaced every few years, the Faculty of Architecture and Planning normally purchases the older computers from the leasing company for faculty and staff use. This hardware renewal is a high priority in the non-space capital budget for that year.

The only software used by staff that requires significant financial support is FileMaker Pro, which is used for the Faculty's customized database for student and alumni information. Due to the size and complexity of the database and its reports, we are currently keeping the office staff's computers at MacOS 10.6. A newer Mac operating system would require a newer version of FileMaker and a major rewrite of the entire database.

The student lab computers are expected to be upgraded to MacOS 10.9 in late 2014. The software on the student lab computers is either provided by a Dalhousie site license or is an educational version that is available to the Faculty at little or no cost.

3.9 Financial Resources

3.9.1 Program Budget

University financial resources provided to the Faculty of Architecture and Planning are reallocated internally to the School of Architecture, School of Planning, and Faculty services. Total financial resources are comprised principally of government funding and enrolment related budget allocation (apportioned by formula) [a].

The Faculty of Architecture and Planning will depend increasingly on revenue-generating efforts to help sustain and develop activities: i.e., Alumni & Development; campaign publications; and co-operative and development initiatives (CIDA - IYIP Gambia; Botswana) [b].

Faculty of Architecture & Planning [a]	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Total operating budget (000's omitted)	\$3911	\$4114	\$4278	\$4126	\$4391	\$4388
Additional revenue from other sources [b]	305	354	275	373	297	104

School of Architecture only	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Total operating budget (000's omitted)	\$1980	\$2148	\$2216	\$2135	\$2295	\$2332
Other revenue - School of Architecture	56	27	4	4	0	4
Academic salaries	-1501	-1614	-1651	-1573	-1736	-1751
Non-academic salaries	-142	-145	-148	-150	-137	-122
Benefits, pensions, scholarships, etc.	-238	-257	-295	-277	-289	-313
Discretionary funds operating budget	-155	-160	-126	-139	-133	-150

Notes

[a] Government revenue is allotted to the University and distributed to Units within the University by institutional formula. The allocation of enrolment revenues at Dalhousie is derived by an Enrolment Budget Allocation (ERBA) formula.

[b] Revenues from other sources at the Faculty level may include co-op fees from students; internal transfer; development & co-operative initiatives; and budget carry-forward.

3.9.2 Endowments

Most endowments are used for scholarships and bursaries. Some are exclusively for Architecture; the rest are shared with Planning, Engineering, and/or Computer Science.

Faculty or School	Purpose	Endowment	Market Value (March 2014)	Total
Architecture	General	Hart Memorial Architecture Fund	\$77,195	
	Scholarships and Bursaries	Architecture Alumni Fund	\$6,767	
		Architects' Association of New Brunswick Scholarship	\$25,259	
		Medjuck Scholarship - Architecture	\$46,503	
		George W. Rogers Award	\$31,193	
		William Lydon Memorial Scholarship	\$41,269	

		John D. Watson Memorial Scholarship	\$114,284	
		Architecture Design Fund	\$7,993	\$350,463
Architecture and Planning	General	Kitz Fund	\$39,545	
		Faculty of Architecture and Planning General Purpose Fund	\$134,032	
	Scholarships and Bursaries	Bruce and Dorothy Rosetti Architecture Scholarship	\$673,725	
		Lezlie Oler Prize in Community and Environmental Design	\$27,963	
		Exxon Mobil Canada Architecture and Planning Scholarship	\$201,170	
		H. Allen Brooks Traveling Fellowship	\$334,238	
				\$1,410,673
Architecture and Engineering	General	Robert H. Winters Fund	\$271,489	
	Scholarships and Bursaries	Adjeleian Fund	\$25,986	\$297,475
Architecture, Engineering, and Computer Science	General	Sexton Award for Teaching Excellence	\$116,554	
	Scholarships and Bursaries	Archibald Bursary Fund	\$15,042	
		Dr. Ruth Goldbloom Fund	\$20,948	
		Michael Johnson Memorial Bursary	\$21,792	
		Aliant Ambassadors Scholarship	\$28,062	
		Newfoundland and Labrador Alumni Scholarship	\$124,765	
		President's Associates Scholarship Fund	\$2,051	
		Rod Shoveller Bursary	\$60,357	
		Walter G. Stanfield Scholarship Fund	\$130,006	
		Student Medical Relief Fund	\$39,494	\$639,070

3.9.3 Funds for Faculty Research and Professional Activities

Dalhousie University and the Faculty of Architecture and Planning make available various funds to support faculty research and professional development.

The University allocates funds, approximate to the numbers of faculty (DFA) members per Unit, for travel support on research or professional activities. The School of Architecture also may allocate operating account funds to support these activities. The Dean of Architecture and Planning allocates additional amounts for DFA member travel.

School of Architecture	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
DFA travel funds distributed	\$10,710	\$11,315	\$10,800	\$10,805	\$11,485	\$12,778
Faculty travel funds distributed	\$10,710	\$11,315	\$10,800	\$6,800	\$7,080	\$7,080
Total	\$21,420	\$22,630	\$21,600	\$17,605	\$17,485	\$19,858

In addition to University travel support, the University provides annual Professional Development Allowance funding for professional expenses that are not otherwise reimbursed by the University.

Professional Development Allowance	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Amount allocated	n/a	n/a	n/a	\$4,500	\$4,635	\$7,445

A portion of the Dean's discretionary budget has been set aside to provide financial encouragement for staff and faculty career development. These funds are intended to support travel related to attendance at conferences, workshops, and study sessions in places other than Dalhousie University. Faculty members receiving travel support under the terms of the Collective Agreement may apply for additional support from this fund, up to a matching amount.

3.9.4 Funds for Scholarships

The following annual awards are funded by endowments, donors, the School of Architecture, and the university. The total amount in 2014 is \$130,100; six years ago it was \$104,150.

BEDS Scholarships

Level	Scholarship	Criterion	Value
B1	Mazankowski Foundation Entrance Scholarship	for academic record	\$1,100
B1	President's Associates Entrance Scholarship	for academic record	\$1,000
B1-M5	Lezlie Oler Prize	for an urban improvement proposal for Halifax	\$1,000
B2-M6	Highbury Foundation Bursary	for financial need	\$5,000
B2-M6	Architecture and Planning Bursaries	for financial need	\$5,000
B2-M6	Maritime Hobbies and Crafts Bursary	for financial need	\$500
B2	Shaw Group Environmental Design Scholarship	for Design record and Atlantic Canadians	\$2,500
B2	Medjuck Architectural Design Scholarship	for Design record	\$2,000
B2	Newfoundland and Labrador Assoc. Architects / William Ryan Scholarship	for academic record and residents of Nfld. and Labrador	\$2,000
B2	Year 3 Portfolio Prize	for a design portfolio	\$100
B3	Harry Kitz Fund	for a community project in Halifax	\$1,000
B4	Aliant Ambassadors Scholarship	for academic record	\$1,000
B4	Alumni Family Scholarship	for children of TUNS alumni	\$1,750
B4	Birks Family Bursary	for financial need	\$1,000
B4	Nfld & Lab. Alumni Scholarship	for former residents of Nfld./Labrador	\$1,000
B4	Rod Shoveller Memorial Bursary	for participation in athletics	\$500
B5	Barry and Margo Johns Family Bursary	for financial need	\$1,000
B5	Salvatore Paradise Scholarship	for practical design & financial need	\$4,000
B5	Year 4 Portfolio Prize	for a design portfolio	\$100
Total	BEDS		\$31,550

MArch Scholarships

Level	Scholarship	Criterion	Value
M1	Architects' Association of New Brunswick Scholarship	for former New Brunswick residents	\$1,000

M1	Barry Johns Scholarship for Design	for Design record in BEDS program	\$1,000
M1	William P. Lydon Memorial Scholarship	for academic record and community service	\$1,200
M1	NSAA - Ojars Biskaps Award	for design portfolio, academic and drawing ability	\$1,000
M1	George W. Rogers Award	for academic record and professional potential	\$1,000
M1	Salvatore Paradise Scholarship	for practical design and financial need	\$4,000
M2	Design and Construction Institute Engineering and Architecture Scholarship	for commitment to design and construction in Nova Scotia	\$1,000
M2	William Nycum and Associates Scholarship	for commitment to design	\$1,000
M2	Bruce and Dorothy Rosetti Scholarships	for supervised research	\$21,000
M2	John D. Watson Memorial Scholarship	for green design, sustainability, new technologies	\$2,500
M2–M6	Faculty of Graduate Studies Scholarships	for academic record (min. 3.7 GPA)	\$58,000
M3	Nova Scotia Association of Architects Scholarship	for Nova Scotia permanent residents	\$1,000
M6	Steel Structures Education Foundation Scholarship	for excellence in steel design	\$3,000
M6	Royal Architectural Institute of Canada Medal	for highest academic record or best design thesis	medal
M6	Royal Architectural Institute of Canada Honour Roll	for top ten percent of graduating class	certificate
M6	Henry Adams Medal	for second highest academic record	medal
M6	Henry Adams Certificate	for third highest academic record	certificate
M6	Nova Scotia Association of Architects Prize	for awareness of architect's responsibility to society	\$100
M6	Alpha Rho Chi Medal	for leadership and service to the school	medal
M6	Alumni Memorial Award	for service to the school	\$250
M6	School of Architecture Thesis Prizes	for an outstanding design thesis	\$500
M6	Adjeleian Award in Aesthetics of Structures	for aesthetic and structural application in a project	\$1,000
M6	H. Allen Brooks Traveling Scholarship	for a year of travel and study (not awarded every year)	
Total	MArch		\$98,550

Total	BEDS + MArch	\$130,100
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During each degree program, a student also can receive up to \$2,000 from the university's Study/Work International Fund (SWIF) for academic study (field trips, exchange programs, co-op placements) outside Canada.

3.10 Administrative Structure

3.10.1 Dalhousie University Accreditation

Dalhousie University was established by the Statutes of the Province of Nova Scotia (Chapter 24, Statutes of Nova Scotia - 1863, amended). It is a member of the Association of Universities and Colleges of Canada, the Atlantic Association of Universities, and the Association of Commonwealth Universities. It currently has 18,200 students (14,700 undergraduate and 3,500 graduate) and 1,085 faculty members.

3.10.2 Administrative Structures in Dalhousie University and its Faculties

Board of Governors

The Board of Governors of Dalhousie University is responsible for the overall conduct, management, administration, and control of the property, revenue, business, and affairs of the university. The basic responsibility of the Board is to represent the interests of the university in directing its affairs and to do so within the statutes relating to Dalhousie University. The Board carries out its responsibility through a stewardship role and delegates the day-to-day management of the university to the President and the senior administration. The Board also respects the responsibility of the University Senate to adopt policies on academic matters subject to Board approval.

The Board includes three *ex officio* members (University Chancellor, President and Vice-Chancellor, and Chair of Senate), Order-in-Council (twelve members), and representatives from the Dalhousie Alumni Association and Dalhousie Student Union.

Senate

The Senate is the university's senior academic governing body. It is responsible for approving new programs; approving the granting of degrees and diplomas; and managing the reviews of Faculties, Centres, and Institutes. The Senate is responsible for setting academic regulations (including regulations governing student conduct and discipline) that affect the University as a whole. It also establishes the academic calendar.

The membership of Senate consists of elected members from the Faculties (including one from the Faculty of Architecture and Planning) and the libraries; elected student representatives; a representative from the University of King's College; and senior administrators.

Faculties

Subject to the general approval of the Senate, Faculties are responsible for their academic programs, teaching, and research, and for recommending candidates for degrees, diplomas, and university prizes. Faculties are also responsible for their internal academic and administrative structures and procedures, except that all graduate programs are supervised also by the Faculty of Graduate Studies.

Dalhousie University has twelve faculties: Agriculture; Architecture and Planning; Computer Science; Dentistry; Engineering; Arts and Social Sciences; Faculty of Graduate Studies; Health Professions; Law; Management; Medicine; and Science. A Faculty may consist of a single academic unit (e.g., Law, Computer Science) or many academic units (e.g., Arts and Social Sciences, Science, Medicine).

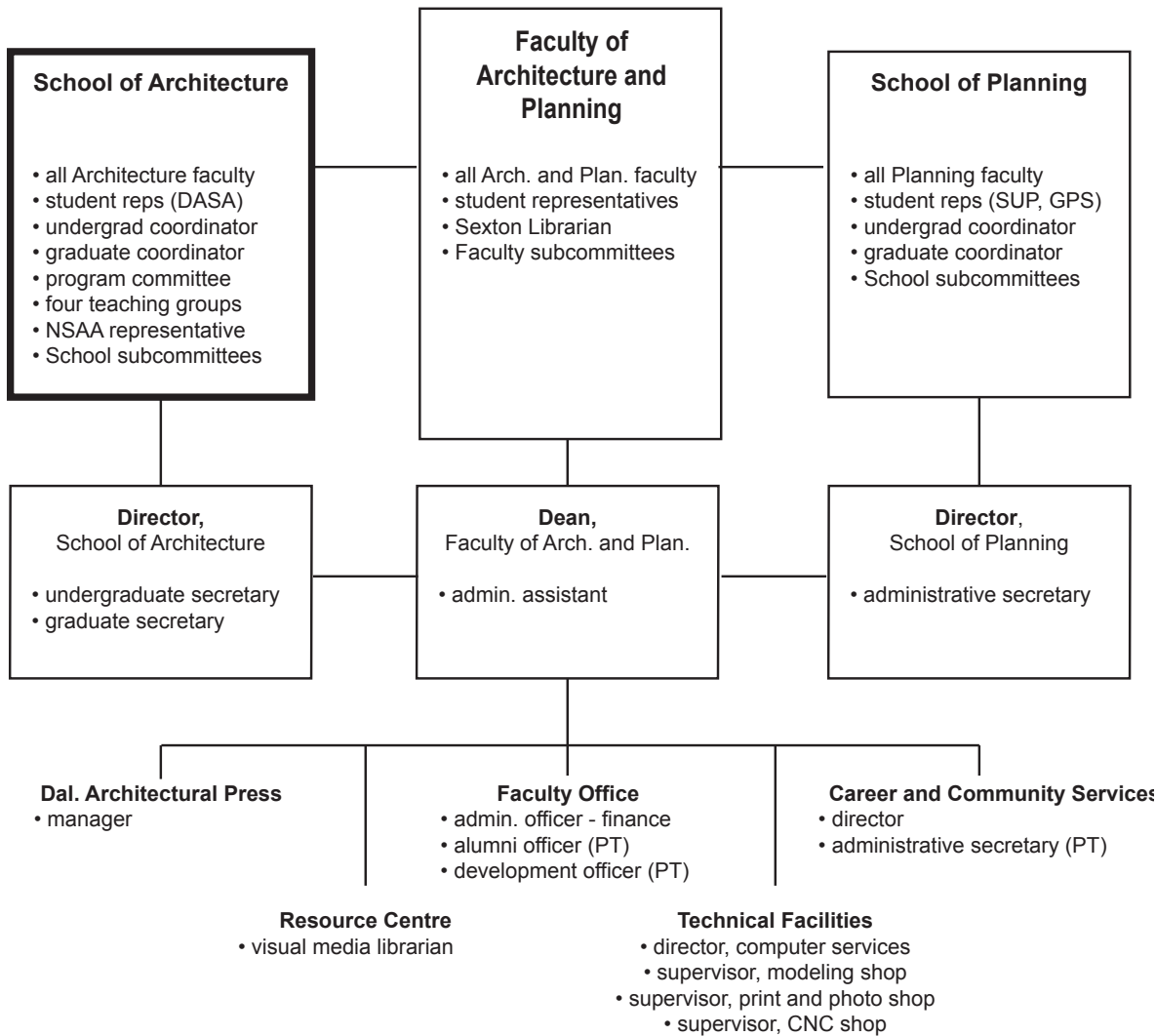
The Faculty of Architecture and Planning is the smallest Faculty in Dalhousie University and it includes only two academic units: the School of Architecture and the School of Planning. The School of Architecture benefits from close contact with the Dean, who in turn has close contact with the upper administration. Although the university's administrative expectations are

disproportionately heavy on such a small Faculty, this is balanced by greater responsiveness and autonomy.

Faculty of Graduate Studies

The Faculty of Graduate Studies is primarily an administrative unit. It facilitates and provides assistance with graduate admissions, program changes, scholarships, bursaries, research and travel grants, thesis submissions, PhD defenses, Killam programs, convocation, postdoctoral fellowships, professional development, and the university's Interdisciplinary PhD Program (IDPhD). The School of Architecture's Graduate Coordinator serves as a liaison with the Faculty of Graduate Studies on day-to-day administration.

3.10.3 Administrative Structure of the Faculty of Architecture and Planning



The Dean is an *ex officio* member of all Faculty and School committees. The Director of the School of Architecture is an *ex officio* member of all School committees. Committee members have voting privileges and receive meeting minutes. Others are welcome to attend meetings as

observers but cannot vote. Each committee elects a chair, which may rotate during the chair's non-teaching term.

Student representatives are full voting members of all academic committees in the Faculty and the School. As dual representatives of both the Dalhousie Architecture Students Association (DASA) and these committees, they are responsible for reporting committee items to DASA, reporting DASA items to the committees, and participating in committee discussions and decisions. Student representatives are expected to maintain confidentiality on topics such as grades and appeals.

Faculty Council

Faculty Council is the uppermost decision-making body in the Faculty of Architecture and Planning. As a committee of Senate, it is responsible to Senate through the Dean and its representative to Senate. Its voting members include all faculty members with a tenured or tenure-track appointment in the Faculty of Architecture and Planning, the Sexton Librarian, four student representatives (two from DASA, one from the Graduate Planning Society, and one from the Society of Undergraduate Planners), and the President of the university (*ex officio*). It is responsible for determining and reviewing the academic policies and priorities of the Faculty of Architecture and Planning, and for monitoring the academic operations of the School of Architecture and the School of Planning. Its general policies and procedures are described in "Guide to Faculty Governance."

Faculty Council has three officers - a Chair, a Vice-Chair, and a Secretary - who are elected from among the voting faculty members for a two-year term. Two regular meetings of Faculty Council are scheduled during each of the three terms. The quorum for a regular meeting is 50% + 1 of the voting members. Minutes are distributed to all members. The following groups and representatives report to the Faculty:

- Dean, Faculty of Architecture and Planning
- Director, School of Architecture
- Director, School of Planning
- Associate University Librarian - Sexton Library
- Standing Faculty committees
 - Faculty Tenure and Promotion Committee
- Student organizations
 - Dalhousie Architecture Students Association (DASA)
 - Graduate Planning Society (GPS)
 - Society of Undergraduate Planners (SUP)
- Representatives to university bodies
 - Senate
 - Senate standing committees with mandatory Faculty representation: Appeals; Academic Programs and Research; Honorary Degrees; and Nominating

Dean of the Faculty of Architecture and Planning

The University's terms of reference for the appointment and review of a Dean are described in the document "Senior Administrative Appointments Policy and Procedures." The current Dean, Christine Macy, has served in this position since 2008. In 2013 she was reappointed to a second five-year term. The Dean's position is at least 75% FTE, leaving some room to teach. A Dean is a member of the Dalhousie University Administrative Group, not the Dalhousie Faculty Association. The Dean reports to the Faculty of Architecture and Planning Council and to the Provost/Vice President Academic.

3.10.4 Programs in the Faculty of Architecture and Planning

The Faculty of Architecture and Planning offers the following degree programs:

School of Architecture

- Bachelor of Environmental Design Studies (BEDS)
two-year pre-professional program, leading to a four-year honours degree
- Master of Architecture
two-year professional program, accredited by CACB
- Master of Architecture (Post-Professional)
one-year post-professional program, currently inactive
- Master of Environmental Design Studies (MEDS)
one-year non-professional program, currently used for a Design-Build option

School of Planning

- Bachelor of Community Design
three-year non-professional program
- Bachelor of Community Design (Honours)
four-year professional program, recognized by Canadian Institute of Planners
- Master of Planning
two-year professional program, recognized by Canadian Institute of Planners
- Master of Planning Studies
one-year post-professional program

3.10.5 Administrative Structure of the School of Architecture

The School of Architecture has an intricate set of committees that encourage participation by all faculty members, based on the courses they teach or School business that needs to be done. A faculty member typically participates on five or six committees each year. This amounts to about 5% of one's time, which is well below the 20% administrative assignment for a full-time faculty member. Most committees include at least one DASA student representative to ensure that the student body is involved in discussions and decisions at all levels.

School of Architecture Committee

This committee includes all faculty members from the School of Architecture, up to seven student reps (two Year 3 BEDS, two Year 4 BEDS, two MArch, and one MArch [Post-Prof.] or MEDS, depending on the academic term), and a representative from the Nova Scotia Association of Architects. It typically meets once or twice per term. The following committees and representatives report to the School of Architecture Committee:

- Director
- Undergraduate/Graduate Coordinator
- Representatives to and from NSAA
- Standing committees
 - Program Committee
 - Design Teaching Group
 - Humanities Teaching Group
 - Technology Teaching Group
 - Professional Practice Teaching Group

- Ad hoc committees
 - Appointments Committee
 - School Tenure and Promotion Committee
- Ethics Review Committee
- Technical Staff
- Dalhousie Architecture Students Association
- Representatives to external bodies
 - Faculty of Graduate Studies Council
 - Association of Collegiate Schools of Architecture (ACSA)
 - Canadian Architectural Certification Board (CACB)
 - Canadian Council of University Schools of Architecture (CCUSA)

Guide to School of Architecture Governance

In 2010 the School of Architecture Committee prepared and approved a new "Guide to School of Architecture Governance," modeled on the Faculty's governance document. It includes two parts:

- Constitution of the School of Architecture Committee
 - functions
 - operating principles
 - membership
 - officers
 - internal procedures
 - amendments to the constitution
 - standing committees
 - ad hoc committees
 - coordinators
 - advisory committees
- Policies of the School of Architecture Committee
 - agenda, reports, minutes, and correspondence
 - additional meeting procedures
 - operation of School subcommittees
 - terms of reference for Faculty Search Committee
 - terms of reference for Faculty Reappointment Committee
 - terms of reference for Tenure and Promotion Committee
 - terms of reference for Director Review Committee
 - terms of reference for Director Search Committee
 - distribution of governance document

Director of the School of Architecture

(Diogo Burnay)

The university's terms of reference for the appointment and review of a director are described in the document "Senior Administrative Appointments Policy and Procedures." The Director's position is at least 50% FTE, leaving some time to teach. The Director is a member of the Dalhousie Faculty Association and reports to the School of Architecture Committee and the Dean. See 3.5.6 for a description of the position.

Undergraduate/Graduate Coordinator

(Stephen Parcell)

The Undergraduate/Graduate Coordinator reports to the School of Architecture Committee. See 3.5.6 for a description of the position.

Executive Committee

The Executive Committee includes the Director and the Undergraduate/Graduate Coordinator. It meets weekly to discuss administrative items.

Program Committee

The Program Committee meets monthly. It includes the Director, Undergraduate/Graduate Coordinator, the chairs of the four teaching groups, and one student representative from the BEDS or MArch program. It is responsible for coordinating the various components of the Architecture program (staffing, courses, resources, etc.) and for developing and reviewing proposals for changes. It also acts on behalf of the School of Architecture to deal with minor but urgent matters, such as the approval of grades.

Teaching Groups (Design, Humanities, Technology, and Professional Practice)

The Architecture curriculum is organized into four streams. A teaching group is responsible for the academic content of each stream. Each group consists of all faculty members who teach a required, core, or elective course in that stream, plus one student representative from BEDS or MArch. The Professional Practice group also includes the Co-op Coordinator (Director of Career and Community Services). The Design Group is also responsible for Representation courses in the BEDS/MArch program.

Each group meets twice per term to review proposals for new courses, to consider substantial changes to existing courses, and to evaluate the whole stream. A new course must be approved first by the teaching group, then by the School of Architecture. A new undergraduate course receives final approval from the Faculty of Architecture and Planning. A new graduate course receives final approval from the Faculty of Graduate Studies.

Term Committees (B1, B2, B3, B5, M1, M2, M5)

All instructors who teach in a particular term meet several times during the preceding two terms to coordinate their courses.

BEDS Admission Committee

It includes all faculty who teach in the Design stream, plus five student reps. It meets once a year, in March, to review BEDS applications.

Transfer Admission Committee

It includes three faculty who teach in the Design stream. It meets every four months to review applications from transfer students.

MArch Admission Committee

It includes three faculty who teach in the Design stream, plus a student rep. It meets twice during the winter term to review MArch applications by external students and senior BEDS students and to award entry scholarships.

Year 3 Review Committee

It includes the Director, six faculty who teach in BEDS Year 3, a student rep, and an external examiner. It meets for a full day, once a year, to review individual design portfolios and grades, to award in-course scholarships, to monitor the Year 3 curriculum, and to make decisions on promotion to Year 4.

Year 4 Review Committee

It includes the Director, six faculty who teach in BEDS Year 4, a student rep, and an external examiner. It meets for a full day, once a year, to review individual design portfolios and grades, to monitor the Year 4 curriculum, and to make decisions on BEDS graduation.

Ad Hoc Committees

The following committees meet as necessary:

- Scholarships and Awards Committees
(three faculty who teach in the related stream)
- Appeal Committee
(two faculty who teach in that stream plus one student rep)
- Faculty Search Committee
(three faculty and one student rep)
- Reappointment Committee
(three faculty who are also DFA members)
- School Tenure and Promotion Committee
(three tenured faculty who are also DFA members)

3.10.6 Administrative Structures in Other Professional Faculties

The Faculty of Architecture and Planning is one of twelve faculties in Dalhousie University. As a professional faculty, it is one of the smaller units in the university - comparable to Law, Dentistry, and Computer Science - but is articulated into two Schools: Architecture and Planning. Our small size enables our Faculty to work easily and collegially to ensure that our needs and interests are well represented at the university level; however, our bifurcation into two units presents some challenges in ensuring optimal use of our resources and, at times, increases administrative duties for faculty members, particularly in tenure and promotion considerations and program reviews.

To illustrate the diverse administrative structures in professional faculties, the academic units and committees in the Faculty of Engineering and the Faculty of Health Professions are compared to those in the Faculty of Architecture and Planning.

Faculty of Architecture and Planning

The Faculty of Architecture and Planning has 370 students (220 in Architecture and 150 in Planning) and 24 faculty members (17 in Architecture and seven in Planning). It consists of two schools, School of Architecture and School of Planning, each with its own Director and administrative committees. At the Faculty level, the Dean's Office includes:

- Dean
- Administrative Assistant to the Dean
- Financial Officer
- Alumni Officer (part-time)
- Director of Career and Community Services
- Director of Faculty Computing
- Manager of Dalhousie Architectural Press

Faculty of Architecture and Planning Council has one standing committee:

- Tenure and Promotion Committee

Faculty of Engineering

The Faculty of Engineering is approximately four times larger than the Faculty of Architecture and Planning. It has 1,600 students and 95 faculty members. It consists of six departments and one school:

- Department of Civil and Resource Engineering
- Department of Electrical and Computer Engineering
- Department of Engineering Mathematics and Internetworking
- Department of Industrial Engineering
- Department of Mechanical Engineering
- Department of Process Engineering and Applied Science
- School of Biomedical Engineering

The Faculty of Engineering has the following officers:

- Dean
- Associate Dean, Undergraduate Studies and Associated Universities
- Assistant Dean, Planning
- Assistant Dean of Students
- Assistant Dean, Co-op
- Director, Core Program
- Heads of Departments
- academic program chairs
- Directors of research centres
- Director, School of Biomedical Engineering

Faculty of Engineering Council has the following standing committees:

- Administrative Heads Committee
- Space Committee
- Faculty Steering Committee
- Undergraduate Studies Committee
- Undergraduate Recruitment Committee
- Graduate Studies Committee
- Appeals Committee
- Tenure and Promotion Committee
- Engineering Research Centres Directors Committee
- Associated Universities Directors of Engineering Committee
- Scholarships and Awards Committee
- Cooperative Education Committee

Faculty of Health Professions

The Faculty of Health Professions is approximate eight times larger than the Faculty of Architecture and Planning. It has 2,500 students and 200 faculty members. It consists of eight Schools and one College, each with a Director:

- School of Health and Human Performance
- School of Health Administration
- School of Health Sciences
- School of Human Communication Disorders
- School of Nursing
- School of Occupational Therapy
- School of Physiotherapy
- School of Social Work

- College of Pharmacy

The Dean's Office includes:

- Dean
- Associate Dean (Research)
- Associate Dean (Academic)
- Financial Manager/Human Resources Manager
- Office Manager
- Manager - Research Support and Special Projects
- Distance Education Manager
- Communications/Marketing/Alumni Officer
- Inter-professional Experience Manager
- Development Officer
- Financial Assistant

The Faculty Council includes the following standing committees:

- Affirmative Action Committee
- Canada Research Chair Committee
- Management Advisory Committee
- Practice Education Committee
- Research Committee
- Tenure and Promotion Committee

3.11 Professional Degree and Curriculum

3.11.1 Program Structure

The professional program totals six years and leads to a Master of Architecture degree. It is a 2+2+2 program, in three parts:

- Years 1 and 2
General studies (two years of general studies (non-architecture courses) in any degree program at a university (or an equivalent combination of university and college courses)
- Years 3 and 4
BEDS: two years (five terms) in the Bachelor of Environmental Design Studies (BEDS) program at Dalhousie University; a four-year BEDS degree is then awarded
- Years 5 and 6
MArch: two years (six terms) in the Master of Architecture (MArch) program at Dalhousie University; a two-year MArch degree is then awarded

Together, BEDS and MArch constitute the professional program. MArch is the accredited degree.

The entire six-year program (BEDS + MArch) includes 58 courses and 190 credit-hours. Professional courses count for 62%; general studies and electives count for 38%. This is close to the 60% / 40% balance specified by CACB. When the six Year 5 core courses are included as options, the balance between required professional courses and non-required courses changes to 49% / 51%.

	Years	Number of courses	Credit-hours for required professional courses	Credit-hours for core professional courses	Credit-hours for electives	Total credit-hours
General studies	1 and 2	20	0		60	60
BEDS	3 and 4	22	67		0	67
MArch	5 and 6	16	27	24	12	63
Total: Years 1–6		58	94	24	72	190
Percentage			49%	13%	38%	
Percentage			49%	51%		
Percentage			62%		38%	

Annual Schedule

The BEDS/MArch program operates on a trimester system (fall, winter, summer) that runs continuously from early September to early August. One class of students is always away on a work term, enabling the School of Architecture to educate more students than the building can accommodate at one time.

Fall	Winter	Summer
Year 1 - General studies		
Year 2 - General studies		
Year 3 - BEDS		Year 4 - BEDS
B1 (academic term)	B2 (academic term)	B3 (academic term)
B4 (work term)	B5 (academic term)	Year 5 - MArch
		M1 (academic term)
M2 (academic term)	M3 (work term)	M4 (work term)
Year 6 - MArch		
M5 (academic term)	M6 (academic term)	

General Studies

The two years of general studies can be done in any university-level subjects. We encourage prospective students to study subjects in which they are liable to do well, so that this builds on their strengths and provides a good academic foundation. Well-rounded personal and academic experience is encouraged, along with experience in drawing, craft, and computer applications. The School's admission brochure notes that undergraduate courses in subjects such as anthropology, art history, literature, mathematics, music, philosophy, and physics are potentially beneficial. The general studies must include two courses in humanities or social science, two approved courses in math or science, and one course that emphasizes written composition. Our students come from a wide variety of fields, which contributes greatly to the breadth of discussion throughout the whole program.

BEDS Program

The BEDS program is a foundation for professional studies in architecture. It consists of four academic terms and one work term. Each academic term includes architecture courses in design, humanities, technology, and representation, maintaining a 2:1:1:1 ratio by credit weight. Each academic term also includes a smaller professional practice course. This balanced curriculum builds students' academic strengths in a cumulative way and permits integration among courses in the various streams. The four-month co-op work term enables direct experience of professional practice. It includes an academic component that complements the four BEDS professional practice courses. All BEDS courses are required; there are no electives. A student must complete all Year 3 BEDS courses before being promoted to Year 4 BEDS. Students who graduate from the BEDS program may apply for admission to the MArch program. All BEDS courses have approximately 65 students. The number of instructors ranges from one (in lecture courses) to five (in Design courses).

MArch Program

The MArch program completes each student's professional studies in architecture. It consists of two academic terms, a double work term, and two more academic terms. The academic terms include required courses, core courses (in which students select course options in the Design, Humanities, and Technology streams), and elective courses. The core courses in Year 5 build on the balanced set of subjects in the BEDS program, ensuring that each student completes the requirements for accreditation. All courses have approximately 12 students per instructor, which permits a participatory seminar format. A student must complete all Year 5 MArch requirements before being promoted to Year 6.

The MArch program is motivated also by the research and practical expertise of faculty members and local professionals. It encourages each student to develop and pursue individual interests through the selection of Year 5 core courses, the choice of electives from the School of Architecture or elsewhere, the choice of a co-op placement in a particular firm or city during the eight-month work term, and a self-initiated topic for a design thesis in Year 6. This gradual focusing encourages depth and direction for subsequent internship and an architectural career.

Graduate courses must be approved in advance by the Faculty of Graduate Studies. During the entire MArch program, a student also can take two "special topics" courses (offered under the generic titles Design Seminar, Humanities Seminar, or Technology Seminar) in topics that have been approved by the School of Architecture but not by Graduate Studies. This enables the School to test a course, then fine-tune it before submitting it to Graduate Studies for approval. It also permits an experimental or one-time-only course to be offered.

MArch Electives

An MArch student may take electives at the School of Architecture, the School of Planning, another Dalhousie department, one of the five other universities in Halifax, or at a university in another city while a student is away on a work term. An elective normally is graduate-level. A maximum of two electives may be an undergraduate course in which the instructor (with approval from the chair of the department, the School of Architecture, and Dalhousie's Faculty of Graduate Studies) has raised the requirements to a graduate equivalent.

3.11.2 Academic Streams

The courses are organized into six streams that are scheduled in the following way:

Year	Term	Design	Humanit.	Techno.	Represen	Practice	elective
Year 1: General studies	Term 1		(humanities / soc. sci.)	(math/ science)			8 other courses
	Term 2						
Year 2: General studies	Term 3		(humanities / soc. sci.)	(math/ science)			8 other courses
	Term 4						
Year 3: BEDS	B1	Design	History	Building Tech.	Represent.	Practice	
	B2	Design	History	Building Tech.	Represent.	Practice	
Year 4: BEDS	B3	Design, Free Lab	History	Bldg Syst. Integration	Represent.	Practice	
	B4	Work Term					
	B5	Design	History	Bldg Syst. Integration	Represent.	Practice	
Year 5: MArch	M1	Design core course	Humanities core course	Techno. core course			1 elective (Free Lab)
	M2	Design core course	Humanities core course	Techno. core course			1 elective
	M3	Work Term					
	M4						

Year 6: MArch	M5	Thesis Preparation	BSI for Thesis	Practice	1 elective
	M6	Thesis			1 elective

3.11.3 BEDS/MArch Curriculum

Course number	Credit-hours	Course title	Enrolment in 2013–14
BEDS - Year 3 - B1 (academic term)			
ARCH 3001	6	Design	63
ARCH 3104	3	Foundations in Architectural History and Theory	59
ARCH 3207	3	Building Technology	62
ARCH 3301	1	Professional Practice	63
ARCH 3501	3	Representation	63
BEDS - Year 3 - B2 (academic term)			
ARCH 3002	6	Design	60
ARCH 3105	3	Architectural History and Theory - 20th Century	56
ARCH 3208	3	Building Technology	59
ARCH 3302	1	Professional Practice	61
ARCH 3502	3	Representation	60
BEDS - Year 4 - B3 (academic term)			
ARCH 4003	3	Design	60
ARCH 4004	3	Free Lab	58
ARCH 4110	3	Architectural History and Theory - 14th-18th Century	57
ARCH 4211	3	Building Systems Integration	59
ARCH 4303	1	Professional Practice	58
ARCH 4501	3	Representation	60
BEDS - Year 4 - B4 (work term)			
ARCH 8892	3	Professional Practice (Co-op Work term)	53
BEDS - Year 4 - B5 (academic term)			
ARCH 4005	6	Design	57
ARCH 4111	3	Architectural History and Theory - 19th Century	52
ARCH 4212	3	Building Systems Integration	59
ARCH 4304	1	Professional Practice	57
ARCH 4502	3	Representation	57

Course number	Credit-hours	Course title	Enrolment in 2013–14
MArch - Year 5 - M1 (academic term)			
ARCH 50xx	6	(Design) - see below for 2013-14 core courses	
ARCH 51xx	3	(Humanities) - see below for 2013-14 core courses	
ARCH 52xx	3	(Technology) - see below for 2013-14 core courses	
	3	(Elective) - see below for 2013-14 electives	
MArch - Year 5 - M2 (academic term)			
ARCH 50xx	6	(Design) - see below for 2013-14 core courses	
ARCH 51xx	3	(Humanities) - see below for 2013-14 core courses	
ARCH 52xx	3	(Technology) - see below for 2013-14 core courses	
	3	(Elective) - see below for 2013-14 electives	

MArch - Year 5 - M3 (work term)			
ARCH 5308	3	Professional Practice (Co-op Work Term)	
MArch - Year 5 - M4 (work term)			
ARCH 5309	3	Professional Practice (Co-op Work Term)	
MArch - Year 6 - M5 (academic term)			
ARCH 5216	6	Building Systems Integration for Design Thesis	
ARCH 9007	6	MArch Thesis Preparation	
	3	(Elective) - see below for 2013-14 electives	
MArch - Year 6 - M6 (academic term)			
ARCH 5311	3	Professional Practice	
ARCH 9008	6	MArch Thesis	
	3	(Elective) - see below for 2013-14 electives	

Course Numbers

The first digit of an ARCH course number indicates whether it is a BEDS Year 3 course (3), BEDS Year 4 course (4), MArch core course (5), MArch elective (6), MArch (Post-Prof)/MEDS course (7), BEDS work term (8), or Thesis (9). The second digit indicates the stream: Design (0), Humanities (1), Technology (2), Professional Practice (3), or Representation (5). Courses have various credit-hour extensions (01–06) that indicate the approximate class hours each week and the appropriate balance of subjects for professional accreditation.

MArch Core Courses in 2013–14

Stream	Course number	Credit-hours	Course title	Enrolment
MArch - Year 5 - M1 (academic term) - Summer 2014				
Design	ARCH 5007	6	Landscape Studio	11
Design	ARCH 5010-1	6	Public Architecture Studio	10
Design	ARCH 5010-2	6	Public Architecture Studio	9
Design	ARCH 5011	6	Coastal Studio	10
Humanities	ARCH 5106	3	International Sustainable Development	9
Humanities	ARCH 5113	3	Technology, Culture, and Society	10
Humanities	ARCH 5114	3	Theory of Conservation Practice	12
Humanities	ARCH 5198	3	Humanities Seminar: Learning	10
Technology	ARCH 5212	3	From Principle to Detail	9
Technology	ARCH 5213	3	Facades	12
Technology	ARCH 5218	3	Site and Material Processes	10
Technology	ARCH 5298	3	Technology Seminar: Sustainable	11
MArch - Year 5 - M2 (academic term) - Fall 2013				
Design	ARCH 5002-1	6	Urban Housing Studio	11
Design	ARCH 5002-2	6	Urban Housing Studio	13
Design	ARCH 5004	6	Urban Systems Studio	12
Humanities	ARCH 5102	3	Housing Theory	13
Humanities	ARCH 5199-1	3	Humanities Seminar: Theory	12
Humanities	ARCH 5199-2	3	Humanities Seminar: Conservation	11
Technology	ARCH 5211	3	Construction Detail	13
Technology	ARCH 5213	3	Facades	12
Technology	ARCH 5219	3	Technology of Heritage Conservation	11

Electives in 2013-14

Course number	Credit-hours	Course title	Enrolment
Electives - Fall 2013			
ARCH 5210	3	Life Cycle Analysis	9
ARCH 6121	3	Architecture and Archaeoastronomy	12
ARCH 6217	3	Product Development in Architecture	13
ARCH 6503	3	Photography in Architecture	11
ARCH 6510	3	Architectural Documentation and Analysis	13
PLAN 5xxx	3	Master of Planning course	5
	3	Extramural (other Dalhousie dept. or other university)	4
Electives - Winter 2014			
ARCH 5103	3	Residential Real Estate Development	8
ARCH 6504	3	Montage in Architecture	12
ARCH 6505	3	Multimedia in Architecture	11
PLAN 5xxx	3	Master of Planning course	2
	3	Extramural (other Dalhousie dept. or other university)	0
Electives - Summer 2014			
ARCH 6002	3	Free Lab	40

Graduate Courses Offered (2008–2014)

The following chart lists all MArch courses in the graduate calendar and indicates how many times they have been offered during the past six years. When the structure of the BEDS/MArch program was revised in 2005, many graduate courses were established to provide an array of graduate topics and to recognize subjects of faculty expertise and research. Since then, most of them have been offered. "N/A" indicates that a course did not yet exist.

Course number, credit-hours	Course title	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14
Core courses - Design (11 courses)							
ARCH 5002.06	Urban Housing Studio	••	••	•	••	••	••
ARCH 5003.06	Adaptive Reuse Studio	•					
ARCH 5004.06	Urban Systems Studio		•	•		•	•
ARCH 5005.06	Material Detail Studio						
ARCH 5006.06	Light Frame Building Studio						
ARCH 5007.06	Landscape Studio	•	•		•	•	•
ARCH 5009.06	Ephemeral Architecture Studio	•					
ARCH 5010.06	Public Architecture Studio	••	••	•••	••	•	••
ARCH 5011.06	Coastal Studio	•	•	•	•	•	•
ARCH 5012.06	Urban Program Studio	n/a	n/a	•	•		
ARCH 5013.06	Design-Build Studio	n/a	n/a	n/a	n/a	n/a	

Core courses - Humanities (13 courses)							
ARCH 5102.03	Housing Theory		•	•	•	•	•
ARCH 5103.03	Residential Real Estate Development			•	•	•	•
ARCH 5104.03	Urban Systems	•	•	•	•		
ARCH 5105.03	History and Theory of Cities		•				
ARCH 5106.03	International Sustainable Development	••	•	•••	••		•
ARCH 5107.03	Theory and the Built Environment	•	•		•	••	
ARCH 5108.03	Architectural Theory of the Enlightenment	•					
ARCH 5109.03	Ephemeral Architecture						
ARCH 5110.03	Architectural Exhibitions						
ARCH 5112.03	Documentation and Conservation of Modern Movement in Architecture	•					
ARCH 5113.03	Technology, Culture, and Society	n/a	n/a	n/a	•	•	•
ARCH 5114.03	Theory of Conservation Practice	n/a	n/a	n/a	n/a	n/a	•
ARCH 5198.03	Humanities Seminar	•••	•••		•••	••	•••

Core courses - Technology (17 courses)							
ARCH 5202.03	From Timber to Lumber	•	•				
ARCH 5203.03	From Lumber to Structure	•	•				
ARCH 5204.03	Composite Materials						
ARCH 5207.03	Light and Material						
ARCH 5208.03	Acoustics						
ARCH 5209.03	Energy Efficient Design						
ARCH 5210.03	Life Cycle Analysis				•		•
ARCH 5211.03	The Construction Detail		•	•	•	•	•
ARCH 5212.03	From Principle to Detail	•	••	•••••	•		•
ARCH 5213.03	Facades	•	•	••	•	•	••
ARCH 5214.03	Tensile Architecture	•	•				
ARCH 5215.03	Fabrication	•	•		••	•	
ARCH 5216.03	Building Systems Integration for Design Thesis	n/a	n/a	n/a	•	•	•
ARCH 5217.03	Innovations in Computers and Building	n/a	n/a	n/a	n/a		
ARCH 5218.03	Site and Material Processes	n/a	n/a	n/a	n/a	•	•
ARCH 5219.03	Technology of Heritage Conservation	n/a	n/a	n/a	n/a	n/a	•
ARCH 5298.03	Technology Seminar	••	••	•	•	•	•

Electives (26 courses)							
ARCH 6001.03	Design Seminar	•••					
ARCH 6002.03	Free Lab	•	•	•	••	•	•
ARCH 6121.03	Arch. and Archaeoastronomy	•	•	•	•	•	•
ARCH 6122.03	Humanities Seminar	••					
ARCH 6209.03	Material Investigation		••				
ARCH 6210.03	Material Investigation in Wood		•	•			
ARCH 6211.03	Technology Seminar	•••••	•	•		•	
ARCH 6215.03	Earth Construction	•	•	•	•	•	
ARCH 6216.03	Natural Finishes	••					

ARCH 6217.03	Product Development in Arch.	n/a	n/a	n/a	n/a	n/a	•
ARCH 6304.03	Entrepreneurship						
ARCH 6305.03	Permission to Build						
ARCH 6306.03	Professional Practice Seminar						
ARCH 6501.03	Graphic Design in Architecture						
ARCH 6502.03	Painting in Architecture						
ARCH 6503.03	Photography in Architecture	•	•	•	•	•	•
ARCH 6504.03	Montage in Architecture	•	•	•		•	•
ARCH 6505.03	Multimedia in Architecture	•		••	•	•	•
ARCH 6506.03	Spatial Const'ns in Digital Video		•				
ARCH 6507.03	Language as Representation		••				
ARCH 6508.03	Alternatives to Perspective						
ARCH 6509.03	Digital Form						
ARCH 6510.03	Architectural Documentation and Analysis		•			•	•
ARCH 6511.03	Documentation of Historic Buildings						
ARCH 6512.03	Developments in Architectural Representation						
ARCH 6513.03	Representation Seminar						

3.11.4 Curriculum for Advanced Placement Students

Required subjects in the BEDS program (including the two preliminary years of general studies) are used as a basis for assessing admission for a transfer student. See 4.2.2 for a detailed description of the School's advanced placement policy and procedure.

3.12 Student Performance Criteria

3.12.1 Curricular Goals and Content

The BEDS program is preceded by a minimum of two years of academic studies in any discipline, at any university. Our incoming students bring a wide variety of academic backgrounds and experiences to the School. This provides an important collective resource for group work during the program and for understanding architecture as a multifaceted discipline and profession. It also completes most of the general studies requirement for accreditation, rather than distributing electives throughout the four years of the professional program.

The two-year BEDS program provides students with a solid understanding of architecture. All courses are mandatory; there are no electives in the BEDS program. The same subjects - design, representation, humanities, technology, and professional practice - recur during all four academic terms. Courses are linked in different ways to show how architecture is integrated internally and is associated externally with other fields. This promotes a multifaceted understanding of the discipline.

The four-month BEDS co-op work term provides direct experience of architectural practice and is an important complement to the previous three academic terms. After returning from their work term, students report on their work experience to all other students and faculty. This raises everyone's awareness of cultural, social, and professional contexts for architectural practice across Canada and in other countries.

The final term of the BEDS program emphasizes comprehensive design, in which each student develops a building design through the design, technology, and representation courses. As the culmination of the BEDS program and the platform for proceeding into the MArch program, this term shows the extent to which students can carry out design research and resolution in a thoughtful and integrated way. Comprehensive design at this level is anticipated by the large-format process portfolio that each student assembles during each academic term to document research and development in all courses. Most of the accreditation criteria are met collectively during the BEDS program, so that individual students in the MArch program can focus on certain subjects in more depth. A BEDS graduate also may apply to an MArch program elsewhere or proceed into a related field such as design, environmental studies, management, or planning.

The six-term MArch program maintains the balance of design, humanities, and technology subjects in the BEDS program, while enabling students to focus on certain subjects related to faculty research and to develop their own interests and critical positions. It includes required courses, core courses (selected from a limited range of options), and electives that complete the requirements for the professional degree. A student's selection of core courses, electives, work term placement, and thesis topic encourages self-direction and can anticipate a career trajectory after graduation.

The first two terms of the MArch program strengthen abilities in research and criticism, anticipating the thesis year. The design courses in the second term typically emphasize urban topics.

The eight-month MArch co-op work term then enables students to become more involved in an architectural practice and to gain deeper experience by working on different phases of a project. After returning to the School, they report to the whole class on the work they accomplished, how the office and its responsibilities are organized, and what are its core values. This helps students develop their critical ability and recognize their own career ambitions.

The MArch program culminates in a two-term, self-initiated architectural design thesis that may draw from a student's pre-architectural studies, from selected architectural topics in the first three years of the professional program, or from a student's other backgrounds and interests. Most thesis topics align with the School's longstanding ethical emphasis on how architecture can respond to social, cultural, and environmental questions.

A student can align the various options in the MArch program - course selection in M1 and M2, co-op work placement in M3 and M4, and thesis topic in M5 and M6 - to gain momentum for a particular career trajectory. The School does not attempt to steer students toward a particular professional role; instead, we encourage students to recognize and explore diverse opportunities in local and global practices and to develop their own ambitions. In this way, the School hopes to contribute, in a modest way, to various facets of architecture, as both a discipline and a profession.

Dalhousie's BEDS/MArch program is characterized by the following features:

- Most of the CACB's general studies requirement is satisfied by the first two undergraduate years, before BEDS. This ensures that BEDS students come in with diverse academic backgrounds and bring some life experience. It also enables the BEDS/MArch program to concentrate almost entirely on architecture.
- The BEDS prerequisites include a full-year university course in an approved math or science subject, showing that mathematical ability is important for abstract thinking in architecture.
- From the beginning of the BEDS program, all courses focus on building designs and building-scale topics, so that tangible issues of dwelling, building, and situating are always present.
- History/theory and design courses rely heavily on case studies of existing buildings, so that students learn how to interpret and analyze architecture in different historical, geographical, and cultural situations. Critical case studies are intended as the obverse of design projects.
- Hands-on design-build projects occur frequently in the BEDS/MArch program, especially in the Technology courses and the two Free Lab courses. Knowing what it takes to make something with raw materials and basic tools, students appreciate economy of means and simplicity of design. These lessons are reinforced by an appreciation of vernacular architecture in the Atlantic region.
- The School has a long history of attention to ethics, social responsibility, and issues of habitation and dwelling. This is evident from B1 courses to M6 thesis projects.
- Since Essy Baniassad's deanship (1981–1994), the School has had a long history of attention to architectural education: how students learn and how subjects are taught. This influence is still somewhat evident among the faculty.
- In representation, BEDS students learn manual drawing and modelmaking before expanding into digital media. The objective is to develop a broad range of skills and an ability to use them fluently during the various stages of design process.
- During the past few years there has been growing attention to how the course content in the various streams can be integrated each term, so that students learn how design work can be motivated by other subjects (and vice versa).
- With Halifax as their home base, students are encouraged to develop international awareness and experience, especially during the work terms, when they live and work in another part of the world.
- Professional practice runs throughout the entire program, from B1 to M6. Courses alternate with work terms so that students develop practical experience and a critical position that helps them define their own direction in practice.
- The MArch program culminates in an individual design thesis that encourages each student to take responsibility for framing an architectural topic, developing motivation, and rolling this self-initiated project toward completion.

3.12.2 Student Performance Criteria in the Curriculum

The four sets of student performance criteria are met at particular times in the BEDS/MArch program, as indicated by the black squares in the matrix.

Critical Thinking and Communication

The first four criteria (A1–A4) are addressed by most courses, as they are basic skills for architecture students. Their peaks are in the final term of the BEDS program (after students have completed three academic terms and have just returned from their first work term) and in the final year of the MArch program.

The entire program includes a considerable amount of group work that requires collaborative skills (A5). The peaks occur in humanities courses that emphasize seminar discussions; design/technology courses that include collective design-build projects; and the MArch work term, in which students work on projects as part of a team.

The three humanities subjects (A6–A8) are addressed mainly in the BEDS humanities courses, as a foundation for the more diverse options of the MArch program.

Precedents (A9) are addressed in case studies throughout the BEDS/MArch program but are most intense in the B3 and B5 Humanities courses and in M5 Thesis Preparation, when students analyze the key books and buildings in their area of study.

Design and Technical Skills

The final term of the BEDS program addresses most of these criteria (B1–B12). By then, the students have a basic understanding of design process and building technology, and are expected to demonstrate well-rounded abilities that would qualify them for MArch admission.

There is one exception: Program preparation (B2) is not a significant part of the BEDS program. This waits until the M2 term and the thesis year, when students formulate projects in a more comprehensive way that includes program preparation.

Building codes (B6) have been a focus of the M6 Professional Practice course but are now being moved to B5 Professional Practice, where they will support the other B5 courses. Conversely, building economics and cost control (B12) are moving from B5 Professional Practice to M6 Professional Practice.

Comprehensive Design

Comprehensive design (C1–C4) is the explicit emphasis of the final term of the BEDS program, when a single design project is the focus of B5 Design, Building Systems Integration, and Representation. In the matrix, there are also gray squares for Year 5 courses in this section. Certain M1 and M2 courses have been designated as "comprehensive," as noted in the top row of course titles in the matrix. Each student must take at least one "comprehensive" course in either M1 or M2. This augments the comprehensive requirement in the B5 term. Although the thesis year includes a required Building Systems Integration course, comprehensive design is not a requirement at that level, as students work on diverse subjects at different scales that may not align with the CACB's comprehensive design expectations.

Technical documentation (C3) is addressed partly in academic courses but mainly in the BEDS and MArch work term courses, when students work in a situation that requires technical documentation.

Leadership and Practice

Professional practice is taught throughout the entire BEDS/MArch program, emphasizing critical positions and leadership abilities from the beginning. In January, the one-week, full-time Professional Practice module for B2, B5, and M6 students focuses on leadership and internship. All of the professional practice criteria (C1–C6) are also met by the major assignment for the MArch work term. By then, students have a good understanding of how practices work and are aware of various options for practice.

3.12.3 Student Performance Criteria Matrix

Please refer to the following fold-out matrix for our analysis of the BEDS/MArch program (Years 3–6) according to the CACB's 31 Student Performance Criteria.

Courses

All of the courses in the chart are from the 2013–14 academic year (Fall 2013, Winter 2014, and Summer 2014). There is one exception: ARCH 4304: Professional Practice (B5) is from Winter 2013. It includes a cost-control module that normally is offered in the B5 term but is being moved to the M6 term. All students eventually will take this course but it was not offered in 2013–14.

The matrix includes two types of courses: required courses that are taken by each student, mostly in the BEDS program; and core courses that are taken by some of the students in Year 5 of the MArch program.

Required courses in the matrix are indicated by the white columns.

"Core courses" are indicated by the gray columns for Year 5 MArch. They address certain curriculum requirements while expanding the range of architectural subjects for graduate students. From three or four options in each stream, each student selects one Design core course (ARCH 50xx), one Humanities core course (ARCH 51xx), and one Technology course (ARCH 52xx). Some M1 courses and some M2 courses are co-requisite.

Immediately to the right of the M1 core-course columns is a white column that indicates the common denominator for the M1 term: the student performance criteria that are met by each student, regardless of which core courses are selected. The same applies to the columns for the M2 term. Together, all of the white columns - the required courses and the M1 and M2 common denominators - indicate the criteria that are met by each student in the BEDS/MArch program.

MArch elective courses are not included in the chart but are included in the current course descriptions (4.3), as they contribute to the program.

Criteria

The CACB's 31 student performance criteria are:

A: Critical Thinking and Communication

A1. Critical 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 them against relevant criteria and standards.

A2. Research Skills

Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process.

A3. Graphic Skills

Ability to employ appropriate representational media to convey essential formal elements at each stage of the programming and design process.

A4. Verbal and Writing Skills

Ability to speak and write effectively on subject matter contained in the professional curriculum.

A5. Collaborative Skills

Ability to identify and assume divergent roles that maximize individual talents, and to cooperate with others when working as members of a design team and in other settings.

A6. Human Behaviour

Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

A7. Cultural Diversity

Understanding of the diverse needs, values, behavioral norms, and social/ spatial patterns that characterize different cultures and individuals, as well as the implications of this diversity on the societal roles and responsibilities of architects.

A8. History and Theory

Understanding of diverse global and local traditions in architecture, landscape, and urban design, as well as the factors that have shaped them.

A9. Precedents

Ability to make a comprehensive analysis and evaluation of a building, building complex, or urban space.

B: Design and Technical Skills**B1. Design Skills**

Ability to apply organizational, spatial, structural, and constructional principles to the conception and development of spaces, building elements, and tectonic components.

B2. Program Preparation

Ability to prepare a comprehensive program for an architectural project that accounts for client and user needs, appropriate precedents, space and equipment requirements, the relevant laws and standards, and site selection and design assessment criteria.

B3. Site Design

Ability to analyze and respond to context and site conditions in the development of a program and in the design of a project.

B4. Sustainable Design

Ability to apply the principles of sustainable design to produce projects that conserve natural and built resources, provide healthy environments for occupants/users, and reduce the impacts of building construction and operations on future generations.

B5. Accessibility

Ability to design both sites and buildings to accommodate individuals with varying physical and cognitive abilities.

B6. Life Safety Systems, Building Codes and Standards

Understanding the principles that inform the design and selection of life-safety systems in buildings and their subsystems; the codes, regulations, and standards applicable to a given site and building design project, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, occupancy requirements, means of egress, fire protection, and structure.

B7. Structural Systems

Understanding of the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range and appropriate applications of structural systems.

B8. Environmental Systems

Understanding of the basic principles that inform the design of environmental systems, including acoustics, illumination and climate modification systems, building envelopes, and energy use with awareness of the appropriate performance assessment tools.

B9. Building Envelopes

Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

B10. Building Service Systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

B11. Building Materials and Assemblies

Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance.

B12. Building Economics and Cost Control

Understanding of the fundamentals of development financing, building economics, construction cost control, and life-cycle cost accounting.

C: Comprehensive Design

C1. Detailed Design Development

Ability to assess and detail, as an integral part of the design, appropriate combinations of building materials, components, and assemblies.

C2. Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life safety systems, building envelopes, and building service systems into building design.

C3. Technical Documentation

Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction.

C4. Comprehensive Design

Ability to project a comprehensive design based on an architectural idea, a building program and a site. The design or designs should integrate structural and environmental systems, building envelopes, building assemblies, life-safety provisions, and environmental stewardship.

D: Leadership and Practice

D1. Leadership and Advocacy

Understanding of the techniques and skills for architects to work collaboratively with allied disciplines, clients, consultants, builders, and the public in the building design and construction process, and to advocate on environmental, social, and aesthetic issues in their communities.

D2. Ethics and Professional Judgment

Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

D3. Legal Responsibilities

Understanding of the architect's responsibility to the client and the public under the laws, codes, regulations and contracts common to the practice of architecture in a given jurisdiction.

D4. Project Delivery

Understanding of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service.

D5. Practice Organization

Understanding of the basic principles of practice organization, including financial management, business planning, marketing, negotiation, project management, risk mitigation and as well as an understanding of trends that affect practice.

D6. Professional Internship

Understanding of the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers.

Standards

In the matrix, each of the 31 criteria requires one of these two standards:

- Understanding: the assimilation and comprehension of information without necessarily being able to see its full implication
- Ability: skill in using specific information to accomplish a task, correctly selecting the appropriate information, and applying it to the solution of a specific problem

The black squares indicate courses in which a required standard is met by each student who passes the course. As specified in "CACB Conditions and Terms for Accreditation" (p. 12), these courses constitute the minimum requirements for a graduate to meet the demands of an internship leading to registration for practice. This would be the first place for the visiting team to

check when viewing the student work in the exhibition: typically, the most senior course(s) in which this subject is studied.

The black dots indicate courses that include this subject as a secondary component and/or prepare students for a more advanced "black square" course. They offer an additional guide to the visiting team.

The white squares indicate that a subject is not a significant part of a course.

The gray squares and gray dots for the Year 5 core courses should not be counted individually toward the required standards. The white columns to the right of the M1 and M2 core courses are the common denominators for all students in those two terms, and therefore should be counted.

4.0 Supplemental Information

4.1 Introduction to the University and Program History

4.1.1 History, Description, and Mission of Dalhousie University

History

Dalhousie University was founded in 1818 by George Ramsay, ninth Earl of Dalhousie, who resided at Dalhousie Castle near Edinburgh and also served as Lieutenant-Governor of Nova Scotia. He wanted the new college to be modeled on the university in Edinburgh, as an institution that would be open to all, regardless of class or creed. Soon after the college was founded, Lord Dalhousie was appointed Governor-General of Canada and left Halifax. Without his influence, the college faltered. The first instruction was offered in 1838 but the college operated only intermittently. It was later reorganized, and in 1863 reopened with six professors and one tutor. The first three degrees were awarded in 1866. The student body in that year consisted of 28 degree students and 28 occasional students.

The original site of the college was on the Grand Parade in downtown Halifax, where City Hall now stands. In 1886, the university moved to the Forrest Building, which is now part of the Carleton Campus, and gradually spread west to form the Studley Campus. In 1997, following the amalgamation of Dalhousie University and the Technical University of Nova Scotia (with its Faculties of Architecture and Engineering and its School of Computer Science), the Sexton Campus was added. Dalhousie University grew throughout the twentieth century, becoming Nova Scotia's largest university.

Following the 1997 Dalhousie/TUNS amalgamation, provincial legislation created a college, nicknamed "DalTech," to oversee academic, administrative, and research activities in Architecture, Engineering, and Computer Science. In 2000 the college structure was dissolved, with the Faculty of Architecture and the Faculty of Engineering becoming simply Faculties in the University, alongside Arts and Social Sciences, Computer Science, Dentistry, Health Professions, Law, Management, Medicine, Science, and Graduate Studies. In 2001 the Faculty of Architecture was renamed the Faculty of Architecture and Planning.

In 2012 the Nova Scotia Agricultural College merged with Dalhousie University to become the Faculty of Agriculture, bringing the number of Faculties to twelve.

Description

Dalhousie University occupies 79 acres on three campuses in central Halifax (Sexton, Studley, and Carleton Campuses). Following the 2012 merger with the Nova Scotia Agricultural College, the university now includes a much larger fourth campus near Truro, an hour's drive north of Halifax.

Dalhousie's student enrolment is 18,200: 45% male and 55% female. 42% come from other Canadian provinces and 12% come from over 110 countries other than Canada. The university's twelve faculties offer more than 180 undergraduate, graduate, and professional degree programs. Dalhousie has graduated 88 Rhodes Scholars, more than any other university in Atlantic Canada. There are 1,085 faculty members at the university. Dalhousie is home to 50 Canada Research Chairs, more than any university in the region, and over \$140 million is awarded annually in external research grants and awards.

Dalhousie has a system of libraries, student residences (2,850 units), an arts centre, an art gallery, a student union building, athletic and recreational facilities, etc. Major teaching hospitals, federal and provincial research laboratories, and the provincial archives are all close at hand. The University of King's College, situated adjacent to the Studley Campus, is an affiliated institution. Inter-university agreements with two other Halifax universities, Mount Saint

Vincent University and St. Mary's University, give Dalhousie students access to their courses and services.

Mission

In 2013 Dalhousie University appointed a new president, Richard Florizone. He spent his first hundred days listening to various constituents throughout the university. This led to a report, "100 Days of Listening," posted at <http://tinyurl.com/m38zov8>. This informed another document, "Strategic Direction 2014–2018," which was approved by the Board of Governors in June 2014 and is posted at <http://tinyurl.com/njcv7k2>. The following is an executive summary of the university's mission:

- to foster an environment of teaching and learning excellence, built on innovation, collaboration, and respect
- to create a hub of world-leading research and innovation, adding to the intellectual, social, and economic capital of our communities
- to facilitate opportunities for our students, staff, and faculty to connect with and serve our local, national, and global communities

Vision

Dalhousie is a leading innovative, research-intensive university, inspiring our diverse scholarly community to serve Nova Scotia, our region, our nation and the world.

Strategic Priorities

- Teaching and Learning:
Enhance the transformative power of teaching and learning.
- Research:
Expand the opportunities for research, scholarly and artistic work.
- Service:
Catalyze the intellectual, social and economic development of our communities.
- Partnerships and reputation:
Take our place nationally and internationally.
- Infrastructure and support:
Build our institutional capacities.

4.1.2 History of the School of Architecture and the BEDS/MArch Program

The Nova Scotia Technical College was founded in 1907, and in 1909 moved into a new building on the south side of Spring Garden Road at Brunswick Street, designed by Herbert Gates. Following World War II, the college became a wholly university-level institution offering undergraduate and graduate degrees. The campus expanded to include new buildings, primarily during the 1950s and 1960s.

The School of Architecture was established within the Nova Scotia Technical College in 1961, sharing the building on Spring Garden Road with the Nova Scotia Museum of Science. During the 1960s the professional architecture program started with two years of engineering at one of seven Maritime universities, followed by four years at the School of Architecture, leading to a Bachelor of Architecture degree. In 1969, the engineering prerequisite was changed to two years in any university subject.

In 1970 the provincial museum moved out, the School of Architecture took over the entire building, and the trimester system and co-op work term program were initiated. In 1973 the architecture portion of the professional program included a two-year pre-professional degree (eventually called Bachelor of Environmental Design Studies) and a two-year professional Bachelor of Architecture degree. The BArch program was validated by the Commonwealth

Association of Architects, and a one-year, post-professional Master of Architecture program was first offered. In 1976 the Faculty of Architecture was established, with the School of Architecture continuing as a constituent part of the Faculty. The main floor of the building was renovated, including the addition of a mezzanine for faculty offices. The Master of Urban and Rural Planning program was first offered in 1977, and in 1978 the Department of Urban and Rural Planning was established within the Faculty of Architecture.

In 1980 the Nova Scotia Technical College became the Technical University of Nova Scotia. During the early 1980s the studio level was renovated, mezzanines were added, and a resource centre was set up. In the mid-1980s the professional program was transformed, leading to a two-year Master of Architecture (First Professional) degree with a graduate thesis component. The School began to participate in overseas activities with the International Laboratory for Architecture and Urban Design (ILAUD), and adjunct professors and external examiners from various countries and fields were appointed. In the late 1980s the Faculty opened a publishing department, Tuns Press (renamed Dalhousie Architectural Press in 2013), which continues to produce architecture and planning publications. At the same time, an arrangement with Apple Canada introduced an initial fleet of computers for student use. In 1989 a one-year, non-professional Master of Environmental Design Studies degree was first offered.

In 1993, following an international design competition, the first phase of a new addition designed by Brian MacKay-Lyons was built in the rear courtyard of the existing building. The second phase of the building addition was completed in 2002. In 1994 the professional architecture program became the first in Canada to receive full accreditation from the Canadian Architectural Certification Board. Full accreditation was granted again in 1999, 2004, and 2009. In 1997, a decision by the Nova Scotia government to amalgamate universities led the three faculties of the Technical University of Nova Scotia (Architecture, Engineering, and a new Faculty of Computer Science) to become part of Dalhousie University.

The Directors of the School of Architecture have been: Douglas Shadbolt (1961–68), Vladimir Lyman (1968–70), and Peter Manning (1970–76). Since the Faculty of Architecture was established, the Deans have been Peter Manning (1976–81), Essy Baniassad (1981–94), Frank Palermo (1994–96), J. Grant Wanzel (1996–97), Thomas Emodi (1997–2003), J. Grant Wanzel (2003–08), and Christine Macy (2008–present). Since 2000, when the Dean/Director position was divided, the Directors of the School of Architecture have been Jacques Rousseau (2000–02), Steven Mannell (2002–05), Christine Macy (Acting Director 2005–06), Terrance Galvin (2007–09), Richard Kroeker (Acting Director 2010–11), and Diogo Burnay (2012–present).

Chronology of the School of Architecture

- 1961
 - School of Architecture is established within the Nova Scotia Technical College.
 - Douglas Shadbolt becomes the first Director.
 - School of Architecture shares the building with the Provincial Museum of Science.
 - Students complete two years of engineering at one of seven Maritime "associated universities" before being admitted to the School of Architecture.
 - Professional Architecture program consists of two years of pre-engineering and four years at the School of Architecture, leading to a Bachelor of Architecture (BArch) degree.
- 1968
 - Vladimir Lyman becomes Interim Director.
- 1969
 - The two-year Maritime engineering prerequisite is changed to a two-year prerequisite in any subject at any university.
- 1970
 - Peter Manning becomes Director of the School.
 - The provincial museum moves out. The School of Architecture takes over the building.
 - Trimester system and co-op work term program begin.

- 1973 • Professional program develops a 2+2+2 system: two years in any subject at any university, followed by a two-year non-professional architecture degree (first called Bachelor of Environmental Studies, then Bachelor of Environmental Design, and, since 1978, Bachelor of Environmental Design Studies), followed by a two-year professional Bachelor of Architecture degree.
 - The Architecture program is validated by the Commonwealth Association of Architects.
 - One-year, post-professional Master of Architecture program is offered.
- 1976 • School of Architecture becomes Faculty of Architecture.
 - Peter Manning becomes Dean.
- 1978 • Department of Urban and Rural Planning is established within the Faculty of Architecture.
- 1980 • Nova Scotia Technical College becomes Technical University of Nova Scotia (TUNS).
- 1981 • Essy Baniassad becomes Dean of the Faculty.
- 1983 • Professional program becomes: two years in any degree program at any university, followed by a two-year non-professional Bachelor of Environmental Design Studies (BEDS) degree, followed by a two-year Master of Architecture (MArch First Professional) degree with a graduate thesis component. The first MArch (First Prof.) students graduate in 1987.
 - The content of each program becomes clearly defined and creatively implemented.
 - The School slowly gains national and international stature.
- 1991 • One-year, non-professional Master of Environmental Design Studies (MEDS) degree is offered.
- 1992 • Essy Baniassad establishes a program with the Botswana Ministry of Education to enable students from Botswana to study at the School of Architecture. By the end of the program in 2009, thirty-two students will graduate with a Master of Architecture degree and return to Botswana to practice, teach, or do further academic studies.
- 1993 • First phase of an addition designed by Brian MacKay-Lyons is built in the courtyard of the existing building. This becomes the Exhibition Room.
- 1994 • The School's MArch program is the first in Canada to receive full accreditation from the Canadian Architectural Certification Board (CACB). It also continues to be validated by the Commonwealth Association of Architects.
 - Frank Palermo becomes Dean.
 - Growing emphasis on outreach projects in research and teaching.
- 1996 • Frank Palermo resigns for personal reasons; J. Grant Wanzel becomes Interim Dean.
 - The amalgamation of TUNS and Dalhousie University is negotiated.
- 1997 • Following amalgamation on April 1, Technical University of Nova Scotia becomes a college, nicknamed DalTech, within Dalhousie University.
 - Thomas Emodi becomes Interim Dean.
 - Academic policies and procedures are adjusted, and a strategic plan is developed for the Faculty of Architecture.
- 1999 • Thomas Emodi becomes Dean.
 - Canadian Architectural Certification Board again grants full five-year accreditation to the professional architecture program.
- 2000 • The Dean (Faculty) and Director (School) positions are formally divided and Montréal architect Jacques Rousseau becomes the first external School of Architecture Director.
 - Dalhousie University dissolves the DalTech college structure and the transitional name is dropped; the Faculty of Architecture becomes one of eleven Faculties in the University.

- 2001 • In November, Dalhousie University's Board of Governors approves the renaming of the Faculty of Architecture to become the Faculty of Architecture and Planning.
• The Faculty's Department of Urban and Rural Planning becomes the School of Planning.
- 2002 • The second phase of the building addition adds two new floors of studio space above the Exhibition Room. Mezzanines in the west and east studios are reconstructed in steel and concrete, replacing the previous wood construction.
• Jacques Rousseau resigns for personal reasons.
• Steven Mannell is appointed School of Architecture Director until 2005.
- 2003 • Thomas Emodi completes his term as Dean of the Faculty.
• J. Grant Wanzel is appointed Dean.
- 2004 • The School of Architecture again receives full five-year accreditation from CACB.
• A revised academic structure for the professional Architecture program (five-term BEDS + six-term MArch) is approved by the Faculty of Architecture and Planning and the Faculty of Graduate Studies for implementation in September 2004. The first students in the revised program begin in September 2004 and graduate in May 2008.
- 2005 • Steven Mannell is reappointed Director but steps down during a sabbatical.
• Christine Macy serves as Acting Director from July 2005 to December 2006.
- 2006 • Funded by CIDA and the Faculty of Architecture and Planning, and guided by Dean Wanzel, the Faculty partners with the Gambia Technical Training Institute in The Gambia, West Africa, to establish an undergraduate degree program, Bachelor of Community Building and Design. The first students begin the program.
- 2007 • Terrance Galvin is appointed School of Architecture Director for a three-year term, starting in January.
- 2008 • J. Grant Wanzel completes his term as Dean.
• Christine Macy is appointed Dean of the Faculty of Architecture and Planning in September for a five-year term. She is the first female Dean of the Faculty.
- 2009 • The School of Architecture again receives full five-year accreditation from CACB.
• Terrance Galvin resigns from the university for personal reasons in December.
• In The Gambia, the first students graduate from the BCBD program and receive a Dalhousie degree. Subsequent classes graduate from the University of The Gambia. A funded internship program also enables recent Canadian graduates to travel to The Gambia to assist with the BCBD program. In 2010 Dean Macy is appointed as an external examiner for the program.
- 2010 • Richard Kroeker serves as Acting Director of the School of Architecture for the next two years.
- 2011 • A capital campaign begins fundraising for a new IDEA (Innovation and Design in Engineering and Architecture) Building for the Sexton Campus.
• Various events in October celebrate the Faculty's fiftieth anniversary and anticipate the next fifty years.
- 2012 • Following an external search, Diogo Burnay becomes Director of the School.
• The university approves the School of Architecture's new faculty category, Professor of Practice.
- 2013 • The first three Professors of Practice are appointed.
• Christine Macy is reappointed to a second five-year term as Dean of the Faculty.
• The Faculty develops and approves a new strategic plan.
• The Faculty's publishing department, Tuns Press, is renamed Dalhousie Architectural Press.

4.2 Student Progress Evaluation

4.2.1 BEDS Admission

What to Study Before Architecture

High school students who are planning to study architecture at university are advised to develop a well-rounded academic foundation by taking courses in three areas: art/music, mathematics/science, and history/literature. Grade 12 math is a prerequisite for subsequent university courses in mathematics or science. Travel to other countries also broadens one's outlook.

For university students, many different subjects provide an effective stepping stone to architecture, so the School simply recommends that they work toward a degree in a discipline in which they are liable to do well. Two years of university are required for admission but most Dalhousie architecture students enter with an undergraduate degree. To prepare for studio work, all applicants are advised to take a course in freehand drawing and a course in a material-based subject (e.g., wood, metal, or ceramics).

BEDS Admission Requirements

The School seeks applicants with a good academic record and creative ability. The minimum requirements for admission are:

- a printed portfolio of design work that demonstrates creativity and/or artistic skill; it may include freehand drawings, paintings, furniture, sculpture, craft objects, creative photography, construction projects, etc.
- two years in a university degree program (ten full-year courses, twenty half-year courses, or a combination), with a minimum 2.5 grade point average (B- average), including the following courses:
 - a full-year course (or two half-year courses) in a mathematics or science subject that requires Grade 12 math as a prerequisite: e.g., algebra, calculus, statistics; chemistry, engineering, geology, physics
 - a full-year course (or two half-year courses) in a humanities or social science subject: e.g., art history, classics, literature, music history, philosophy; anthropology, political science, psychology, sociology (but not geography or planning)
 - a half-year course that emphasizes English writing skills (often designated by a university as "writing requirement" or "writing intensive")

The math/science prerequisite is checked by reviewing calendar descriptions or course outlines from other universities. This satisfies the math expectations of the School's Technology Group. Prospective students often contact the Architecture office to learn whether courses they have taken will satisfy the prerequisites.

College Students

One year of university equivalence may be granted to an applicant who has attended a post-secondary institution that is not considered a university. Two or more years at a college or an institute of technology plus one year at a university normally is acceptable.

Architectural Technology Students

Students who have studied architectural technology for two or more years at an institution that is not considered a university - even if it awards degrees - also must complete one full year of non-architectural courses at a university.

Architecture-only Students

Students who went straight from high school into a university architecture program, without studying other university subjects, must complete at least one full year of non-architecture

courses at a university to be eligible for BEDS admission. Some courses in a student's previous architecture program may count toward the two-year general studies requirement or may be accepted for transfer credit in the BEDS program.

Mature Students

Applications are considered from mature students who will be at least 25 years old at the time of registration in the BEDS program and do not meet all of the academic admission requirements (two years of university, 2.5 GPA, math or science course, humanities or social science course, course emphasizing written composition). Eligibility would depend on alternate qualifications, not just age. All mature students must have completed at least one full year (ten half-year courses) at a university; two years at a college is not sufficient.

Undergraduate Application

A complete application consists of six or seven items, due on March 1.

- Items sent to the Registrar's Office:
 - undergraduate application
 - application fee
- Items sent to the School of Architecture:
 - official academic transcript from each post-secondary institution attended
 - portfolio of design work (about 10-15 items)
 - statement of intent
 - two letters of reference
 - (evidence of English-language proficiency, if required: e.g., TOEFL 92, IELTS 7.0)

Review of Applications

To prepare each application for review, the undergraduate secretary assembles all of the items, checks for the minimum academic requirements, calculates an aggregate grade point average from all transcripts, and prepares a summary sheet for reference by the admission committee. Each year there are 250–300 applications for 65 places.

The first round of evaluations typically involves five groups, each with two faculty members who teach in the design stream and one student representative. For each application, the group examines the transcripts, reads the letters, and reviews the design portfolio. The highest applications are accepted, the lowest applications are rejected, and the middle applications move on to a second round for comparison.

The second round of evaluations is done by one committee, with two faculty members and one student representative. It compares all of the middle applications from the previous round. The higher applications are accepted, the lower applications are rejected, and the rest are ranked and placed on a wait list.

After the admission decisions have been made, the Architecture office continues to monitor accepted and waitlisted students. A student may be offered admission on condition that a missing course (usually in math/science) is completed during the summer term (typically via distance education) before entering the BEDS program. If any accepted students decline their admission offer, their place is offered to the next person on the wait list. The wait list is retired at the end of July, six weeks before the BEDS program begins.

4.2.2 Advanced Placement

A student who has studied architecture at another school may be considered for advanced placement to a level higher than the start of the BEDS program. Transfer applications are considered by a transfer admission committee that includes the Undergraduate Coordinator and two other faculty members. Subjects in the BEDS program are used as a basis for assessing the student's academic background. The committee uses a template to compare the student's

previous courses to required BEDS courses. Based on previous applications, the School has created a set of customized templates to assess the academic records of transfer applicants from most other Canadian architecture schools. Admission and level of entry are based on:

- academic standing (3.30 GPA typically is expected for admission to an advanced undergraduate level, anticipating the 3.00 GPA minimum for admission to a graduate program at Dalhousie University)
- courses completed elsewhere that are equivalent to BEDS courses at Dalhousie
- level of achievement in the student's architectural design portfolio
- total years of university completed (including general studies courses and prerequisites)
- English language proficiency for students whose first language is not English

The School does not offer a level of entry that would permit a student to obtain an MArch degree with less than six full years of university.

Most transfer students already have a pre-professional architecture degree and are considered for admission as a "Special Student Professional" at the B5 level. Starting in January, they take several qualifying courses before applying to the MArch program, which begins in May. They are not eligible to receive a BEDS degree.

The School does not permit students who already have a professional architecture degree (typically, from another country) to be admitted to the BEDS/MArch program to obtain another professional degree. Assuming that their eventual aim is to become a registered architect in Canada, we advise them to apply to CACB for their previous education to be certified. If additional courses are needed for certification, they can apply to complete those courses as a non-degree visiting student at Dalhousie.

4.2.3 Transfer Credits

A BEDS student who has already completed a course elsewhere that is equivalent to a required BEDS course may apply for a transfer credit. This transfers the credit - but not the grade - to the student's Dalhousie record and exempts the student from taking that BEDS course. For a previous course to qualify for transfer credit, the grade must be C or higher. A student must present evidence of the course content: the calendar description, course outline, and/or assignments. Transfer credits are assessed by the instructor, the Undergraduate Coordinator, and the Registrar's Office. If a student was admitted to the BEDS program with exactly two years of university, he/she must take an extra course before the end of the academic year to compensate for the transfer credit.

Transfer credits are not awarded in the MArch program, as the only required courses are in Year 6: mainly thesis-related courses that a transfer student would not have completed already. A previous course cannot be counted toward the MArch elective requirement.

4.2.4 MArch Admission

Graduate Application

There are three annual deadlines for MArch and transfer applications from Canada and the United States: February 1, June 1, and October 1. For other countries, the deadlines are two months earlier. Most transfer students with a pre-professional architecture degree have not completed all of the subjects equivalent to a Dalhousie BEDS degree and therefore must apply by October 1 and anticipate taking one or more senior undergraduate courses in the winter term, which starts in January. A complete application consists of six or seven items:

- Items sent to the Registrar's Office:
 - graduate application
 - application fee

- Items sent to the School of Architecture:
 - official academic transcript from each post-secondary institution attended
 - portfolio of architectural design work
 - statement of intent, describing areas of graduate focus and a potential thesis topic
 - two letters of reference
 - (evidence of English-language proficiency, if required: e.g., TOEFL 92, IELTS 7.0)

Review of Applications

As most transfer applicants enter the professional architecture program at a senior undergraduate level (as a Special Student Professional, SSP), most applications are compiled by the Undergraduate Secretary, who assembles all of the items, checks for the minimum academic requirements, calculates an aggregate grade point average from all transcripts, and prepares a summary sheet for reference by the admission committee. Pre-professional graduates from certain universities (e.g., University of Waterloo) are eligible for direct MArch admission, so their applications are compiled by the School's Graduate Secretary.

MArch admission requires at least four years of university, including architectural studies with a 3.00 grade point average and a B average in design courses. The previous architectural studies must include courses that are equivalent to Dalhousie's BEDS courses. For all incoming graduate students at the university, the Faculty of Graduate Studies requires a 3.0 GPA in the student's last two years (60 credit-hours) or the entire undergraduate record.

The application is reviewed by an admission committee with two faculty members and a student rep. It examines the transcripts, reads the letters, and reviews the design portfolio. The committee looks for integrated strengths in design, humanities, technology, and professional practice, indicating readiness to pursue graduate studies. The highest applications are accepted and the rest are rejected; there is no wait list. To ensure that an accepted transfer student has a good chance of MArch admission, the minimum undergraduate GPA is usually 3.30.

4.2.5 Evaluation of Student Progress

BEDS Courses

Grades for an individual BEDS course are assessed by the instructor at the end of each term and approved by the School of Architecture Committee before being posted on the university's website. Access to Dal Online enables each student to check his/her academic record at any time. The standards for undergraduate grades are described in the 2013–14 university calendar:

Grade	Grade Point	Percent	Definition	
A+	4.3	90–100	Excellent	Considerable evidence of original thinking; demonstrated outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.
A	4.0	85–89		
A–	3.7	80–84		
B+	3.3	77–79	Good	Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
B	3.0	73–76		
B–	2.7	70–72		
C+	2.3	67–69	Satisfactory	Evidence of some understanding of the subject matter; ability to develop solutions to simple problems; benefitting from his/her university experience.
C	2.0	63–66		
C–	1.7	60–62		
D	1.0	40–59	Marginal pass	Evidence of minimally acceptable familiarity with subject matter, critical and analytical skills.
F	0	0–39	Inadequate	Insufficient evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

Starting in 2014–15, the ranges for C, D, and F undergraduate grades throughout the university will be changed to:

C+	2.3	65–69	Satisfactory	
C	2.0	60–64		
C–	1.7	55–59		
D	1.0	50–54	Marginal	
F	0	0–49	Inadequate	

Reassessment of a BEDS Grade

A student may apply for an assignment grade or a final grade to be reassessed. A School of Architecture appeal committee, consisting of two impartial faculty members and a senior student representative, reviews the student's work, the course outline, and comparable work from other students in the course. The procedure is described in a School memo, "Appealing a Grade."

BEDS Process Portfolios

During each term, each BEDS student documents and gradually assembles process work and final work from all courses into a bound, 24" x 36" process portfolio. Guidelines are provided in a School memo, "Process Portfolio in B1–B3." The portfolio is physical for B1–B3 work and digital for B4–B5 work. The developing portfolio is intended to be discussed by instructors and other students throughout the term: not merely as a record of completed work but as a catalyst for work-in-progress.

BEDS Promotion

In April, at the end of Year 3 (B2 term) and Year 4 (B5 term), each student submits his/her completed process portfolios for that academic year. The portfolios and the student's grades are reviewed by a year-end review committee. Each set of reviews takes a full day. The committee consists of the Director, the Dean (*ex officio*), at least four faculty members, a senior student representative, and an external examiner from outside the school. During the past six years, the external examiners have been:

- 2009: Leslie Van Duzer (University of Minnesota)
- 2010: Pablo Molestina (FH Düsseldorf)
- 2011: Diogo Burnay (Technical University of Lisbon)
- 2012: Nat Chard (University of Manitoba)
- 2013: Nat Chard (University of Brighton)
- 2014: Nat Chard (University of Brighton)

The committee makes a promotion recommendation for each student but cannot change grades. It can recommend remedial work but that cannot lead to a grade change. The committee also considers the overall strengths, weaknesses, and directions of the BEDS program. Following the year-end reviews, the external examiner submits a written report to the School of Architecture.

A student must pass all Year 3 courses to be promoted to Year 4. C– is the minimum passing grade in a BEDS course. D is a marginal grade; depending on the student's overall record, the year-end review committee may accept it as a passing grade or may require that the course be repeated. F is a failing grade and the course must be repeated. A student who does not achieve at least a C– in a repeated course must withdraw from the BEDS program. A student with a GPA below 1.70 is dismissed for a 12-month period. A student with a GPA between 1.70 and 2.00 is placed on probation and must maintain a 2.00 sessional GPA to remain registered.

BEDS Graduation

To be awarded a Bachelor of Environmental Design Studies degree, a student must have passed all Year 3 and Year 4 courses. The maximum time allowed to complete the BEDS program is four years.

MArch Courses

Grades for an individual MArch course are assessed by the instructor at the end of each term and approved by the School of Architecture Committee before being posted on the university's website. Access to Dal Online enables each student to check his/her academic record at any time. B– is the minimum passing grade in an MArch course, as with all graduate courses at the university. Anything lower receives a failing grade of F. A student who fails more than one graduate course must withdraw from the program.

Grade	Percent
A+	90–100
A	85–89
A–	80–84
B+	77–79
B	73–76
B–	70–72
F	0–69

Reassessment of an MArch Grade

A student may apply for an assignment grade or a final grade to be reassessed. A School of Architecture appeal committee, consisting of two impartial faculty members and a senior student representative, reviews the student's work, the course outline, and comparable work from other students in the course. The procedure is described in a School memo, "Appealing a Grade." If an MArch student's School-level appeal is denied, he/she can submit an appeal to the Faculty of Graduate Studies.

MArch Promotion

To be eligible for promotion to Year 6 (thesis year) in the MArch program, all Year 5 requirements must be completed. The Architecture office conducts a Year 5 review by checking each student's academic record and work term employment record.

MArch Thesis Evaluation

Each MArch thesis project (which includes both design work and a formal thesis document) is evaluated by an examining committee that includes the student's supervisor and advisor, plus an external examiner from outside the School, who normally has a five-year appointment as an Adjunct (Faculty of Graduate Studies). A thesis cannot be approved without the agreement of the external examiner. There are four evaluation options for a thesis: "approved"; "approved pending design work and/or written report"; "rejected with permission for re-examination"; and "rejected outright." In addition to evaluating individual thesis work, an external examiner comments on the overall strengths, weaknesses, and directions of the MArch program, as evident in the thesis work. During the past six years, the external thesis examiners have been:

Year	Term	Thesis examiners
2008	Fall	Lily Chi
2009	Winter	Jacques Rousseau, Nada Subotincic
	Summer	Deborah Gans, Peter Lynch
	Fall	Jacques Rousseau, Leslie Van Duzer
2010	Winter	Carol Burns, Jacques Rousseau
	Summer	Deborah Gans, Peter Lynch
	Fall	Brian Carter
2011	Winter	Carol Burns, Terrance Galvin
	Summer	Deborah Gans, Peter Sassenroth
	Fall	Brian Carter
2012	Winter	Deborah Gans, Geoffrey Thün
	Summer	Andrea Kahn, Peter Sassenroth
	Fall	Peter Henry
2013	Winter	Geoffrey Thün
	Summer	Brian Carter
	Fall	Janna Levitt
2014	Winter	Andrea Kahn
	Summer	Brian Carter, Andrea Kahn

MArch Graduation

To be awarded a Master of Architecture degree, a student must have passed all required courses, six core courses (two each in Design, Humanities, and Technology), and four elective courses. The maximum time allowed to complete the MArch program is five years.

4.3 Current Course Descriptions

The following pages summarize the BEDS and MArch courses during the 2013–14 academic year (fall, winter, and summer terms). Abbreviated course descriptions are included for all required courses, core courses, and elective courses. The full course outlines will be part of the exhibition for the Visiting Team.

4.3.1 Course Numbers

In a course number such as ARCH 3001.06, the first digit indicates the program/year and course type:

First digit	Program and Year	Course type
3	Year 3 BEDS	required course
4	Year 4 BEDS	required course
5	MArch	required course or core course
6	MArch	elective course
8	BEDS	work term
9	MArch	thesis

The second digit indicates the stream:

Second digit	Stream
0	Design
1	Humanities
2	Technology
3	Professional Practice
5	Representation

The third and fourth digits indicate the particular course.

The last two digits indicate the weight of the course, expressed as credit-hours (01–06). This is the approximate number of class hours per week.

4.3.2 Courses in 2013–14

ARCH	Course title	Term	Type	Stream
3001	Design	B1	required	Design
3002	Design	B2	required	Design
3104	Foundations in Arch'l History and Theory	B1	required	Humanities
3105	History & Theory of Arch. - 20th Century	B2	required	Humanities
3207	Building Technology	B1	required	Technology
3208	Building Technology	B2	required	Technology
3301	Professional Practice	B1	required	Practice
3302	Professional Practice	B2	required	Practice
3501	Representation	B1	required	Rep.
3502	Representation	B2	required	Rep.
4003	Design	B3	required	Design
4004	Free Lab	B3	required	Design
4005	Design	B5	required	Design
4110	History & Theory of Arch. - 14th-18th Cent	B3	required	Humanities
4111	History & Theory of Arch. - 19th Century	B5	required	Humanities
4211	Building Systems Integration	B3	required	Technology

4212	Building Systems Integration	B5	required		Technology
4303	Professional Practice	B3	required		Practice
4304	Professional Practice (Winter 2013)	B5	required		Practice
4501	Representation	B3	required		Rep.
4502	Representation	B5	required		Rep.
5002-1	Urban Housing Studio	M2	core	Design	
5002-2	Urban Housing Studio	M2	core	Design	
5004-1	Urban Systems Studio	M2	core	Design	
5007	Landscape Studio	M1	core	Design	
5010-1	Public Architecture Studio	M1	core	Design	
5010-2	Public Architecture Studio	M1	core	Design	
5011	Coastal Studio	M1	core	Design	
5102	Housing Theory	M2, M5	core		Humanities
5103	Residential Real Estate Development	M6	elective		Humanities
5106	International Sustainable Development	M1	core		Humanities
5113	Technology, Culture, and Society	M1	core		Humanities
5114	Theory of Conservation Practice	M1, M2	core		Humanities
5199-1	Humanities Seminar: Theory	M2	core		Humanities
5199-2	Humanities Sem.: Conservation (= 5114)	M2	core		Humanities
5210	Life Cycle Analysis	M2	core		Technology
5211	Construction Detail	M2	core		Technology
5212	From Principle to Detail	M1	core		Technology
5213	Facades	M1, M2	core		Technology
5216	Building Systems Integ. for Design Thesis	M5	required		Technology
5218	Site & Material Processes	M1	core		Technology
5219	Technology of Heritage Conservation	M2	core		Technology
5298	Technology Seminar	M1	core		Technology
5308-9	Co-op Work Term	M3-M4	required		Practice
6121	Architecture and Archaeoastronomy	M2, M5	elective		Humanities
6217	Product Development in Architecture	M2, M5	elective		Technology
6503	Photography in Architecture	M2, M5	elective		Rep.
6510	Documentation and Analysis	M2	elective		Rep.
8892	Co-op Work Term	B4	required		Practice
9007	MArch Thesis Preparation	M5	required	Design	
9008	MArch Thesis	M6	required	Design	

ARCH 3001.06: Design

Year 3 BEDS - B1 term (fall)
required course - design
65 students - 5 groups of 13

Calendar Description

This course studies basic principles of architecture through studio projects using drawings and models. Students design elementary building forms beginning with the room and the pavilion, on various sites. Working with basic building elements of floor, wall and roof, students consider architectural composition and materials at the three scales of detail, building, and site. The class includes historical design studies to understand how other architects have responded to similar problems.

Additional Course Description

This studio course introduces principles of architectural form and design. It focuses on elementary forms - the room and the pavilion - in the context of the city. As the first studio in the architecture program, it serves as a foundation for future studios, focusing on fundamental architectural principles and essential design skills. Principles include the social and symbolic dimensions of space, form, and materials, and the impact of place and context on building design. These ideas are introduced in a thematic dialectic of the city and the shelter: of situation and enclosure. This design studio is integrated with the concurrent history, representation and building technology courses.

Course Requirements

- Rooms in the City: study and design of a room in an urban streetscape (group of 6)
- Case Study Pavilion: study of an exemplary pavilion (group of 4)
- Pavilion Counterpoint: design of a pavilion that complements the case study (individual)

Learning Objectives

- understanding of fundamental aspects of architecture: form, context, inhabitation, and materiality
- development of skill in problem definition, building organization and geometry, structural and material development, the use of scale, design methods, and visualization in drawing and modeling

Instructors

Christine Macy (coordinator)
Susan Fitzgerald
Brian Lilley
Maria Elisa Navarro Morales
Niall Savage
Cristina Verissimo

ARCH 3002.06: Design

Year 3 BEDS - B2 term (winter)
required course - design
65 students - 5 groups of 13

Calendar Description

This course studies principles of architecture by focusing on the design of the house. Building on topics from ARCH 3001, it considers issues of composition (structural, volumetric, and spatial), building program, interior environment, and relations to community context and ecological surroundings. The class includes historical design studies to understand how other architects have responded to these issues.

Additional Course Description

The house is the smallest building type that contains the complexity of all architecture. It contains private space, social space, and service space. The house in B2 bridges between the room (B1) and the hall (B3). Each student designs a house on a group waterfront site in Lunenburg, NS.

Course Requirements

- case study (group of 12)
- situating: site strategy (group of 12 and individual)
- dwelling: house form (individual)
- building: building strategy (individual)
- ensemble (individual)

Learning Objectives

Awareness of all the issues that constitute a design project, in conjunction with other B2 courses:

- environmental and cultural analysis of a site (design, representation, technology, history)
- urban design approaches and neighbourliness (design, representation, history)
- parti development at all scales (design, representation, technology)
- structure and systems integration (design, technology)
- case study application in design (design, representation, technology, history)
- thematic detail development and expression (design, representation, technology)
- written descriptions of design position and building strategy (design, technology, history)
- consultation and criticism (design, technology, professional practice)

Instructors

Brian MacKay-Lyons (co-coordinator)
Niall Savage (co-coordinator)
Jennifer Esposito
Emanuel Jannasch
Cristina Verissimo

ARCH 3104.03: Foundations in Architectural History and Theory

Year 3 BEDS - B1 term (fall)
required course - humanities
65 students

Calendar Description

This course introduces basic topics in architecture and interpretive methods in architectural research. It focuses on selected buildings and the role of the architect in the ancient and medieval eras. To develop research skills and architectural awareness, students interpret local buildings through direct experience and study distant and historical buildings through publications.

Additional Course Description

The course has a dual emphasis on practical architectural research and theoretical architectural history. Rather than being a comprehensive re-presentation of architectural history, it focuses in a more active way on sources and activities from which history is generated. It includes thematic lectures on building, dwelling, and situating, plus lectures on individual buildings or urban settings in primitive, ancient, and medieval eras. The two architectural projects in the course proceed from local to distant, and from current to historical. This reverse chronology uses the experience of local buildings as a familiar benchmark for investigating buildings in more distant places and times.

Course Requirements

- observation and analysis of a local building (group of 13)
- interpretation of a local building (group of 4)
- annotated bibliography and interpretive drawings on a distant and/or historical building (individual)
- two quizzes

Learning Objectives

- to become aware of basic concepts of dwelling, building, and situating
- to understand selected ancient and medieval buildings according to these concepts
- to develop abilities in architectural research and citation
- to develop abilities in observing, representing, and interpreting a building on-site and through publications

Instructor

Stephen Parcell

ARCH 3105.03: Architectural History and Theory - 20th Century

Year 3 BEDS - B2 term (winter)
required course - humanities
65 students

Calendar Description

This course is a survey of late modern architecture, focusing on Europe and North America. Buildings and urban projects are situated in their social and political contexts and the theoretical constructs that influenced their development. Students are exposed to extramural archives and resources to research local modern buildings and their architects.

Additional Course Description

The course includes weekly lectures, supported by textbook readings. It also includes weekly seminars, led by students, on seven topics: modernity and avant-gardes; architecture as social engineering; modern technologies and materials; tradition and continuity; *genius loci*; typologies and vernaculars; and ecology and sustainability.

Course Requirements

- seminar participation (group of 6)
- seminar report (individual)
- illustrated essay: analysis and interpretation of a work of architecture, in terms of its creation, production, or reception (group of 4 and individual)
- statement of design intentions for the B2 Design project (individual)

Learning Objectives

- familiarity with key works of modern architecture
- ability to situate them in their societal, economic, and technological circumstances
- understanding of the intellectual construct of “modernism” in architectural discourse
- awareness of critical responses to modernism, particularly in terms of gender and cultural hegemony

Instructor

Christine Macy

ARCH 3207.03: Building Technology

Year 3 BEDS - B1 term (fall)
required course - technology
65 students

Calendar Description

This course studies aspects of building technology that act as primary generators of architectural form: structure, material, light and sound. Construction process is examined in terms of materials, methods and sequences. Principles of building structure and methods of structural analysis are introduced. The physics and perception of light in built environments are studied. Quizzes and tests are complemented by studio exercises.

Additional Course Description

Technology is not understood as a set of rules to follow, but as a world of ideas and phenomena that architects have used in different ways in different times and places. Structures and construction comprise two-thirds of the course, while lighting comprises one-third. Structures covers the arrangement, design, and connection of primary building elements into mechanical systems that resist gravity, wind, and seismic loads. Construction considers how to investigate, understand, and select building materials, and how to shape and assemble building elements. Lighting examines different qualities of natural light and ways of creating them in a student's building design.

Course Requirements

- application of technology principles to the integrated B1 studio assignments (individual)
- exercises and quizzes (individual)
- notebook of sketches and photographs (individual)

Learning Objectives

- ability to identify the technical questions that arise in works of architecture
- ability to find helpful ideas, examples, and theories
- ability to extract general principles from specific cases
- ability to apply those principles to a design project

Instructor

Emanuel Jannasch

ARCH 3208.03: Building Technology

Year 3 BEDS - B2 term (winter)
required course - technology
65 students

Calendar Description

This course studies aspects of building technology that mediate the relationship between interior and exterior environments. Building materials studies include structural and environmental properties, constructional implications, and principles of assembly and jointing. The principles of heat flow, air flow and moisture flow in building enclosures are presented. Students undertake a series of design exercises applying knowledge of topics studied in the class.

Additional Course Description

The course introduces concepts and applications of building systems, both as physical entities and as analytical tools. It supports B2 Design but the assignments are separate. Students use building materials and make rudimentary use of Excel and VectorWorks.

Course Requirements

- Language of Construction: model and drawings of a building assembly (individual)
- The Fourth Element: construction study, in the form of a lamp, based on Semper's four elements: platform, frame, envelope, and hearth (individual)
- eight quizzes and exercises (individual)

Learning Objectives

Language of Construction:

- ability to identify and order the layers in various envelope and floor assemblies
- ability to design a building assembly in three dimensions, including some possible edge conditions
- ability to explain the sequence of trades involved in a given assembly
- ability to arrange a set of assemblies to define a complete building
- appreciation of the variety of conventional construction methods
- appreciation of the need to design details strategically rather than from a textbook

The Fourth Element:

- understanding of the basics of: concrete mix design, placement, and finishing; and formwork, both internal and external, including ties and inserts
- basic understanding of wood
- basic understanding of wiring as an analogue to other mechanical systems
- ability to devise a sound structural connection
- understanding of approval process modeled on industry practice
- ability to apply technical knowledge in support of a design intention

Instructors

Emanuel Jannasch
Roger Mullin

ARCH 3301.01: Professional Practice

Year 3 BEDS - B1 term (fall)
required course - professional practice
65 students

Calendar Description

This course introduces the role and place of the architect in society, with an emphasis on the development of the profession through history. It also studies representation methods employed by architects and their implications for design.

Additional Course Description

Professional practice encompasses all aspects of the work of the architect. It is a holistic endeavor that brings together design, construction, and representation with ethics, law and project delivery. The practice of architecture utilizes the collective knowledge and skill of many people in addition to the architect: engineers, builders, clients and government officials/documents. Understanding and integrating this expertise is essential for the creation of built work.

Course Requirements

- Manifesto: a poster with graphics and text that proclaims the student's critical architectural position and aspirations for practicing architecture (individual)

Learning Objectives

- awareness that the profession has developed through history
- awareness of how drawings are used for designing and constructing architecture
- understanding of the relationship between the architect and other professions in designing and building architecture
- awareness that there are different models of practice, with different methods for creating work, and that the model of practice influences the architecture
- initial formulation of a critical position in relation to the practice of architecture

Instructor

Susan Fitzgerald

ARCH 3302.01: Professional Practice

Year 3 BEDS - B2 term (winter)
required course - professional practice
65 students

Calendar Description

In this week-long module students learn about the architect in society; the political, social, economic and ethical environments in which architects practice; and an introduction to office organization and project management.

Additional Course Description

This full-time, one-week module includes two parts: a contract document / site visit component; and presentations on leadership and advocacy by visiting practitioners (attended by all B2, B5, and M6 students). Groups of students participate in supervised visits to two offices and two construction sites to observe relations between the contract documents and the building process. Students develop skill in observation - by relating contract drawings to built reality - and skill in recording their site observations.

Course Requirements

- report on office visits and site visits (group of 6)
- report on three details in two buildings (individual)
- critical review of visiting practitioners' responses to a question (group of 2 or 3)

Learning Objectives

- awareness of how practices lead and advocate
- initial understanding of technical documentation and project delivery

Instructors

Ted Cavanagh (coordinator)

Susan Fitzgerald

Cristina Verissimo

ARCH 3501.03: Representation

Year 3 BEDS - B1 term (fall)
required course - representation
65 students

Calendar Description

This course studies fundamental concepts, techniques, and applications of architectural representation. class work involves freehand drawing, orthographic drawing, model making, and digital media. Drafting and modeling equipment are required.

Additional Course Description

The task of representation is to communicate an understanding of objects, places, and phenomena through drawings, images, and constructions. This course studies essential techniques and skills involved in the study, conception, and presentation of architectural form. This involves developing skills of the eye and hand, in drawing, modeling, and photography. The three assignments are integrated with the other B1 courses.

Course Requirements

- Room in the City: onsite freehand drawings, orthographic drawings, tonal drawings, and tonal section (individual)
- Pavilion Case Study: analysis of a case study pavilion in models and diagrams (individual)
- Pavilion Counterpoint: model photography, digital formatting and output, graphic presentation (individual)

Learning Objectives

- understanding of conventions of architectural representation
- understanding of representation as a tool of investigation and research in observation, documentation, abstraction, and presentation

Instructors

Leon Katsepontes
Ken Kam

ARCH 3502.03: Representation

Year 3 BEDS - B2 term (winter)
required course - representation
65 students

Calendar Description

This course builds on the principles of drawing, modeling, imaging, and composition studied in ARCH 3501. Topics include axonometric, perspective, tone, colour, and composition.

Additional Course Description

The course develops analytical and descriptive skills in architectural representation, including tone, perspective, colour, and narrative. Historic examples and disciplinary terminology are introduced to enable graphic work to be evaluated and discussed. The four parts of the course complement projects in the other B2 courses.

Course Requirements

- Line drawing: orthographic drawings of city, street, and site for B2 Design project
- Projections: axonometric, analytical drawing, and perspective of case study house
- Colour: optical mixtures and physical dimensions in graphic studies
- Narrative: presentation of B2 Design house project

Learning Objectives

- understanding of tone and colour principles
- development of technical skill in orthographic, axonometric, and perspective projections
- ability to utilize graphic options to represent design intentions

Instructor

Roger Mullin

ARCH 4003.03: Design

Year 4 BEDS - B3 term (summer)
required course - design
65 students - 5 groups of 13

Calendar Description

This course studies principles of architecture through the design of a public building. Building on previous courses, it includes the organization of a public program and issues of context and interpretation. As an intensive studio it encourages students to focus on design intentions and to develop an awareness of design process.

Additional Course Description

Each studio group (12 students) works on a different site and develops a program for a community centre that is related to that site. Each student designs a building and adjoining spaces that respond to program requirements, urban context, and natural context. The design process begins with an analysis of the context and the definition of a building program, then deals with urban site relationships, spatial sequences, scale, and proportion. In coordination with the Building Systems Integration course, the design engages issues of natural lighting, acoustics, materials, and structures in creating a public space.

Course Requirements

All items are individual:

- 1:500 representation of site relationships: e.g., solar paths, climate, related adjacencies, ground cover, services, routes and paths
- statement of program/space needs for the building and site
- 1:200 drawings and model(s) of the building and outdoor urban spaces
- 1:100 main floor plan of the building
- perspectives of a critical space and of the building in its site context
- 1:20 structural spanning element and wall section model
- acoustical analysis as it relates to the design (integrated with BSI course)
- process portfolio that describes the design development

Learning Objectives

- ability to design a small public building and adjoining spaces for a particular site
- understanding of how a program can be developed from a particular situation
- understanding of how representations are used in the design process to model and test ideas

Instructors and Projects

Richard Kroeker (coordinator): community centre for Sambro, NS

Omar Gandhi and Peter Braithwaite: community centre for Westmount elementary school

Peter Henry: multipurpose hall near Hydrostone Market

Rayleen Hill: skating centre on the Halifax Common

Brian Lilley: aquatic sports centre on Lake Banook, Dartmouth

ARCH 4004.03: Free Lab

Year 4 BEDS - B3 term (summer)
required course - design
100 students - 10 groups of 10 (with M1)

Calendar Description

To complement studio-based learning, This course is an experimental hands-on workshop in design led by an instructor. Investigations of a particular architectural topic may include design-and-build, documentary work, landscape installations, community design projects, and interdisciplinary work. Projects may be done locally or involve travel to a distant site.

Additional Course Description

Free Lab is a full-time, two-week module in late July. It is a required course (ARCH 4004) for B3 students and an elective (ARCH 6002) for M1 students. Students choose one of twelve sections, each with its own project outline and led by an instructor. The project is done collaboratively.

Course Requirements

- free lab project, as described in the project outline (group of 10)
- digital presentation (group of 10)
- free lab report (group of 10) and critical summary (individual)
- participation in all sessions

Learning Objectives

- development of knowledge and skills in full-scale, research-based, design-build work

Instructors and Projects

Roger Mullin (coordinator)

Ted Cavanagh: farmers' market in Chéticamp, Cape Breton Island, NS

Ted Cavanagh: tree house accommodation in Fundy National Park, Alma, NB

Josh Collins: construction on Gottingen Street, Halifax

Peter Henry: stage-set pieces for a play, "The Drowning Girls"

Emanuel Jannasch: constructing an anti-dome

Christopher Kaltenbach: forms derived from insect habitats

Ken Kam: photo-ethnographic documentation of free labs in NS, PE, and/or NB

Brian Lilley: social media mapping of the Halifax Explosion

Brad Pickard and Devin McCarthy: site-specific, portable installation on the Citadel, etc.

Talbot Sweetapple: finishes, furnishings, and fixtures for a pavilion on the Bay of Fundy

Kim Thompson: cottage constructed with natural building techniques in Ship Harbour, NS

Cristina Verissimo: building element or shelter made of cork, in Lisbon, Portugal

ARCH 4005.06: Design

Year 4 BEDS - B5 term (winter)
required course - design
65 students - 5 groups of 13

Calendar Description

This course studies advanced principles of architectural design through the design of a medium-sized institutional building. Elaborating on topics from the previous design courses, students organize a complex program on an urban site and develop a project that uses building technology strategically and engages relevant issues in architectural history and theory. Emphasis is also placed on fluency in architectural representation.

Additional Course Description

The B5 Design course is related to the B5 BSI, Representation, and History courses. All four courses share a common design project: a new music school for Dalhousie University, located on the northwest corner of Robie Street and University Avenue. The project emphasizes comprehensive design by addressing a range of issues that parallels the practice of architectural design in an office: theoretical and practical concerns, technological and programmatic demands, and formal and contextual expectations. It operates at various architectural scales: urban, building, room, and detail.

Course Requirements

- Midterm project and process portfolio (individual)
- Process portfolio (individual)
- Final project (individual)
 - show how the program can engage its urban and natural contexts
 - devise a formal organization and structural system that respond to the context, site, and program
 - show how the structural system, environmental systems, building envelope, building assembly, life-safety provisions, and environmental stewardship are integrated to reinforce the larger ideas of the project
 - show how the material composition relates the parts to the whole and conveys an understanding of construction sequence
 - give architectural qualities to spaces for particular activities
 - express the ambition of the building in the design of a detail

Learning Objectives

- ability to do site analysis and make a proposition for a building on a site
- ability to interpret a building program architecturally
- ability to develop a medium-sized institutional building technically

Instructors

Talbot Sweetapple (coordinator)
Diogo Burnay
Susan Fitzgerald
Richard Kroeker
Catherine Venart

ARCH 4110.03: History and Theory of Architecture - 14th–18th Century

Year 4 BEDS - B3 term (summer)
required course - humanities
65 students

Calendar Description

This course studies significant buildings and the role of architecture from the Renaissance to the Enlightenment, mainly in Europe. It follows the transition from master builder to architect, and the humanist search for order and its manifestation in built form. Students analyze the design of significant buildings by studying historical documents and making interpretive drawings and models.

Additional Course Description

Through examination of literary sources (primary source documents, book chapters, and articles by contemporary scholars), as well as visual analysis of buildings, floor plans, etc., the course traces the progression of architecture from the 14th through 18th centuries. It also looks at the changing role of architects, from master masons to a more intellectually elevated and professional status. These changing styles in architecture are linked to sociopolitical events and philosophical tenets. In addition to studying structures produced in the West, the course looks at historical structures in China and Japan.

Course Requirements

- weekly seminar participation (individual)
- seminar assignment and group leadership (individual)
- study of a historic building (group of 4)
 - annotated bibliography
 - paper
 - presentation
 - interpretive drawings

Learning Objectives

- ability to discuss architecture and relevant artistic works from the 14th to the 18th century
- ability to use architectural and art historical terminology and understand its application with regard to the monuments presented in lectures
- ability to discuss structures that include significant works of art, both interior and exterior
- ability to discuss the impact of historical events (religious, social, and political) on works produced by architects and artists in this period

Instructor

Elizabeth Loeffler

ARCH 4111.03: Architectural History and Theory - 19th Century

Year 4 BEDS - B5 term (winter)
required course - humanities
65 students

Calendar Description

This course studies impacts of industrialization on architecture and the city in nineteenth-century Europe and North America. It considers major urban transformations in their socio-political context. Students examine primary and secondary sources to develop skills in research and criticism.

Additional Course Description

The course studies major building types that developed during the nineteenth century in Europe and North America. These include: communal housing; public institutions such as schools, prisons, hospitals, museums, and department stores; urban infrastructures such as railroads and train stations; and office buildings such as skyscrapers. The lectures contextualize each building type in terms of the debates that took place at the time. These include, among others, Marxism, St. Simonism, feminism, natural preservation, environmental determinism, progress, and capitalism.

Course Requirements

- participation in seminars (group of 5–6)
- seminar report (individual)
- essay on a human activity in the 19th century (e.g., food preparation, education, sickness, giving birth, sport, or entertainment) and how it was supported and structured by architecture
 - research dossier (group of 5–6)
 - essay outline (group of 5–6)
 - one section of the essay (individual)

Learning Objectives

- development of analytical skills from reading essays and discussing their content in a seminar format
- development of interpretive skills from writing an essay

Instructor

Sarah Bonnemaïson

ARCH 4211.03: Building Systems Integration

Year 4 BEDS - B3 term (summer)
required course - technology
65 students

Calendar Description

This course studies the integration of building structural and enclosure systems in architectural design. Long span structural systems and lateral forces are examined, including their interaction with the enclosure system. Building enclosure studies include the performance of materials in assemblies, the performance of the building envelope, and the sequence of construction. The integration of structure and enclosure is examined through the construction detail. Students complete case studies and design projects integrating structure and enclosure in buildings.

Additional Course Description

The course concentrates on structure and acoustics, and is divided into three parts:

- understanding structural systems and defining broad performance values
- developing and testing a structural system through hands-on experience
- architectural integration and system/design development in each student's B3 Design project for a community centre

Course Requirements

- structural bay model (group)
- lightweight structure installation (group)
- process log book 1 (individual)
- process log book 2 (individual)
- process log book 3 (individual)

Learning Objectives

- understanding of key ambient and static phenomena in relation to the built environment and the ability to determine performance values
- ability to use geometry as a vehicle for synthesis of building systems and design
- ability to model component systems with an understanding of systems integration relative to scale
- ability to assess the fit of structure, environment, and design criteria
- ability to develop related strategies for structure and skin according to that fit

Instructors

Brian Lilley (coordinator)
Douglas Pitcairn
Kevin Reid

ARCH 4212.03: Building Systems Integration

Year 4 BEDS - B5 term (winter)
required course - technology
65 students

Calendar Description

This course studies performance standards related to human activities in buildings, and the systems and configurations required to support those activities. Building systems are considered in relation to climate, urban situation, and the natural environment. Principles of systems thinking, as well as the use of physical and computational modeling methods, are applied to the comprehensive design of a building to achieve defined performance standards and to consider issues of sustainability with regard to energy balance, water conservation, and component materials.

Additional Course Description

This course studies architecture through an exploration of constructional, structural, and environmental building systems and their relationships to human activity and the natural context. Buildings are organized around the purpose of creating tempered environments for human activity. This course is specifically for designers and works with the B5 Design studio project (a music school for Dalhousie University), incorporating the information and principles of the course into the comprehensive design of a building. Students are taught quantitative energy modeling methods for use at the design stage, to equip them to design energy-balanced buildings. They are taught where to find performance standards related to building function, and to assess their own designs for compliance with statutory standards and best-practice standards of building performance. The course is integrated with two others: B5 Design and B5 Representation.

Course Requirements

- energy balance numerical model of the building (individual)
- schematic structural model of the building (individual)
- critical section and plans of the building (individual)
- materials schedule (individual)
- detailed sectional drawing (individual)

Learning Objectives

- ability to develop a comprehensive building design that integrates performance issues and defined standards for: siting, occupation and circulation, structure, ventilation and heating/cooling, emergency response, water needs, lighting, information flow, environmental controls, parking/transportation, goods delivery and refuse, construction/disassembly, and procurement (material supply and construction process)

Instructor

Richard Kroeker

ARCH 4303.01: Professional Practice

Year 4 BEDS - B3 term (summer)
required course - professional practice
65 students

Calendar Description

This course introduces contemporary office practices and project delivery including marketing, contracts, project phases and contract administration. The class also introduces issues related to the co-op work term, including job placement and the role of the student in a professional office.

Course Requirements

- the practice (group of 5)
- Architorture game (individual)
- work planning (group of 5)
- quiz (individual)
- the proposal (group of 5)

Learning Objectives

- understanding of basic principles of the architectural profession, including business and professional aspects
- preparation for work term experience

Instructor

Benjie Nycum

ARCH 4304.01: Professional Practice

Year 4 BEDS - B5 term (winter)
required course - professional practice
65 students

Note: This cost control module in this course is from Winter 2013. Normally it is offered every year in ARCH 4304 but not in Winter 2014 because the topics for ARCH 4304 and ARCH 5311 are being switched. (Codes are moving to ARCH 4304, while cost control is moving to ARCH 5311.) Each graduating MArch student will have studied both subjects.

Calendar Description

In this week-long module, students learn about the architect in society; professional ethics; models of practice; legal aspects of practice; authorities having jurisdiction over building; finance and costing techniques; and internship.

Additional Course Description

This full-time, one-week module includes two parts: a cost control workshop (2013); and presentations on leadership and advocacy by visiting practitioners (2014), attended by all B2, B5, and M6 students.

Course Requirements

- prepare an elemental cost summary for a recent building (Rowe Building, Dalhousie University) and identify where design changes could result in cost reduction (group)

Learning Objectives

- understanding of terminology and concepts for project costing
- understanding of cost management principles, cost control systems, and influences on cost
- ability to prepare an elemental cost summary for a building

Instructor

Ted Cavanagh (presentation coordinator)
Paul Westbrook (2013)

ARCH 4501.03: Representation

Year 4 BEDS - B3 term (summer)
required course - representation
65 students

Calendar Description

This course studies the expressive use of manual and digital media to present design work to various audiences, including the architectural community and the public. Topics include image editing, rendering, and the integration of text, image, and model. Design work may be presented in an exhibition installation, printed book, and/or online portfolio.

Additional Course Description

The course emphasizes the capacity of representations to identify, formalize, and focus design intentions. The primary vehicle for the course is each student's B3 Design project for a community centre.

Course Requirements

- site: documentary photographs and model of the site (individual)
- diagrams: identification and testing of systems of movement and program (individual)
- hybrid: layering, iteration, and hybridization of design information across media (individual)

Learning Objectives

- ability to consider the roles and responsibilities of digital representation
- familiarity with various software, such as InDesign, Photoshop, Illustrator, and how to work between these programs
- understanding of drawing composition and layout
- ability to criticize the work of other students
- understanding of theoretical ideas from the lectures and personal research

Instructors

Ken Kam
Leon Katsepontes

ARCH 4502.03: Representation

Year 4 BEDS - B5 term (winter)
required course - representation
65 students

Calendar Description

This course studies advanced strategies of representation. It promotes the fluent use of manual and digital media in design development, guided by architectural intentions and an understanding of architectural history, theory, and technology.

Additional Course Description

The course parallels the concurrent B5 courses in Design and Building Systems Integration. It emphasizes how representations are used differently at three stages of the design process to define, develop, and present each student's design project for a music school.

Course Requirements

- base drawings for site and program for the music school (group of 6)
- design process: development of a "hot spot" in the project (individual)
- representation of two building (individual)
- process portfolio (individual; with Design, BSI, and History courses)

Learning Objectives

- increased awareness of the field of representation
- development of representational abilities
- strengthening of fluency in design process and presentation

Instructor

Stephen Parcell

ARCH 5002.06: Urban Housing Studio (section 1)

Year 5 MArch - M2 term (fall)

core course - design

co-requisite: ARCH 5102: Housing Theory

12 students

Calendar Description

This studio explores the aesthetic, tectonic, social/cultural and economic challenges presented by contemporary high-density, mixed-use development. The relationships of architecture to urbanism, and building to city, will be explored through exemplary precedents and the design of housing and its associated commercial, institutional, and recreational components.

Additional Course Description

Halifax Regional Municipality is seeking the "requalification" of downtown Dartmouth by means of a Request For Proposals (RFP). This will involve residential densification and intensification on scattered sites, with corresponding institutional and commercial amenities and facilities.

Course Requirements

- group readings, stance, and urban design schemes (group of 3)
- schematics: a *pro forma* for the building and its site (individual)
- design development, including construction and design detailing (individual)

Learning Objectives

- ability to recognize urban structure and to recognize opportunities for development
- understanding of urban design factors: financial, design, development, and management
- understanding of HRM's land use bylaw and design guidelines
- understanding of the residential building code
- ability to develop a comprehensive design for a building at all scales and in all technical aspects (structural, constructional, and environmental)
- ability to apply principles of economy of means, environmental footprint, habitability, and aesthetics

Instructor

Grant Wanzel

ARCH 5002.06: Urban Housing Studio (section 2)

Year 5 MArch - M2 term (fall)

core course - design

co-requisite: ARCH 6510: Architectural Documentation and Analysis

12 students

Calendar Description

This studio explores the aesthetic, tectonic, social/cultural and economic challenges presented by contemporary high-density, mixed-use development. The relationships of architecture to urbanism, and building to city, will be explored through exemplary precedents and the design of housing and its associated commercial, institutional, and recreational components.

Additional Course Description

The mandate of the studio is to re-use, appropriate, and transform under-utilized sites of infrastructure and post-industrial wastelands in Montreal. Architecture is intended as a catalyst for change, by creating new economies, sustainable housing, and public spaces.

Course Requirements

- four types of dwelling units (individual)
- aggregation of dwelling units and circulation into a multi-storey building with public and semi-public spaces (individual)
- workshops in Montreal: housing fabric and site study
- urban site strategy (individual)
- elevations (individual)

Learning Objectives

- understanding of housing and urban issues
- ability to use urban mapping (ARCH 6510) to recognize opportunities in underutilized sites
- ability to resolve a design project at several scales: urban, building, and dwelling unit

Instructor

Catherine Venart

ARCH 5004.06: Urban Systems Studio

Year 5 MArch - M2 term (fall)
core course - design
12 students

Calendar Description

This studio examines the infrastructure of the metropolis and its influence on urban form and development. Topics include systems for transportation, energy use, water distribution, civic institutions, spaces of social exchange, and ecology. Students develop urban infrastructure propositions with reference to innovative urban projects worldwide.

Additional Course Description

The studio undertakes a design of a large urban sports venue. Spatial metrics associated with city inhabitants and building occupants are used to make design decisions at two system scales: urban and construction. Students apply physical and digital means to test performance of selected design attributes. The studio uses a central computer model that enables testing and iteration of proposals.

Course Requirements

- research, program and master plan development: human range of view, cone of vision, range of facial recognition; city mapping according to human dimensions, speed of movement, transport type, and distance/time ranges (group of 2 and individual)
- case study and stadium envelope geometry: velodrome track dimensions, seating bowl dimensions, velodrome history, racing events, other uses (group of 2 and individual)
- exploration and testing of design iterations: physical and digital tools for dynamic mapping and planning of stadia and associated data sources (group of 2 and individual)

Learning Objectives

- understanding of performance-driven design
- ability to use city-scale metrics to devise a master plan
- understanding of the reciprocal relationship of city, infrastructure, and institution
- ability to use metrics for occupant experience as a design component
- ability to apply computational methods (parametric modelling + scripting) to test occupant experience
- ability to use a centralised dynamic data set as the basis for project information
- ability to alternate between physical and digital prototypes

Instructor

Roland Hudson

ARCH 5007.06: Landscape Studio

Year 5 MArch - M1 term (summer)
core course - design
12 students

Calendar Description

This studio investigates architectural responses to landscape. It regards the land as a physical and cultural context requiring appropriate methods of visualization and representation. Referring to recent projects in land art, it considers how to engage local materials and interests while promoting the sustainable occupation of a particular site.

Additional Course Description

The studio utilizes latent spaces, networks, and existing public infrastructures (e.g., public conveyance, energy systems, parks, streets, and knowledge networks) in the city of Halifax. The aim is to recognize and develop urban resources through the siting and design of a small public building for education, housing, health care, protest/debate, agriculture, water access, or play.

Course Requirements

- site analysis and proposal
- seminar participation
- building design

Learning Objectives

- ability to conceive, develop, and resolve the comprehensive design of a small public building related to an urban infrastructure
- ability to use representation in a critical and innovative way to examine the role of public buildings and spaces in the city

Instructor

Roger Mullin

ARCH 5010.06: Public Architecture Studio (section 1)

Year 5 MArch - M1 term (summer)

core course - design

co-requisite: ARCH 5198: Humanities Seminar (section 1)

12 students

Calendar Description

This studio examines the role of public architecture in manifesting cultural values through the design of a civic institution. It also considers public architecture as an expression of material culture that mediates between the scales of artifact and landscape.

Additional Course Description

This comprehensive design studio introduces students to current theories and practices involving educational spaces through the design of a P–8 school for approximately 250 students in Nova Scotia. The studio work explores questions debated in the co-requisite Humanities Seminar. Students propose the site location and the programmatic components of the school, in consultation with education experts, teachers, staff, and community groups. The project explores the role of architecture in nurturing learning environments. This involves developing a critical position on context, site, program, interdisciplinary work, operations, sustainability, materiality, durability, natural light, airflow, and comfort. The work should address a range of scales, from the community and the site to the learning spaces and the human body.

Course Requirements

- learning spaces study (group of 2)
- site and program studies (group of 2)
- school design project (group of 2)
- space / tectonic / systems detail (individual)
- process portfolio and design booklet (individual)

Learning Objectives

- understanding of relations between learning and architectural design
- understanding of the relevance of collaboration with other practitioners, disciplines, and community groups
- ability to interpret social, political, and cultural issues to develop a critical position for design
- ability to develop a comprehensive design for a school building
- ability to develop integral details for a building design

Instructor

Diogo Burnay

ARCH 5010.06: Public Architecture Studio (section 2)

Year 5 MArch - M1 term (summer)
core course - design
12 students

Calendar Description

This studio examines the role of public architecture in manifesting cultural values through the design of a civic institution. It also considers public architecture as an expression of material culture that mediates between the scales of artifact and landscape.

Additional Course Description

Students design a new, 25,000-sq.ft. school in Bedford, NS. The studio uses the Newbridge Academy as a client group. Newbridge Academy is a non-profit, independent school that provides interactive, engaging, and innovative academic and athletic programs to students from junior primary to high school. The design of a new school would give it a new identity, an innovative learning environment, and world-class athletic facilities.

Course Requirements

- research case study (groups of 2)
- programming (groups of 2)
- building design (individual)

Learning Objectives

- ability to project a comprehensive design based on an architectural idea, a building program, and a site
- ability to deal with a complex, multi-functional program
- understanding of institutional-scale projects in an urban context
- ability to communicate ideas conceptually and factually
- ability to research appropriate precedents in urbanism, programming, and building science
- understanding of how architects can collaborate with allied disciplines, clients, and consultants

Instructor

Talbot Sweetapple

ARCH 5011.06: Coastal Studio

Year 5 MArch - M1 term (summer)

core course - design

co-requisite: ARCH 5113: Technology, Culture, and Society

co-requisite: ARCH 5218: Site and Material Processes

12 students

Calendar Description

This studio investigates building on the coast. It explores conjunctions of ecology, culture, and traditional technical knowledge. Through participatory design, students work with a coastal community to develop innovative responses to situations with sensitive ecologies, extreme climate, and local cultural traditions.

Additional Course Description

This course concentrates on architectural design by working with real materials in real situations. The focus is on innovation: how technological innovation takes place, what constitutes innovation in design, a sense of the complexity of innovation in building, and step-by-step design and realization of an innovative building. The course concentrates on a design-build project, exploring conjunctions of ecology, culture, and traditional technical knowledge. It works with a coastal community to develop innovative responses to situations with sensitive ecologies, extreme climate, and local cultural traditions. The course includes a twelve-day study trip to the southeast United States (coastal Texas, Louisiana, Mississippi, Alabama, and Florida).

Course Requirements

- log book on the study trip (individual)
- scaled mock-ups and full-scale design-build construction (group of 12)
- log book on the development of the individual design, group design, and building process (individual)

Learning Objectives

- understanding of building materials, manufacture, and innovative construction processes
- development of skills in observation, analysis, and formation of alternate strategies

Instructor

Ted Cavanagh

ARCH 5102.03: Housing Theory

Year 5 MArch - M2 term (fall)

core course - humanities

co-requisite: ARCH 5002: Urban Housing Studio (section 1)

12 students

Calendar Description

This course introduces the history and theory of contemporary practice in housing design and production. The focus is on the quality of housing and the residential environment. A comparative analysis of significant past and current examples is used to provide insight into the way houses and neighbourhoods are designed. This understanding is placed in the context of differing economic, political and housing market situations.

Additional Course Description

The course covers five thematic episodes in the evolution of modern housing theory and practice in the 19th and 20th centuries. Two lectures are devoted to each theme/period: the first explores the theme and investigates its impact on concurrent approaches to housing policy and planning; the second presents housing projects from the period. Housing practice is seen as an evolving process of "trial and error," with housing theory as a cumulative work-in-progress. The overarching questions are "What next?" and "How are we to meet our obligation to contribute to this accumulating body of knowledge?"

Course Requirements

- selection and description of a housing precedent
- analysis of the housing precedent and its modes of dwelling
- analysis of a significant room in the housing precedent
- examination of an informative detail in the housing precedent
- participation in seminars

Learning Objectives

- understanding of housing theories and projects in 19th- and 20th-century Europe and North America
- ability to analyze a housing precedent at various scales

Instructor

J. Grant Wanzel

ARCH 5103.03: Residential Real Estate Development

MArch - M6 term (winter)
elective course - humanities
12 students

Calendar Description

This course introduces the basic issues, vocabulary, and conceptual approaches of residential real estate development. It also engages the range of design, development, financing, approval, and construction processes that are involved in the production of housing.

Additional Course Description

Successful briefing papers, feasibility studies, and development proposals present well supported arguments on a focused topic in a succinct and easily digested format. The ability to draft such documents plays a vital role in the repertoire of every successful architect and planner. The course is organized around students' formulation of a pair of development documents for an affordable housing project.

Course Requirements

- develop a feasibility study and business plan with capital costing and operating budget (individual)
- develop a comprehensive development proposal based on development, financing, and construction processes (individual)

Learning Objectives

- understanding of the basic issues, vocabulary, and conceptual approaches of residential real estate development
- ability to do research and analysis to define the critical attributes of a situation and to identify its opportunities
- ability to marshal resources to address the situation
- ability to develop compelling supportive arguments

Instructor

J. Grant Wanzel

ARCH 5106.03: International Sustainable Development

Year 5 MArch - M1 term (summer)
core course - humanities
12 students

Calendar Description

This course examines sustainable development in developed and developing countries. Local building practices and cultural appropriateness are studied through case studies. It considers how architects have handled materials and technology to engender patterns of living in a reflective and symbiotic manner

Additional Course Description

Today all societies in the world face common challenges from global warming, rising sea levels, and depleting non-renewable energy sources, causing increasingly diverse social, economic, and political responses. New green technologies, sustainable design concepts, alternative energy sources, and carbon initiatives are reshaping the work of architects and others charged with managing and protecting the built and unbuilt environment. The premise of this course is that an architect has an important role to play in making the world a better place. Its aims are:

- to increase awareness of international sustainable development through reading historical and contemporary theories and practices
- to understand historical trends, movements, paradigm shifts, and community responses to the impacts of traditional development on human settlements
- to appreciate the power of design and creativity in the overall process of sustainable development

Course Requirements

- case study of a project by an architect or NGO whose work is considered sustainable according to the framework in the course (individual or group)
- moderated discussion on one of the readings (individual)

Learning Objectives

- awareness of how development programs and projects work in the real world
- ability to identify and evaluate successful sustainable development trends, programs, best practices, tools, and projects
- understanding of appropriate and effective roles of architects to position themselves within the broad critical and cultural sustainable development contexts

Instructor

Ramzi Kawar

ARCH 5113.03: Technology, Culture, and Society

Year 5 MArch - M1 term (summer)

core course - humanities

co-requisite: ARCH 5011: Coastal Studio

co-requisite: ARCH 5218: Site and Material Processes

12 students

Calendar Description

This course studies the technology of architecture in its broad cultural and social context. It explores the issue of technology in History, philosophy, sociology, and material culture, using contemporary and historical building as an example.

Additional Course Description

The course takes a wide view of technology and considers objects (equipment, materials, furnishings), processes (manufacture, construction, use), systems (building, distribution, infrastructure), and organization (bureaucracy, corporate, societal) as being technology, at least in part. The course combines individual student-led investigations of particular topics with a broad historical and theoretical view from readings in the history of technology. In a broad way, the course is an introduction to the history of technology as it applies to architecture. It is interdisciplinary in that it introduces concepts from the philosophy of technology and STS, and considers technological aspects of material culture and vernacular architecture.

Course Requirements

Each student investigates the past, present, and future of architectural objects or routines. These investigations are presented for discussion periodically throughout the semester.

- rhetorical object
- reactionary object
- assertive object
- seminar participation

Learning Objectives

- understanding of how architects are technologically innovative
- ability to interpret objects according to their embedded technology

Instructor

Ted Cavanagh

ARCH 5114.03: Theory of Conservation Practice

Year 5 MArch - M1 term (summer)
core course - humanities
12 students

Note: This course was offered also as a Year 5 humanities core course as ARCH 5199, section 2: Humanities Seminar in the M2 term (Fall 2013).

Calendar Description

This course studies historical and contemporary principles of architectural conservation. It introduces philosophical questions through international charters, national policies, and practice documents. It also considers issues of heritage value and principles for making informed decisions in analyzing, documenting, and conserving historic buildings.

Additional Course Description

The course reviews the historic principles that have developed our current understandings of heritage value and the purposes and principles of conservation of historic buildings. The approach is intended to initiate informed and critical decision-making in the analysis, understanding, documentation, and planning of conservation treatments and interventions. It includes a survey of original documents, current protocols, and practical exercises to demonstrate critical choices in conservation treatments that protect and enhance the heritage value of buildings from the 18th, 19th and 20th centuries.

Course Requirements

- analyze a single character-defining element of a mid-18th-century building (individual)
- do a field reconnaissance of a complex 19th-century building / landscape ensemble and propose corresponding building elements for a new building introduced into the setting (individual)
- make exterior drawings of a complementary addition to an existing characteristic mid-20th century building (group)

Learning Objectives

- understanding of historic building form, fabric, and function
- understanding of international and national conservation charters and principles
- ability to reconcile heritage value of project sites with proposed interventions, according to conservation planning guidelines

Instructor

Jeffrey Reed

ARCH 5198.03: Humanities Seminar

Year 5 MArch - M1 term (summer)

core course - humanities

co-requisite: ARCH 5010: Public Architecture Studio (section 1)

12 students

Calendar Description

This course focuses on an advanced topic in architectural humanities. The topic changes from year to year. It may emphasize history, theory, criticism, urban studies, or architecture in development.

Additional Course Description

This course introduces students to current discussions on theories of educational spaces through research into the role of architecture in nurturing learning environments. What are the current trends and debates about education and the involvement of students? How is this being addressed through technological advances? What makes a good teaching / learning space? How can schools be a safe and meaningful social place and a good environment for learning? How can architectural research and design enhance a good environment for learning? How might architectural designers develop a critical position on social context, site, program, interdisciplinary work, operations, sustainability, durability, natural light and airflow, and comfort in a learning environment?

Course Requirements

- presentation on a seminar theme (group of two)
- PowerPoint presentation on a seminar theme (group of two)
- design/research report on design process work in ARCH 5010 and related research (individual)
- seminar participation (individual)

Learning Objectives

- understanding of current debates and research on the relation between learning spaces and architectural design

Instructors

Diogo Burnay (coordinator)

Stacey Hughes

Darrell MacDonald

Terrence Smith-Lamothe

ARCH 5199.03, section 1: Humanities Seminar

Year 5 MArch - M2 term (fall)
core course - humanities
12 students

Calendar Description

This course focuses on an advanced topic in architectural humanities. The topic changes from year to year. It may emphasize history, theory, criticism, urban studies, or architecture in development.

Additional Course Description: Critical Introduction to Architectural Theory

In *The Roots of Architectural Invention*, David Leatherbarrow argues that questions, not answers, are what motivate architecture. Some of these questions have remained constant over time, demonstrating their relevance for the practice, while the answers we give change from place to place and over time. The course looks at seminal texts in architecture that address three main topics - tectonics, site, and use - at different times in history. The readings first considers questions that appear in early treatises of architecture, then considers these questions in the 20th and 21st centuries.

Course Requirements

- interpretive report on three historical texts (group of 2)
- blog participation (individual)
- essay (individual)

Learning Objectives

- understanding of key texts on tectonics, use, and site in architectural theory
- ability to engage critically with contemporary architectural discourse
- ability to place one's work in contemporary architectural discourse.

Instructor

Maria Elisa Navarro Morales

For ARCH 5199, section 2: Humanities Seminar: Theory of Conservation Practice (M2 term, Fall 2013), see ARCH 5114.

ARCH 5210.03: Life Cycle Analysis

Year 5 MArch - M2 term (fall)
core course - technology
12 students

Calendar Description

This course studies the range of environmental impacts associated with building materials and assemblies, from their raw state to the end of their useful life. It considers operating energy, embodied energy, and carbon sequestration, with particular attention to the structure and building envelope of wood framed heritage buildings.

Additional Course Description

This course deals with the complexity that results from having to make design decisions that have life cycle repercussions on both a building's performance as well as its relationship to the natural environment. The course is divided into two modules. The first module introduces the various building life cycle-oriented environmental metrics, tools, and techniques. It applies life cycle thinking to design decisions associated with several adaptive re-use/rehabilitation examples. The second module focuses on the adaptive re-use of the tower of the Dominion Public Building in Halifax.

Course Requirements

- life cycle analysis and comparison of two building envelope system details (individual)
- building assembly model for the tower of the Dominion Public Building, integrating modern subsystems (HVAC, circulation, finishes) with an existing subsystem (structure and envelope), given a change in building use (group of 4)

Learning Objectives

- understanding of how life cycle thinking can be applied to design thinking

Instructor

Austin Parsons

ARCH 5211.03: The Construction Detail

Year 5 MArch - M2 term (fall)
core course - technology
12 students

Calendar Description

This course examines the construction detail and its dialectical relationship to the architectural whole. Case studies of details in major twentieth-century buildings inform detail practice, in which students investigate material options and construction details for a project of their own design.

Additional Course Description

Wood building dominates the residential construction industry of North America and is becoming more common in both residential and non-residential projects worldwide. The course begins with an overview of the wood building industry and its subtrades, the historical evolution of wood building practices, and the intrinsic properties of the material itself. It then examines the "clutch point" in the design process where abstract concepts become real, material strategies. It emphasizes the cultural nature of construction, with reference to the idea of convention and material culture traditions. Finally, the course addresses environmental sustainability implications of wood design strategies, in terms of embodied energy and climatic response.

Course Requirements

- case study of a wood structure on the Ghost site in Kingsburg, NS
- design of a one-room schoolhouse on the Ghost site, exploring the structural, environmental, and craft potential of wood building

Learning Objectives

- knowledge of wood building systems and vocabulary
- skill in interpretation, conceptual thinking, and proposition-making for wood building
- ability to use craftsmanship in drawings and models as evidence of engagement and focus

Instructor

Brian MacKay-Lyons

ARCH 5212.03: From Principle to Detail

Year 5 MArch - M1 term (summer)
core course - technology
12 students

Calendar Description

This course advances the technological content of a concurrent design project or thesis. It focuses on the integration of building systems (e.g., structure, construction, environmental technology), beginning with an overview of principles, followed by a self-directed material exploration, and culminating in the production of a relevant building detail.

Additional Course Description

The course examines developable and non-developable surfaces in innovative weight-bearing building units for stacked wall systems. Prototype units are constructed using low-tech fabric form works. Fill materials may include earth, sand, concrete and other compressible materials. Aspects of this work are applied to the design and construction of a small structure in Norway. Areas of focus may include formwork, pattern, structural forces, system performance and weight, geometry (part to whole), specificity and redundancy in stacked wall systems, craft, assembly and manufacturing processes.

Course Requirements

- case study of an existing material construction: architectural, industrial, or clothing design (individual)
- material mockups and prototypes for fabric-formed weight-bearing units that form part of a wall (in a group, with individual documentation)
- two-week design-build project in Norway (group of 12)
- report on the projects (individual)

Learning Objectives

- knowledge of materials for forming and finishing building block units for wall structures
- understanding of the relationship of part to whole (detail to building)
- ability to conceive and develop material and detail prototypes

Instructor

Roger Mullin

ARCH 5213.03: Facades

Year 5 MArch - M1 and M2 terms (summer and fall)
core course - technology
12 students

Calendar Description

This course examines the various functions of a building facade: protection from weather, interior comfort, urban sign, and potential energy producer. It considers how a facade designed for a particular program can achieve high performance through attention to detail: building materials, manufacturing processes, and construction techniques.

Additional Course Description

The art of architectural detailing requires more than a knowledge of structure, construction, and the behaviour of materials. The course introduces the art of problem solving for buildable architectural detailing (can you actually build the detail?); encourages students to develop a systematic approach to problem solving (what comes first?); and applies a systems approach to the resolution of architectural detailing (a detail that does not take everything into consideration is not a viable detail). Complex detailing problems are analyzed and broken down into simpler tasks:

- occupancy comfort
- keeping exterior water out of the building
- keeping interior moisture from condensing within the wall and roof assemblies
- removing any moisture that may make its way into the wall assembly
- maintaining an uninterrupted vapour retarder / air barrier
- maintaining an uninterrupted layer of insulation with the proper R-value
- controlling thermal bridging

Within the four building systems of structure, envelope, services, and interiors, students evaluate detailing solutions for their suitability and performance.

Course Requirements

- elevation study: redesigned facade(s) of a previous design project (individual)
- alternate details for different parts of the facade (individual)
- facade design study: drawings of a redesigned facade, including a full 1:20 wall section and 1:5 plan and section details (individual)

Learning Objectives

- understanding of relationships among facade options, material choices, detailing, and possible performance requirements

Instructor

Danny Goodz

ARCH 5216.06: Building Systems Integration for Design Thesis

Year 6 MArch - M5 term (fall)

required course - technology

co-requisite: ARCH 9007: MArch Thesis Preparation

40 students - six groups of 7

Calendar Description

This course parallels MArch Thesis Preparation (ARCH 9007). Each student undertakes a technological study of his/her architectural design thesis through an ecological analysis of the site; a definition of performance criteria; an investigation of relevant building systems; and the design, construction, and testing of a significant material detail.

Additional Course Description

The identification of a design research question requires iteration through a series of interrelated areas of interest. Cycles of inquiry take place over various time scales, some as undocumented thought experiments, others generating material that, after critical review and interpretation, inform the following cycle. Iterations can be seen as self-similar or fractal in scale. This course is co-requisite with ARCH 9007: MArch Thesis Preparation, in which the student works with the same instructor.

Course Requirements

- three iterative cycles to identify areas of technological study (individual)
- three iterative cycles to develop technological performance objectives and undertake research (group of 2 or 3)

Learning Objectives

- ability to develop a critical position on technological aspects of a thesis project: e.g., site, material, performance, process, and systems
- ability to apply this critical position to the thesis project, using a strategic, design-led research approach (group of 2 or 3)

Instructors

Roland Hudson (coordinator)

Sarah Bonnemaïson

Jonathan Mandeville

Maria Elisa Navarro Morales

Niall Savage

Catherine Venart

ARCH 5218.03: Site and Material Processes

Year 5 MArch - M1 term (summer)

core course - technology

co-requisite: ARCH 5011: Coastal Studio

co-requisite: ARCH 5113: Technology, Culture, and Society

12 students

Calendar Description

This course studies the range of environmental impacts associated with building materials and assemblies, from their raw state to the end of their useful life. It considers operating energy, embodied energy, and carbon sequestration, with particular attention to the structure and building envelope of wood framed heritage buildings.

Additional Course Description

This course investigates two main issues: site and material processes. Topics include sensitive landscapes, ecological principles, local fabrication processes, building detailing, and problem solving techniques.

Course Requirements

- seminar presentations on four readings (individual)
- log book for field studies in the southeast United States and for design course work; it should distinguish between descriptions/observations and analyses/alternate propositions (individual)

Learning Objectives

- understanding of principles and practices of site dynamics such as ecology
- understanding of the manufacture of building materials and innovative construction processes
- development of skills in observation, analysis, and forming alternate strategies

Instructor

Ted Cavanagh

ARCH 5219.03: Technology of Heritage Conservation

Year 5 MArch - M2 term (fall)
core course - technology
12 students

Calendar Description

This course studies issues of building technology in heritage conservation. Based on the *Standards and Guidelines for the Heritage Conservation of Historic Places in Canada* (2010), it considers building technology issues germane to different conservation interventions (preservation, restoration, and rehabilitation), the appropriate use of materials and details, and the integration of building systems technology.

Additional Course Description

The course consists of three modules, based on the three building conservation interventions in the *Standards and Guidelines for the Conservation of Historic Places in Canada* (2010): preservation, restoration, and rehabilitation. The preservation module focuses on the control of moisture sources and dampness, using the Little Dutch Church as a case study. The restoration module uses the Armoury as a case study for a discussion about authenticity of details and material selection in restoration. The rehabilitation module focuses on the adaptive re-use of a designated heritage building: the tower of the Dominion Public Building.

Course Requirements

- develop a moisture control strategy for the Little Dutch Church (individual)
- develop working drawings and specifications for a window/wall detail for the Armoury (individual)
- develop a building assembly model for integrating modern subsystems (HVAC, circulation, finishes) into the tower of the Dominion Public Building (group of 4)

Learning Objectives

- understanding of selected building technology issues as they apply to preservation, restoration, and rehabilitation
- understanding of the *Standards and Guidelines for the Conservation of Historic Places In Canada* (2010)

Instructor

Austin Parsons

ARCH 5298.03: Technology Seminar

Year 5 MArch - M1 term (summer)
core course - technology
12 students

Calendar Description

This course focuses on an advanced topic in architectural technology. The topic changes from year to year. It may emphasize materials, environmental strategies, or building details.

Additional Course Description: Sustainability

This course examines the adaptive reuse of historic and modern buildings, focusing on the challenges of meeting sustainable objectives while being true to a building's cultural values. The primary issues are sustainability, change, and authenticity. It considers building systems integration in small to mid-scale public buildings from the World Heritage List, critically recognized modern buildings, and local examples. A sustainable adaptive re-use of a building can include new materials, details that enhance durability, designs that reduce the building's pollutant load, and strategies that increase energy efficiency. It may also change how the building systems fit together, visually work together, and perform.

Course Requirements

- a sustainable, adaptive re-use of a historic building - part of the School of Architecture - with a focus on building systems integration (individual)
- using authenticity as a design-thinking tool, applied to the Granville Mall (individual)
- a sustainable adaptive re-use of the Killam Library (group)

Learning Objectives

- understanding of building systems integration in small to mid-size public buildings
- understanding of principles of sustainability and authenticity
- ability to apply these principles to the adaptive reuse of a historic public building

Instructor

Austin Parsons

ARCH 5308.03 / 5309.03: Professional Practice (Co-op Work Term)

Year 5 MArch - M3 and M4 terms (winter and summer)
required course - professional practice
40 students

Calendar Description

A student works in the architectural profession for 1000 hours in no less than 24 weeks and completes a research report or assignment. Work placements must be approved by the School of Architecture. A student may apply to satisfy up to 500 hours through supervised research related to Professional Practice.

Additional Course Description

The co-op work term is integral to a student's graduate studies in architecture. The two MArch work terms are completed consecutively to encourage sustained and responsible professional experience. The student should select an architectural office and/or location by aligning it with his/her academic plan and thesis interests. During the work term, a student must be working full-time in an office, working full-time on supervised research, or actively looking for work. Work term continuation (ARCH 5310) permits up to one year of extended professional work experience.

Course Requirements

- work placement: completion and documentation of a minimum of 1000 hours of work experience (individual)
- work book: a critical analysis of the work experience, based on: direct experience, interviews, and discussions with the employer and colleagues; and research, including a review of relevant literature, legislation and professional handbooks, and the Canadian Handbook of Practice (individual)
- work term presentation: visual presentation of drawings, models, and photos of the student's work and experience (individual)
- employer's evaluation

Learning Objectives

- understanding of professional practice in architecture
- development of professional abilities
- awareness of career options after graduation

Instructors

Brian Lilley (coordinator)
Susan Fitzgerald
Cristina Verissimo

ARCH 5311.03: Professional Practice

Year 6 MArch - M6 term (winter)
core course - professional practice
40 students

Note: Because the topics for ARCH 4304 and ARCH 5311 are being switched - codes are moving to ARCH 4304, while cost control is moving to ARCH 5311 - the code module was taught in both ARCH 4304 and ARCH 5311 in Winter 2014. Each graduating MArch student will have studied both subjects.

Calendar Description

This course studies principles of professional ethics, partnerships, corporate practices, professional responsibility, and legal aspects of architectural practice. It also considers issues in practice management (contracts, reference documents, finance, costing techniques, and contract administration) with an emphasis on codes.

Additional Course Description

This full-time, one-week module includes two parts: a simulation workshop that focuses on the National Building Code as a design tool; and presentations on leadership and advocacy by visiting practitioners (attended by all B2, B5, and M6 students).

Course Requirements

- standard code template (group of 2 and individual)
- application of National Building Code to a design project (group of 2 and individual)
- critical review of visiting practitioners' responses to a question (group of 2 or 3)

Learning Objectives

- understanding of the National Building Code as a design tool
- awareness of issues in architectural leadership and advocacy

Instructors

Ted Cavanagh (presentation coordinator)
Benjie Nycum

ARCH 6002.03: Free Lab

MArch - M1 term (summer)

elective course - design

100 students - ten groups of 10 (with B3)

Calendar Description

This course complements normal studio-based learning. It pursues an architectural topic through experimental hands-on work in a group format. Topics change from year to year and may include design-build work, documentaries, landscape installations, community design projects, and interdisciplinary work. Projects may be local or involve travel to a distant site.

Additional Course Description

See ARCH 4004: Free Lab.

Course Requirements

See ARCH 4004.

Learning Objectives

See ARCH 4004.

Instructors

See ARCH 4004.

ARCH 6121.03: Architecture and Archaeoastronomy

MArch (fall)
elective course - humanities
12 students

Calendar Description

This course studies the significance of the night sky to various ancient and non- Western cultures, including the Egyptian, Celtic, Mesoamerican, Anasazi, and First Nations. It examines how celestial features and motions guided the design of buildings and influenced cultural practices, including the measurement of time.

Additional Course Description

The course demonstrates the motions of the night sky and celestial objects. It also examines structures with astronomical alignments from various cultures around the world, including Celtic (Newgrange and Stonehenge); Mesoamerican (Chichen Itza, Teotihuacan), Anasazi (Chaco Canyon, Pueblo Bonito, Casa Rinconada, Fajada Butte), First Nations (medicine wheels), and Egyptian (Great Pyramids, Abu Simbel). Sundial designs also are presented.

Course Requirements

- two writing assignments on an existing archaeoastronomical structure or site
- a physical or virtual model of an existing structure/site

Learning Objectives

- understanding of the importance of the night sky to diverse ancient cultures and how these celestial aspects were incorporated into many of their buildings

Instructor

Patrick Kelly

ARCH 6217.03: Product Development in Architecture

MArch (fall)
elective course - technology
12 students

Calendar Description

This course explores the design of manufactured building components. Through field trips, factual study, and hands-on labs, students learn the essentials of conventional and emerging production processes. They apply this knowledge to designing and prototyping a component, typically selected in support of an outside research project or a thesis.

Additional Course Description

Changing technologies of design, fabrication, and commerce give the contemporary architect unprecedented opportunities to participate in the design and manufacture of building components. The declining industrial economy of scale favoured mass production, permitting custom work only in very large or well funded projects. Our developing information economy favours mass customization, permitting the architect to collaborate on the creation and/or production of custom components, even for ordinary projects. Acquiring skills to manufacture components may help an architect find a distinct role in a large office, or strengthen the character of his/her own practice.

Course Requirements

- product development of a prototype to test appearance, ergonomics, performance, and buildability
- research compendium: field trip observations, literature reviews, business research, and lecture notes
- three focused production exercises for manufacturing the prototypes

Learning Objectives

- familiarity with manufacturing materials
- development of analytical abilities in product development
- development of fabrication skills

Instructor

Emanuel Jannasch

ARCH 6503.03: Photography in Architecture

MArch (fall)
elective course - representation
12 students

Calendar Description

This course examines architectural photography from the late nineteenth century to the present. By analyzing and applying various photographic styles and techniques, students learn about photographic representation in architecture.

Additional Course Description

The course focuses on the history, methods, and medium of photoethnography, the art and science of representing other cultures visually. It also studies the expansion of earlier photoethnography in the work of Eugène Atget, Walker Evans, Karl Blossfeldt, Bernd and Hilla Becher, and August Sander.

Course Requirements

- composition / rephotography: a contemporary photograph at the same place as a historical one
- techniques / typology: typical elements in rural Nova Scotia
- semi-self-directed project

Learning Objectives

- understanding of photoethnography
- development of skills in communication and graphic digital media

Instructor

Ken Kam

ARCH 6504.03: Montage in Architecture.

MArch (winter)
elective course - representation
12 students

Calendar Description

This course examines the history, concepts, and uses of montage in architectural representation. It also considers how digital photography and computer technology can generate various forms of montage for analyzing and developing architectural designs.

Additional Course Description

With any new digital technology, there is an old analog origin; photography is no exception. This course combines old and new processes of three different media: black and white photographic prints, digital prints, and block printing/photograving. Digital media can combine hand drawing, photography, 3D modeling, etc. in an almost seamless way to express architectural ideas, like a cinematic matte painting. This crosses conventional disciplinary boundaries between various arts, including painting, photography, sculpture, and drawing.

Course Requirements

- photographic montage in a grid to examine a site or landscape (using multiple images to convey an idea)
- digital photo-collages from image fragments of landscape, environment, vegetation, people, and lighting (using layers and perspectives)
- three-dimensional model or scene: (transforming a two-dimensional image into a three-dimensional form)

Learning Objectives

- understanding of the culture and history of photomontage
- ability to assemble fragments of different landscapes, buildings, places, people, and environments into a design illustration
- technical skills with equipment: e.g., lighting, camera movement/position, computer editing, laser cutter, large-format printer, 3D printer

Instructor

Ken Kam

ARCH 6505.03: Multimedia in Architecture

MArch (winter)
elective course - representation
12 students

Calendar Description

This course examines the use of various technologies to visualize, develop, and display multimedia presentations of architecture that may include text, graphics, photographs, sound, voice, animation, and/or video. It also considers how architectural designs can be developed using multimedia. These topics may apply also to projects in urban planning.

Additional Course Description

The first half of the course demonstrates multimedia hardware and software (Photoshop, Morph, iMovie, Final Cut Express, iDVD, etc.). In the second half, each student works on a short multimedia presentation related to architecture or planning.

Course Requirements

- written proposal with a storyboard
- multimedia presentation and a written report

Learning Objectives

- familiarity with the basics of multimedia, as applied to architecture and planning

Instructor

Patrick Kelly

ARCH 6510.03: Architectural Documentation and Analysis

MArch (fall)

elective course - representation

co-requisite: ARCH 5002: Urban Housing Studio (section 2)

12 students

Calendar Description

This course investigates techniques for documenting and analyzing existing architectural or urban conditions. Various modes of representation (drawing, model, video, and photography) are used to interpret the complex experience of physical form.

Additional Course Description

To support the co-requisite Urban Housing Studio, this course focuses on downtown Montreal by representing its multi-layered history, geography, flows, cultures, and economies. It is conducted partially during a one-week field trip to Montreal. This mapping attempts to identify areas of abandonment and change as potential sites for design.

Course Requirements

- mapping boundary lines (physical and material)
- experiential documentation (sensing and temporal)
- interactions and putting things together (translation, growth, and form)

Learning Objectives

- knowledge of various systems of measure and methods of documentation
- understanding of urban context and systems

Instructor

Catherine Venart

ARCH 8892.03: Professional Practice (Co-op Work Term)

BEDS Year 4 - B4 term (fall)
required course - professional practice
65 students

Calendar Description

A student works in some aspect of the profession for a total of 500 hours, to be accomplished in no less than 12 weeks, and completes a research report or assignment. Work placements are coordinated by the co-op coordinator for Architecture and must be approved by the School. In exceptional circumstances a student may apply to satisfy up to 500 hours of the time requirement through supervised research related to professional practice.

Additional Course Description

The work term is intended to complement the academic study of architecture at the school. It enables students to contribute to an office in a valuable way; conversely, this work experience contributes to the student's knowledge and skill in architecture.

Course Requirements

- work placement: completion and documentation of a minimum of 500 hours of work experience (individual)
- work term report: the office and its organization; projects and their organization; and technical documents done by the student (individual)
- work term poster presentation: visual presentation of drawings, models, and photos of the student's work and experience (individual)
- employer's evaluation

Learning Objectives

- understanding of professional practice in architecture
- development of professional abilities
- awareness of future options for the MArch work term

Instructor

Benjie Nycum

ARCH 9007.06: MArch Thesis Preparation

MArch Year 6 (fall)

required course - design

co-requisite: ARCH 5216: Building Systems Integration for Design Thesis

40 students - six groups of 7

Calendar Description

Within a seminar group, each student formulates a thesis question and explores it through design, analytical, and interpretive studies. The student is expected to develop and demonstrate expertise in the subject area. ARCH 9007 and ARCH 9008 must be completed in consecutive terms.

Additional Course Description

Like master's theses in other fields, an architectural thesis proceeds by formulating a research question, investigating it through a method appropriate to the discipline, and drawing conclusions. As a design thesis in architecture, it is carried out primarily through a design for a building of some kind. A thesis is initiated by the student, building on previous work s/he has done in a particular subject area. It must also align with the expertise of faculty members so that discussion and supervision are possible. The motivation for a thesis may be widely acknowledged and/or personal, and it should demonstrate a clear critical position. In Thesis Preparation, each student develops the theoretical and practical circumstances of the thesis through research. It has three phases: framing a topic, developing a thesis, and creating an architectural design proposal. It is conducted through lectures, workshops, and seminars with other thesis students, as well as independent work. The thesis proposal is also developed in ARCH 5216: BSI for Design Thesis, in which the student works with the same instructor.

Course Requirements

- documentation of research process (individual)
- oral and graphic presentation of the research (individual)
- design proposal, including keywords, title, topic, theoretical structure, program, site, and outcomes (individual)

Learning Objectives

- ability to formulate an architectural design thesis

Instructors

Sarah Bonnemaison (coordinator)

Roland Hudson

Jonathan Mandeville

Maria Elisa Navarro Morales

Niall Savage

Catherine Venart

ARCH 9008.06: MArch Thesis

MArch Year 6 (winter)
required course - design
40 students

Calendar Description

Each student proposes, develops, and completes an architectural design project that investigates the thesis question. The thesis concludes with a graphic/model presentation, an oral examination, and a formal thesis document that is submitted to the university. The entire thesis requires a minimum of two consecutive terms of residence.

Additional Course Description

Faculty supervisors are assigned to students based on their expertise in the area of study. Each student uses his/her ARCH 5216 BSI for Design Thesis and ARCH 9007 Thesis Preparation work as a basis for the thesis project. He/she works closely with a thesis committee, normally meeting once a week with the supervisor and every few weeks with both the supervisor and the advisor. The completed thesis is examined by an expanded committee that includes an external examiner.

Course Requirements

- design presentation
- written and illustrated thesis report

Learning Objectives

- ability to complete an architectural design thesis

Instructors

Sarah Bonnemaison (coordinator)
Diogo Burnay
Ted Cavanagh
Susan Fitzgerald
Richard Kroeker
Brian Lilley
Christine Macy
Roger Mullin
Stephen Parcell
Talbot Sweetapple
Niall Savage
Catherine Venart
Cristina Verissimo

4.4 Résumés for Faculty and Adjuncts

The following résumés are for faculty members, as well as adjunct instructors who taught during the 2013–14 academic year (fall, winter, and summer terms). Each person's post-secondary education and teaching history are shown in full. Other information is limited to activities after 2008, when the last APR was submitted.

4.4.1 Faculty Members



Sarah
Bonnemaïson



Diogo
Burnay



Ted
Cavanagh



Susan
Fitzgerald



* Roly
Hudson



Emanuel
Jannasch



Patrick
Kelly



Richard
Kroeker



Brian
Lilley



Brian
MacKay-Lyons



Christine
Macy



** Steven
Mannell



Roger
Mullin



* Elisa
Navarro.Morales



Stephen
Parcell



Austin
Parsons



Niall
Savage



Talbot
Sweetapple



Catherine
Venart



Cristina
Verissimo

* resigned December 2013

** on secondment to College of Sustainability

Sarah Bonnemaïson
Associate Professor

Faculty member (100%)

Courses Taught in 2013–14		Term
ARCH 4111.03	Architectural History & Theory - 19th Century	winter
ARCH 5216.06	Building Systems Integration for Thesis	fall
ARCH 9007.06	MArch Thesis Preparation	fall
ARCH 9008.06	MArch Thesis	winter
Teaching		
Associate Professor	Dalhousie University	2007–present
Assistant Professor	Dalhousie University	1997–2007
Assistant Professor	University of California, Los Angeles	1998–1999
Sessional Instructor	Technical University of Nova Scotia	1994–1997
Lecturer	Nova Scotia College of Art and Design	1993–1996
Lecturer	University of Queensland (Australia)	1991
Lecturer	University of British Columbia	1990
Education		
PhD (Human Geography)	University of British Columbia	1995
MSc (Arch. Studies)	Massachusetts Institute of Technology	1985
BSc (Mathematics)	Concordia University	1985
BArch	Pratt Institute	1983

Current Research / Practice Areas

Lightweight and tensile structures, motion studies in architecture, architectural installations, temporary urbanism of festivals, responsive environments and electronic textiles for architectural applications.

Recent Scholarship (Research and Creative Activity)

Design Practice

1986–present. Filum (with Christine Macy): principal
2011–14. SSHRC Research/Creation Grant in Fine Arts, “E-Motion. Studies in the Age of Responsive Environments.” \$233,242. Principal investigator, with Robin Muller.
2011. Innovacorp Early Stage Commercialization Fund. \$5,000.
2009. Matching funds for the AIF project “Electronic Applications of Architectural Textiles.” \$227,000. Nova Scotia Research and Innovation Fund.
2007–11. Research and development grant for Electronic Applications of Architectural Textiles, Atlantic Innovation Fund, CAN \$1.4 million over a 3-year period. Co-principal investigator with R. Muller.

Publications

Books

2011. Bonnemaïson, Sarah. *@Lab, Architextile Laboratory: Electronic Textiles in Architecture* (exhibition catalogue). Kentville, NS: Gaspereau Press.
2009. Bonnemaïson, Sarah, and Ronit Eisenbach, ed. *Installations by Architects*. New York: Princeton Architectural Press.

Book Chapters

2013. Bonnemaïson, Sarah. “Performance and Ergonomics in the Unité d’Habitation of Marseille.” In *Architecture as Performing Art*, ed. Gray Read and Marcia Feuerstein, 61–72. London: Ashgate.
2009. Bonnemaïson, Sarah, and Christine Macy. “Le dur et la durée en architecture.” In *L’architecture et l’événement: Cahiers Thématiques* 8. Paris: Editions de la Maison des sciences de l’homme.

Articles

2013. Bonnemaïson, Sarah. “Electronic Textiles for Architecture.” *Open Arts Journal* 2 (Fall).

Exhibitions

2013. “My Mother’s Kitchen” (video). Dalhousie Art Gallery.
2011. Exhibition of four years of research at the @Lab. Faculty of Architecture and Planning, Dalhousie University.

2011. Exhibition of the research work of @Lab. The Museum of Textiles, Boras, Sweden.
2009–2011. "Installations by Architects." Touring exhibition of 30 installation projects and videos, curated by Sarah Bonnemaïson and Ronit Eisenbach. Dalhousie University; University of Texas at Austin; Université Laval; Parsons School of Design, New York; University of Oregon, Eugene; Graz, Austria; AHO, Oslo, Norway; Cambridge Galleries, Cambridge, Ontario.

Conference Papers

2011. Bonnemaïson, S., and S. Yates. "Digit and Digital." *Ambiance 11*, The Swedish School of Textiles, University of Boras, Sweden.
2011. Bonnemaïson, S. "The Work of the @Lab." *Ambiance 11*, The Swedish School of Textiles, University of Boras, Sweden.
2011. Muller, R., and S. Bonnemaïson. "Creating a Reactive Stage Set and Costume." *Smart Fabrics*, London, UK.

Poster

2010. "Crique: A Responsive Massage Enclosure." *Fascia and Oestheopathy*, Freii Universitat, Amsterdam.

Videos

2011. "Artisans du Changement" (television show). Carlos Ferrand, director. Radio Canada Television.
2011. "My Mother's Kitchen" (videos). Carlos Ferrand, videographer; S. Bonnemaïson, artistic director.
2010. @Lab research work (video). Ariella Pahlke, photography and editing.
2010. "Gestures" (video). Ariella Pahlke, photographer, for touring exhibition, "Installations by Architects."

Catalogue

2010. "Fabrication Studio Production: Textiles For Interiors." Cambridge Galleries, Cambridge

Public Lectures and Symposia

2011. "Digit and Digital." *Ambiance*, The Swedish School of Textiles, University of Boras, Sweden.
2010. "Looking at Festival Architecture." *HafenCity*, Universitat Hamburg, Hamburg, Germany.
2010. "Working with Electronic Textiles." The Art Academy, Vienna, Austria.
2010. "Why Installations Matter." *Haus der Architektur*, Graz, Austria.
2010. "Les Installations, une façon de penser l'architecture." Université Laval, Québec.
2010. "Festival Architecture." Public Art Special Session, National Capital Commission, Ottawa.
2010. "The Work of @Lab." Faculty of Engineering Alumni Club, Dalhousie University.
2009. @Lab open house for Dalhousie and NSCAD Universities.
2009. "Call and Response." Responsive Environments Colloquium, University of Waterloo.
2009. "Installations by Architects: Introduction to the Exhibition." Faculty of Architecture and Planning, Dalhousie University.

Recent Service (University, Academic, Professional, and Public)

2013. Member, Adjudication Committee for Doctoral Awards, SSHRC.
2008–present. Member, Advisory Committee on Planning, Design and Realty, National Capital Commission, Ottawa.
2004–2012. Board Member, Live Arts Dance Production, Halifax.
2000–present. Correspondent. *Fabrics and Architecture*, Minneapolis.

Recent Honours and Awards

2010. Merit Award, The Design Exchange, Toronto.

Diogo Burnay
Associate Professor
Director, School of Architecture

Faculty member (100%)
Registered architect (Portugal)

Courses Taught in 2013–14		Term
ARCH 4005	Design (B5)	winter
ARCH 5010	Public Architecture Studio	summer
ARCH 5198	Humanities Seminar	summer
ARCH 9008	MArch Thesis	winter

Teaching		
Associate Professor	Dalhousie University	2012–present
Director, School of Architecture	Dalhousie University	2012–present
Assistant Professor	Technical University of Lisbon	2003–2012
Cass Gilbert Visiting Professor	University of Minnesota	2002
Assistant Lecturer	Technical University of Lisbon	1999–2003
Studio Instructor	Universidade Moderna, Lisbon	1997–1999

Education		
(PhD in progress)	Universidade do Porto	
MSc (Arch)	University College London	1995
Dipl. Arch.	Technical University of Lisbon	1988

Current Research / Practice Areas

Design practice in public architecture, contemporary architecture in the public realm, architectural tectonics.

Recent Scholarship (Research and Creative Activity)

Design Practice

1999–present. CVDB Arquitectos: principal
 2014. Talatona Ministeries Offices, Luanda, Angola.
 2013. Megalithic Museum, Mora, Portugal (construction 2014–2016).
 2013. Talatona Conference Centre, Luanda, Angola (construction: 2014–2016).
 2012–2013. House, Santarém Historical Centre, Portugal (construction 2014–2015).
 2010–2011. Research project for the characterization and regeneration of the historic urban areas of Seixal e Arrentela (with Luisa Reis Paula).
 2010–2012. Braancamp Freire High School, Pontinha, Odivelas, Lisbon.
 2010. Municipal Market of Algés.
 2010. Arraiolos Tapestry Museum, Arraiolos.
 2010. Transforma studios and headquarters, Torres Vedras (with Pedro Gadanho).
 2010–2013. 28 public competition entries for projects in Portugal, Poland, Slovenia, and Spain.

Publications

Work in Publications by Others

2010–2014. 27 articles on design projects by CVDB Arquitectos in print journals published in Brazil, Canada, China, France, Italy, Mexico, Netherlands, Portugal, Russia, South Korea, and Spain.
 2010–2014. 163 articles on design projects by CVDB Arquitectos in Internet publications.

Exhibitions

2010–2012. Five exhibitions of design competition projects, Portugal.

Lectures

2012. "Teaching and Practice." AAPEI, Charlottetown, PEI.
 2012. "Senior Collective Housing." Technical University of Lisbon, Portugal.
 2011. "Inhabiting Landscapes." National Centre for Culture, Lisbon, Portugal.
 2011. "Urban Renewal Experiments." Porto, Portugal.
 2011. "Stone, Sedimentation, and Architecture." Vila Viçosa, Portugal.
 2011. "Learning Spaces." Lusófona University, Lisbon, Portugal.

2011. "Dwelling and Landscape." Technical University of Lisbon, Portugal.
2010–2012. Nine public lectures on office work by CVDB Arquitectos in Halifax and Portugal.

Recent Service (University, Academic, Professional, and Public)

2013. Projects committee member, Portuguese Architecture and Urbanism Academic Review.
2013. Invited participant, Macau Sessions: dialogues on architecture and society publication.
2013. External thesis examiner, Faculdade de Arquitectura, Universidade Técnica de Lisboa.
2012. Jury member, Lieutenant Governor's Awards, Architects Association of Prince Edward Island.
2011. External Examiner, School of Architecture, Dalhousie University.
2010, 2012. Jury member, Lieutenant Governor's Design Awards, Nova Scotia Association of Architects.
2010–2014. External examiner, Bartlett School of Architecture, University College London.
2010. Jury president, ideas competition for high school students, Lisbon Architecture Triennial.
2010. Scientific committee member and session moderator, Once Upon a Place conference, Lisbon.

Recent Honours and Awards (with CVDB Arquitectos)

2014. Winner, ArchDaily Best Building of the Year (Education); for Bramcaamp Freire High School.
2013. Winner, World Architecture News Award (Education); for Bramcaamp Freire High School.
2013. First prize, Building Award, Amadora Municipal Architecture Awards, 2013; for Bramcaamp Freire High School.
2013. Odivelas Municipality Award for Architecture; for Braancamp Freire Secondary School.
2012. First prize, public competition for Museum of the Megalithic, Mora, Portugal.
2012. First prize, invited competition for Mirario School, Lisbon.
2010. First prize, public competition for Cascais High School, Cascais, Portugal.
2010. First prize, public competition for Arraiolos Tapestry Museum, Arraiolos, Portugal.
2009–2011. Other competition prizes: 3 second prizes, 2 honorable mentions.

Professional Memberships and Qualifications

Portuguese Architecture Chamber: registered architect

Ted Cavanagh
Professor

Faculty member (100%)

Courses Taught in 2013–14		Term
ARCH 3302.01	Professional Practice (B2)	winter
ARCH 5011.06	Coastal Studio	summer
ARCH 5113.03	Technology, Culture, and Society	summer
ARCH 5218.03	Site and Material Processes	summer
ARCH 6002.03	Free Lab	summer
ARCH 9008.06	MArch Thesis	winter

Teaching		
Professor	Dalhousie University	1999–present
Professor and Chair	Clemson University, School of Architecture	2006–2008
Associate Professor	Dalhousie University	1997–1999
Adjunct Professor	Lehigh University	1991–1992, 1997–98
Associate Professor	Technical University of Nova Scotia	1989–1997
Assistant Professor	Technical University of Nova Scotia	1984–1989

Education		
PhD	Lehigh University	2002
BArch	McGill University	1974
BSc	McGill University	1971

Current Research / Practice Areas

Architectural design (teaching and practice); scholarship in coastal planning and history of technology; production of design-build projects for coastal communities, focusing on innovative construction methods.

Recent Scholarship (Research and Creative Activity)

Design Practice

2012–2013. Design-build of treehouse accommodation, Fundy National Park, NB.

2011–2012. Design-build of camera obscura, Cheverie, NS.

2010. Design-build of dining pavilion, Ross Creek Arts Centre, NS.

Publications

Articles

2013. Cavanagh, Ted. "Innovative Structures and the Design-Build Model of Teaching." In *Proceedings of the 2013 Building Technology Educators' Society Conference*, ed. Andrzej Zarzycki and Robert Dermody, 405–10.

2013. Cavanagh, Ted. Review of Robert Mellin, *Newfoundland Modern: Architecture in the Smallwood Years, 1949–1972*. *University of Toronto Quarterly* 82, no. 3.

2012. Cavanagh, Ted. "Promoting Innovation through Real-World Teaching." *Focus on University Teaching and Learning* 20, no. 1: 6–7.

2011. Cavanagh, Ted. Article on lamella dining pavilion, Ross Creek Arts Centre. *Canadian Architect* 56, no. 1: 34–7.

Conference Papers and Sessions

2014. Cavanagh, Ted, and Patrick Harrop. "Theorizing l'objet technique: Reconciling the disparity between emerging 'maker culture' and traditional 'design/build'." Convegno di STS Italia, Milan.

2014. Cavanagh, Ted. "Diachronous Dilemma: Rediscovering American Hegemony in Nineteenth-Century Multicultural Design." Convegno di STS Italia, Milan.

2014. Session co-chair. Design Build Exchange, ACSA AGM conference, Miami.

2014. "Connecting Cultures." Imagining Canada's Future, SSHRC, Halifax.

2012. Cavanagh, Ted. "The Parallel Worlds of Technology and Architecture." Society for the Study of Architecture in Canada, Ottawa.

2012. "Innovative Structures and the Design-Build Model of Teaching." Building Technology Educators Society, Boston.

- 2011. Panelist respondent to David Pantalony, "Provenance Research and Communicating the History of Science to the Public." Science and its Publics: Situating Science Knowledge Cluster and the Canadian Centre for Ethics in Public Affairs.
- 2010. Cavanagh, Ted, and Paul Gallant. Fostering Entrepreneurship in the Creative Economy, Kingston.
- 2010. Presentation and panel member, Global Health Conference, NCCDH, Halifax.
- 2009. Alumni show exhibit, McGill University School of Architecture.

Lectures

- 2013. Lecture at Oxford Brookes University.
- 2010. Lecture to History of Technology class, University of King's College, Halifax.
- 2009. Lectures at Clemson University, Conseil des Arts de Cheticamp, University of British Columbia, and University of California at Berkeley.

Work in Publications by Others

- 2013. *Chronicle Herald* (Halifax) (on design/build of Cheverie brick shell). June 1.
- 2012. *Chronicle Herald* (Halifax) (on design/build of Cheverie brick shell). May 14.
- 2012. Madigan, Damian. "Prefabricated Housing and the Implications for Personal Connection." 18th Annual Pacific Rim Real Estate Society Conference, Adelaide.
- 2011. *Chronicle Herald* (Halifax) (on design-build of Cheverie brick shell). Nov. 7.
- 2011. *Dalhousie Gazette* (on design-build of Cheverie brick shell). Oct. 28.
- 2011. "Mainstreet Nova Scotia," CBC Radio (interview on design-build of Cheverie brick shell). July 22.
- 2011. *DalNews* (on design-build of Cheverie brick shell). July 8.

Recent Service (University, Academic, Professional, and Public)

- 2014. Conference organizer and co-chair, ACSA Fall Conference, Halifax.
- 2014. Chair, Senate/Graduate Studies Review of Faculty of Engineering, Dalhousie University.
- 2013, 2014. Jury member, Insight Grants, SSHRC.
- 2013. External referee for tenure and/or promotion, Temple University.
- 2013. Conference coordinator, "Leadership and Advocacy." School of Architecture, Dalhousie University.
- 2013. External examiner, School of Architecture, University of Arizona, Tuscon.
- 2013. Member, NAAB/CACB accreditation team, University of Toronto.
- 2012. Conference coordinator, "Architecture and Innovation." School of Architecture, Dalhousie University.
- 2011. Chair, NAAB/CACB accreditation team, Université de Montréal.
- 2010. Member, NAAB/CACB accreditation team, Ryerson University
- 2009. Member, NAAB/CACB accreditation team, State University of New York, Buffalo.
- 2009–2012. Member, Advisory board to Canada Council for the Venice Biennale.

Recent Honours and Awards

- 2013–2020. Partnership Grant, SSHRC.
- 2013–2016. Partner, Erasmus Mundus Action 3, Technische Universität Berlin.
- 2011–2014. Research/Creation Grants in Fine Arts, SSHRC.
- 2011, 2013, 2014. Employment grants, Student Nova Scotia Economic Development.
- 2010. Travel grant: Fostering Entrepreneurship in the Creative Economy, Queen's University.
- 2010. Destination Development Grant for Cheverie. Nova Scotia Department of Tourism.

Susan Fitzgerald
Assistant Professor of Practice

Faculty member (33%)
Registered architect (Canada)

Courses Taught in 2013–14		Term
ARCH 3001.06	Design (B1)	fall
ARCH 3301.01	Professional Practice (B1)	fall
ARCH 4005.06	Design (B5)	winter
ARCH 9008.06	MArch Thesis	winter
Teaching		
Assistant Professor of Practice	Dalhousie University	2013–present
Adjunct	Dalhousie University	2001–2013
Education		
MArch (First Prof.)	Dalhousie University	1999
BEDS	Technical University of Nova Scotia	1997
B. Interior Design	Kwantlen University College, BC	1993
BSc	University College London, UK	1989

Current Research / Practice Areas

Design practice in institutional, civic, residential, and design-build architecture; research in spatial and social dynamics of cities, productive urban landscapes, and comparative models of practice.

Recent Scholarship (Research and Creative Activity)

Design Practice

2006–present. Fowler Bauld & Mitchell Architects: partner.

2006–present. Susan Fitzgerald Architecture: partner.

Institutional Buildings

2014. Central Administration Building for the College of Science, Technology and Applied Arts of Trinidad and Tobago, Chaguanas, Trinidad and Tobago.

2013. CBC-Radio Canada, Halifax.

2013. East Preston United Baptist Church, East Preston, NS.

2012. Halifax Central Library, Halifax.

2011. Kings County Academy, Kentville, NS.

2010. Mona Campbell Building, Dalhousie University, Halifax.

2010. Ecole de la Rive-Sud P-12, Bridgewater, NS.

2010. Oxford P-12 School, Oxford, NS.

Residential and Hospitality Buildings

2014. Milton/Kennedy Studio, Kingsburg, NS.

2012. Cabot Links Lodge, Inverness, NS.

2011. 910 Bedford Highway, Bedford, NS.

Health Care Building

2012. Dr. William D. Finn Centre for Forensic Medicine, Dartmouth, NS.

Residential Buildings: Design/Build with Brainard Fitzgerald Developments

2014. King Street Live/Work/Grow, Halifax.

2012. Vineyard House, Wolfville, NS.

2010. Fuller Terrace Live/Work, Halifax.

Publications

Work in Publications by Others

2014. Taylor, Stephanie. "Dr. William D. Finn." *Architecture Canada (RAIC)*.

2013. Dunlop, Dale. "Game Changer." *Saltscapes*. Spring/Summer.

2013. Fridman, Candice, Sarah Musgrave, and Susan Nerberg. "The enRoute Hotel Design Awards." *enRoute*. September.

2013. Hein, Treena. "A Bridge Between Worlds." *Top Glass*. June.

2013. McGrath, Charles. "In Cape Breton. A Rugged Golf Getaway." *New York Times*. June 7.

2012. "50 Most Influential People in Halifax." *Halifax Magazine*. May.

2012. Horn, Bethany. "Unique Fuller Terrace house will soon get a green roofed north end friend." *OpenFile.ca*. June.

2012. Rochon, Lisa. "Finding Sanctuary in Superb Design." *The Globe and Mail*. June 2.

2011. Arsenault, Dan. "Award Winning Halifax Architect to Tour Latin American Cities." *Chronicle Herald* (Halifax), August 28.

2011. Interview by Bill Roach, CBC Mainstreet. August 14.

2011. "Halifax Firm Wins 50K Architecture Prize." *CBC.ca*. August 11.

2011. Chodikoff, Ian. "Fuller Life." *Canadian Architect*. April.

2011. "A Day in the Life." *Dalhousie Alumni Magazine*.

2011. Denny, Ellen. "An Architecture Honour." *Dal News*. October 11.

2011. Hume, Christopher. "Building a Future Edible City." *Toronto Star*. August 20.

2011. Johnson, Ron. "Where Ecology and Architecture Collide." *Architectural Profiles*. Winter.

2011. Knox, Carson. "Home of the Future." *The Coast City Guide* (Halifax).

2011. Martin, Kathleen. "Sense and Sustainability." *Progress Magazine* 18, no. 5.

Exhibition

2013. "Productive . urban . landscapes . cities . cultivation . context" (exhibition of Prix de Rome work). Faculty of Architecture and Planning, Dalhousie University.

Recent Honours and Awards

2013. *enRoute Magazine* (Air Canada) in partnership with RAIC Hotel Design Awards: Best Overall Architecture for Cabot Links Lodge.

2012. Lieutenant Governor Award, Award of Merit for Dr. William D. Finn Centre for Forensic Medicine.

2012. Lieutenant Governor Award, Honorary Mention for Cabot Links Lodge.

2011. Professional Prix de Rome in Architecture, Canada Council for the Arts.

2010. Lieutenant Governor Award, Award of Merit for Fuller Terrace Live/Work.

2010. Lieutenant Governor Award, Citation for Mona Campbell Building, Dalhousie University.

2010. Lieutenant Governor Engineering Award for Mona Campbell Building, Dalhousie University.

2009. Lieutenant Governor Award, Award of Merit for Bridgeview Drive.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect and council member

Alberta Association of Architects: member

Architects' Association of New Brunswick: member

Canadian Green Building Council: member

Interior Designers of Nova Scotia: member

Leadership in Energy and Environmental Design (LEED): accredited

National Council for Interior Design: NCIDQ

Royal Architectural Institute of Canada: member

Roly Hudson
Assistant Professor

Faculty Member (100%)
(resigned in December 2013)

Courses Taught in 2013–14		Term
ARCH 5004.06	Urban Systems Studio	fall
ARCH 5216.06	Building Systems Integration for Thesis	fall
ARCH 9007.06	MArch Thesis Preparation	fall
Teaching		
Assistant Professor	Dalhousie University	2010–2013
Education		
PhD	University of Bath	2010
MArch	University of Bath	2003
BSc General Architecture	University of Bath	2001

Current Research / Practice Areas

Process design, tool building, building information models.

Recent Scholarship (Research and Creative Activity)

Design Practice

2011–present. Plugin to rhino3d for spectator view quality analysis in sports stadiums, with Populous Architects, London.

2011. Jeddah Olympic bid. Generation geometry for 80,000-seat stadium, for Marks Barfield Architects, London.

2010. Popeso. Plugin to rhino3d for execution of evolutionally structural optimisation and graphical interpretation of results, with Populous Architects. London.

Publications

Articles

2011. Shepherd, P., R. Hudson, and D. Hines. "Aviva Stadium: A Parametric Success." *International Journal of Architectural Computing* 2, no. 9: 167–85.

2011. Hudson, R., P. Shepherd, and D. Hines. "Aviva Stadium: A Case Study in Integrated Parametric Design." *International Journal of Architectural Computing* 2, no. 9: 187–203.

2011. Hudson, R. "Capturing Unknown Knowledge in Design." *Ehituskunst (Estonian Architectural Review)* 53/54.

Book Chapters

2013. Hudson, R., and M. Westlake. "Metrics of Human Experience: Occupant Driven Parametric Design Processes." In *Inside Smart Geometry*, ed. T. Peters and B. Peters. Chichester: Blackwell-Wiley.

2011. Williams, C., and R. Hudson. "Distributed Intelligence or a Simple Coherent Mental Model." In *Distributed Intelligence in Design*, ed. T. Kocaturk. Chichester: Blackwell-Wiley.

Technical Papers

In preparation. Hudson R., and M. Westlake. "Design Guidelines for Spectator Seating Facilities in Sports Venues."

2012. Hudson, R., and G. Schaefer. "Leadership in Energy and Environmental Design (LEED) Considerations on the Beneficial Use of Passive Optical LAN (POL) in Building Construction."

2011. Hudson, R., and J. Simmons. "Leadership in Energy and Environmental Design (LEED) Considerations on the Beneficial Use of Tire Derived Aggregate (TDA) in Building Construction and Site Development."

Conference Papers

2012. Lilley B., R. Hudson, K. Plucknett, and R. Macdonald. "Ceramic Perspiration: Multi-scalar Development of Ceramic Material." *ACADIA 2012 Conference Proceedings*.

2011. Hudson, R., D. Macdonald, and M. Humphreys. "Race Track Modeller. Developing an Iterative Design Workflow Combining a Game Engine and Parametric Design." *ACADIA Regional 2011 Conference Proceedings*.

2011. Institute of Research in Materials, Dalhousie University.

Conference Poster

2011. Hudson, R. "Architectural Tooling." ACSA, Montreal.

Conference Workshop

2012. Lilley, B., R. Hudson, R. Macdonald, and K. Plucknett. "Transgranular Perspiration." Smart Geometry. Rensselaer Polytechnic Institute, Troy, NY.

Lecture

2013. "Digital Fabrication with Timber Studio." School of Architecture and Design, University of Tasmania.

Recent Service (University, Academic, Professional, and Public)

2010–2013. School representative, Association of Collegiate Schools of Architecture.

Recent Honours and Awards

2011. Best paper in conference: "Race Track Modeller: Developing an Iterative Design Workflow Combining a Game Engine and Parametric Design." ACADIA regional conference.

2011. AVIVA Stadium Business Awards: New Venue of the Year.

2011. RIBA EU: Architectural Excellence, for AVIVA Stadium.

2011. Lama Awards (Local Authority Members Association): National Impact: Best Civil Engineering Project and Best Architect, for AVIVA Stadium.

2011. European EPSE Awards, for innovative of polycarbonate in AVIVA Stadium.

2010. British Expertise international awards: Sport, Leisure and Tourism category, for AVIVA Stadium.

2010. IPA Architecture Award: Leisure & Hospitality, Europe & Africa Property Awards, in association with Bloomberg Television, for AVIVA Stadium.

2010. WAF–ONCE Accessibility Awards, World's Best New Building, for AVIVA Stadium.

2010. WAF Awards, highly commended in the Best New Sporting Facility category, for AVIVA Stadium.

Professional Memberships and Qualifications

RIBA Parts 1 and 2

Emanuel Jannasch
Senior Instructor

Faculty member (50%)
Technician (50%)

Courses Taught in 2013–14		Term
ARCH 3002.06	Design (B2)	winter
ARCH 3207.03	Building Technology (B1)	fall
ARCH 3208.03	Building Technology (B2)	winter
ARCH 6217.03	Product Development in Architecture	fall
Teaching		
Instructor	Dalhousie University	2008–present
Adjunct	Dalhousie University	1998–2008
Film design instructor	various Canadian colleges and universities	1992–2007
Education		
MArch (First Prof.)	Dalhousie University	1998
BEDS	Technical University of Nova Scotia	1996
	Cornell University	1978–1980

Current Research / Practice Areas

History and future of building; relationships between film design and material culture.

Recent Scholarship (Research and Creative Activity)

Design Practice

In preparation. Designs for two residences.

Publications

Conference Papers and Poster

2013. "Analysis and Integration of Fabrication Systems." ACSA conference.
2012. "Embodied Information in Structural Timber." Conference on Structures and Architecture, Guimarães, Portugal. Published in proceedings.
2012. "Logistical Aspects of Prefabrication." ACSA conference. Published in proceedings.
2012. "Repairing a Mis-diffusion." ACSA / BTES conference. Published in *BTES Connector*.
2010. "Harvesting Information." Poster at ACSA conference, Montreal.

Lectures

2012. Seminar class for advanced con.ed. screenwriting students, University of Toronto.
2012. Seminar class for undergraduate film students, Sheridan College.
2012. Lecture for non-film fine arts undergrads, York University.

Recent Service (University, Academic, Professional, and Public)

- 2014–present. Faculty representative, Senate Appeals Committee, Dalhousie University.
2014–present. Member, President's Advisory Committee on Sustainability, Dalhousie University.

Professional Memberships and Qualifications

Royal Architectural Institute of Canada: member
Nova Scotia Association of Architects: intern member

Patrick Kelly

Lecturer

Faculty member (30%)

Technician (70%)

Courses Taught in 2013–14

		<i>Term</i>
ARCH 6121.03	Architecture and Archaeoastronomy	fall
ARCH 6505.03	Multimedia in Architecture	winter

Teaching

Lecturer	TUNS / Dalhousie University	1990–present
Prog. Analyst / CAD Tech.	Technical University of Nova Scotia	1983–1990

Education

MSc (Engineering Math.)	Technical University of Nova Scotia	1983
BSc (Mathematics)	Dalhousie University	1978

Current Research / Practice Areas

The use of multimedia tools in architectural design, geographical information system, and astroarchaeology (astronomical alignments of ancient structures).

Recent Service (University, Academic, Professional, and Public)

2006–present. Editor, *RASC Observer's Handbook*, Royal Astronomical Society of Canada.

2006–present. Regional Coordinator, *Maritimes Breeding Bird Atlas*.

2005–present. Treasurer and National Council Representative, Royal Astronomical Society of Canada (Halifax Centre).

Richard Kroeker
Professor

Faculty member (100%)
Registered architect (United Kingdom)

Courses Taught in 2013–14		Term
ARCH 4003.03	Design (B3)	summer
ARCH 4005.06	Design (B5)	winter
ARCH 4212.03	Building Systems Integration (B5)	winter
ARCH 4501.03	Representation (B3)	summer
ARCH 6002.03	Free Lab	summer
ARCH 9008.06	MArch Thesis	winter

Teaching		
Professor	Dalhousie University	2003–present
Visiting Professor	University of Minnesota	2003–2006
Associate Professor	Dalhousie University	1997–2003
Assistant Professor	Technical University of Nova Scotia	1991–1997

Education		
AA Diploma	Architectural Association	1984
BES	University of Manitoba	1976

Current Research / Practice Areas

Sustainable building strategies, community architecture; cultural continuity and invention, innovative construction in green wood, recycled materials, and earth formed structures.

Recent Scholarship (Research and Creative Activity)

Design Practice

1998–present. Richard Kroeker Design Inc.: principal.

2004–2009. Piskwepaq Design Inc. (with Brian Lilley and Roger Mullin): partner

Buildings and Projects

2014. Hills of Music Performance Theatre, Rasessa, Botswana.

2014. Solar warmer and mobile warming hut, Winnipeg Forks.

2013–2014. Sisson residence extension, Elm Creek, Manitoba.

2013. Acadia First Nation community centre, Gold River, NS.

2013. Tall Pines Boat Marina, Lake of the Woods, Ontario.

2013. Boat sales and maintenance, Lake of the Woods, Ontario.

2012. Cann-MacWilliams residence, Elm Creek, Manitoba.

2011. Bakgatla Bolokang Matshelo hospice pavilion, Mochudi, Botswana.

2011. Buddhist meeting hall, Windhorse Farm, NS.

2011. Horse barn, Hubbards, NS.

2010. Pow wow Structure, Kinistin Saulteaux Nation; with Dalhousie University Cities and Environment Unit

2010. Warming huts, Winnipeg Forks.

Publications

Article

2013. Kroeker, Richard. "Lernen von der Architektur der Indigenen Volker Amerikas." *Detail: Review of Architecture* 2013, no. 5.

Work in Publications by Others

2014. Van Uffelen, Chris, ed. *The Book of Architecture Drawings and Sketches*, 200–4. Salenstein, Switzerland: Braun.

2012. Robert McCarter, ed. *Ghost 13: Ideas in Things*. Princeton: Princeton Architectural Press.

2011. McMinn, John, ed. *Liminal States: Landscapes of Scarcity and Excess*. Cambridge, ON: Riverside Press.

2010. Jencks, Charles, and Edwin Heathcote. *The Architecture of Hope*, 77. London: Frances Lincoln.

Exhibitions

- 2011. Ghost 13: Ideas in Things conference, Kingsburg, NS.
- 2010. International Architecture Award Winners. Chicago Athenaeum / European Centre for Architecture, Art Design and Urban Studies, Madrid, Spain; then touring Europe.
- 2010. Penser Tout Haut / Faire l'Architecture. UQAM, Montreal.
- 2010. "Om Vi Vill." Wood 2010 exhibition, Virserum Art Museum, Virserum, Sweden; then touring Europe.

Lectures

- 2013. School of Architecture and Planning, University of Botswana.
- 2012. Keynote speaker, Alvar Aalto Symposium, Helsinki, Finland.
- 2012. Invited speaker, MADE, Edmonton.
- 2012. Co-chair and conference organizer, with Dr. Lukas Swan; workshop presenter. E-SIM scientific conference on energy modeling.
- 2011. Peter Behrens School of Architecture, Düsseldorf, Germany.
- 2011. "Education for Sustainability in a First Nations Context." US Green Building Council conference, Toronto.
- 2011. "Designing for Health and Sustainability in Botswana." University of Manitoba.
- 2011. Speaker and panelist. Ghost 13: Ideas in Things conference, Kingsburg, NS.

Interviews

- 2011. "Radio Alex" FM radio, Alexandra Township, South Africa.
- 2011. Botswana Television.

Recent Service (University, Academic, Professional, and Public)

- 2011-12. Visiting Professor, Peter Behrens School of Architecture, Düsseldorf, Germany
- 2010–2012. Acting Director, School of Architecture, Dalhousie University.
- 2009–2010. Design and Innovation Committee, Sexton Campus, Dalhousie University.
- 2008–2010. Member, Dalhousie University Senate.

Recent Honours and Awards

- 2012. Alvar Aalto International Symposium, Helsinki – invited speaker
- 2010. International Building of the Year Award for 2010, Chicago Athenaeum Museum of Architecture & The European Centre for Architecture, Art Design and Urban Studies

Professional Memberships and Qualifications

Architects Registration Board of the United Kingdom: registered architect

Brian Lilley
Associate Professor

Faculty Member (100%)

Courses Taught in 2013–14		Term
ARCH 3001.06	Design (B1)	fall
ARCH 4003.03	Design (B3)	summer
ARCH 4004.03	Free Lab (B3)	summer
ARCH 4211.03	Building Systems Integration (B3)	summer
ARCH 5308.03	Co-op Work Term	fall
ARCH 9008.06	MArch Thesis	winter

Teaching

Associate Professor	Dalhousie University	2003–present
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Education

AA Diploma, RIBA Part II	Architectural Association	1988
BES	University of Manitoba	1983

Current Research / Practice Areas

Ecological and programmatic strategies in architecture; garden/built projects advocating community health and well-being; facade design; ceramic materials; interactive environments with computational representation of climate and circulation.

Recent Scholarship (Research and Creative Activity)

Design Practice

2009–present. Brian Lilley DesignNA Inc.: director

2004–2009. Piskwepaq Design Inc. (with Richard Kroeker and Roger Mullin): partner

Publications

Conference Papers

2014. "Next Generation Green Buildings" (with Trevor Butler). NSERC conference, Vancouver.

2012. "Ceramic Perspiration." ACADIA conference, San Francisco; Canadian Green Building Council conference.

2012. "Porosity in Ceramics." Smart Geometry conference.

Lectures and Presentations

2013. "Notes from the Desire Path: A Psycho-Geographic Study and Locative Media Event." Montreal Hippodrome.

2013. "Tracing the City." Khyber Centre for the Arts, Halifax.

2011. Pecha Kucha presentation, Halifax.

Exhibitions and Installations

2013. Installation 3: Art Fence. North End Community Garden, Warrington Park, Halifax.

2012. "Ceramic Perspiration." Smart Geometry conference, Troy, NY.

2012. Atlantic co-ordinator, Migrating Landscapes regional competition and exhibition (Canadian entry for Venice Biennale).

2011. Installations 1+2: Raised Gardens and Outdoor Kitchen. North End Community Garden, Warrington Park, Halifax.

2011. Cybergardens workshop, Smart Geometry conference, Copenhagen.

2010. Green wall study and workshop, Centre for Information Technology and Architecture, Copenhagen.

2009. Shelter workshop, with Sarah Bonnemaïson. Project with 25 local students in The Gambia.

Work in Publications by Others

2013. Nickl Weller, Christine, and Hans Nickl. *Hospital Architecture*. Berlin: Braun.

2009. Jencks, Charles, and Edwin Heathcote. *The Architecture of Hope*. London: Thames and Hudson.

2009. La Giorgia, Giancarlo. "Pictou Landing Health Centre." *Architecture Week*.

Recent Honours and Awards

2010. International Architectural Award, Chicago Athenaeum.

2009. Shortlisted for WAN Healthcare Building Award.

Professional Memberships and Qualifications

Canada Design Research Network: founding member

Brian MacKay-Lyons
Professor

Faculty Member (50%)
Registered Architect (Canada and United States)

Courses Taught in 2013–14		Term
ARCH 3002.06	Design (B2)	winter
ARCH 5211.03	Construction Detail	fall
Teaching		
Professor	Dalhousie University	1997–present
Associate Professor	Technical University of Nova Scotia	1989–1997
Assistant Professor	Technical University of Nova Scotia	1983–1989
Visiting Faculty Studio	Harvard University GSD	1996
Education		
MArch (Urban Design)	University of California at Los Angeles	1982
BArch	Technical University of Nova Scotia	1978
BEDS	Technical University of Nova Scotia	1976

Current Research / Practice Areas

Private practice design work in private homes, urban design, public buildings, and artificial intelligence software design.

Recent Scholarship (Research and Creative Activity)

Design Practice

2005–present. MacKay-Lyons Sweetapple Architects: principal

Publications

Books

In preparation. MacKay-Lyons, Brian. *Local Architecture: Building Place, Craft and Community*. Ed. Robert McCarter. Princeton Architectural Press.

In preparation. MacKay-Lyons, Brian, Juhani Pallasmaa, Rick Joy, Marlon Blackwell, Wendell Burnette, Tom Kundig, and Francis Kéré. *Talking Timbuktu*.

Work in Books by Others

In preparation. McCarter, Robert. *Work of MacKay-Lyons Sweetapple Architects*.

2014. Welton, Mike. *Drawing from Practice: Architects and the Meaning of Freehand*. Routledge.

2012. Friedman, Avi. *Fundamentals of Sustainable Dwellings*. Island Press.

2012. Friedman, Avi, and Ian MacBurnie. *Terraced and Row Housing*. Routledge.

2012. Pressman, Andrew. *Designing Architecture the Elements of the Process*. Routledge.

2012. Moskow, Keith, and Robert Linn. *Contemporary Follies*. Monacelli.

2012. Clark, Roger H, and Michael Pause. *Precedents in Architecture: Analytic Diagrams, Formative Ideas, and Partis*, 4th ed. Wiley.

2011. Graffin, Emmanuelle. *Maisons des Bords de Mer*. Éditions Glénat.

2011. Keaton, Diane. *House on the Landscape*. Rizzoli.

2010. Hart, Patricia. *Contemporary Villas: Dialoguing with Nature*. Schiffer.

2010. Fernandez-Galiano, Luis. *Atlas: Architectures of the 21st Century*. BBVA Foundation.

2010. Pauwels, Wim. *Archi-Nature*, vol. 2: *Exceptional Houses in Extraordinary Places*. Belgium: Beta Plus.

2010. Canadian Wood Design Council. *Celebrating Excellence in Wood Structures, 2009-10: North American Wood Design Award Winners*. Richmond Hill, ON: Dovetail Communications.

2010. Friedman, Avi. *Narrow Houses: New Directions in Efficient Design*. Princeton Architectural Press.

2010. Goodfellow, Philip, ed. *Guidebook to Contemporary Architecture in Toronto*. Toronto: D & M Adult Publishers.

2009. Sorge, Julian. *Arcadia*. Berlin: Die Gestalten Verlag.

2009. Decker, Julie. *Modern North*. Princeton Architectural Press.

2009. Hanlon, Don. *Compositions in Architecture*. Wiley.

Exhibitions

2013. Temple University, Philadelphia.

2013. Nocturne: Art at Night, Halifax.
 2013. Emerging Voices: The Architectural League.
 2012. RAIC Governor General's Medal for Architecture exhibition.
 2012. Honor Awards Exhibition, AIA National Convention, Washington, DC.
 2011. "The Making of Architecture," curated by Elke Krasny. School of Architecture, Dalhousie University.
 2010. "The Work of MacKay-Lyons Sweetapple," School of Architecture, Université Laval, Québec; Musée de Civilisation, Gatineau, QC; Middlebury College, Middlebury, VT.
 2010. Design competition for new cottages at Fallingwater. Carnegie Museum of Art, Pittsburgh; Université du Québec à Montréal.
 2010. Current North American Architecture. Zodchestvo 2010, Russian National Architecture Fair, Moscow.
 2009. Monopoli: In Study Model Wonderland from Halifax to Vancouver, Montreal.

Recent Service (University, Academic, Professional, and Public)

2010. Bruce Goff Chair, University of Oklahoma.
 2010. The Cameron Visiting Professor, Middlebury College, Middlebury, VT.
 1994–2010. Ghost International Architectural Laboratory: founder-director.

Recent Honours and Awards

2014. Royal Architectural Institute of Canada Firm Award.
 2013. Heritage Canada Cornerstone Award, Adaptive Reuse: for Troop Barn, Kingsburg, NS.
 2013. Lieutenant Governor's Medal of Excellence: for Lean-to House.
 2012. Governor General's Medal for Architecture: for Cliff House.
 2012. Lieutenant Governor's Award of Merit: for Sunset Rock.
 2012. Lieutenant Governor's Award of Merit: for Sliding House.
 2011. Canadian Architect Award of Excellence: for Two Hulls House.
 2011. Canada Council for the Arts Assistance for the Promotion of Architecture: for Ideas in Things: Ghost Sessions.
 2011. Lieutenant Governor's Medal of Excellence: for Two Hulls House.
 2011. Lieutenant Governor's Award of Merit: for Leahey II.
 2010. Lieutenant Governor's Medal of Excellence: for Martin-Lancaster House.
 2010. Lieutenant Governor's Award of Merit: for UPEI School of Business, Charlottetown, PEI
 2010. Lieutenant Governor's Citation: for Cliff House.
 2009. Lieutenant Governor's Medal of Excellence: for Bridge House.
 2009. Lieutenant Governor's Citation: for Ghost Campus.
 2009. Lieutenant Governor's Citation: for House on the Nova Scotia Coast #22 Spa.
 2009. Lieutenant Governor's Citation: for Nova Scotia College of Art and Design Port Campus.
 2009. Lieutenant Governor's Citation: for Canadian Chancery and Official Residence, Dhaka, Bangladesh.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect
 American Institute of Architects: honorary fellow
 Ordre des architectes du Québec (OAQ)
 Royal Architectural Institute of Canada: fellow
 Royal Canadian Academy of Arts

Christine Macy

Professor

Dean, Faculty of Architecture and Planning

Faculty Member (100%)
Registered Architect (United States)

Courses Taught in 2013–14		Term
ARCH 3001.06	Design (B1)	fall
ARCH 3105.03	History and Theory of Arch. - 20th Century	winter
ARCH 9008.06	MArch Thesis	winter
Teaching		
Dean, Faculty of Arch. & Plan.	Dalhousie University	2008–present
Professor	Dalhousie University	2003–present
Associate Professor	Dalhousie University	1998–2003
Assistant Professor	Technical Univ. of Nova Scotia/Dalhousie Univ.	1993–1998
Sessional Lecturer	University of British Columbia	1990–1993
Sessional Lecturer	University of California at Berkeley	1989–1990
Education		
MArch	Massachusetts Institute of Technology	1985
BA (Arch)	University of California at Berkeley	1981

Current Research / Practice Areas

History, theory and criticism of modern architecture, representation of cultural identity in architecture, urban systems and infrastructure, temporary urbanism, lightweight and ephemeral architecture.

Recent Scholarship (Research and Creative Activity)**Design Practice**

1986–present. Filum (with Sarah Bonnemaïson): principal

2010. Commonwealth Pavilion for Druk Padme School, Shey, Ladakh, India (with BASIC Initiative). Exhibited at Design Week and Earth Awards, Pall Mall, London.

2010. Urban design consultant and university liaison for Halifax Public Library (with Fowler Bauld and Mitchell with Schmitt Hammer Lassen Architects).

2010. Black Loyalist Heritage Centre, Birchtown, NS (with Peter Henry Architects).

2009. Outdoor tensile classroom for Druk Padme School, Shey, Ladakh, India (with BASIC Initiative).

2009. Bamboo Pavilion, Sansia, Taiwan.

Publications**Book**

2010. Macy, C. *Dams*. New York: W.W. Norton.

Book Chapters

2013. Macy, C. "The Political Street Theatre of Basel's Fasnacht as an Agent of Social Change." In *Architecture as a Performing Art*, ed. M. Feuerstein and G. Read, 147–61. London: Ashgate.

2011. Macy, C., and S. Bonnemaïson. "The Concept of Flow in Regional Planning: Benton MacKaye's Contribution to the Tennessee Valley Authority." In M. Hvattum, J.K. Larsen, B. Brenna, and B. Elvebakk, *Routes, Roads and Landscapes*, 139–49. London: Ashgate.

2010. Macy, C., and S. Bonnemaïson. "Flows as Agents of Transformation: Benton MacKaye und die Tennessee Valley Authority." In *Landschaftlichkeit: Zwischen Kunst, Architektur und Theorie*, ed. I. Nierhaus, J. Hoenes, and A. Urban, 241–51. Berlin: Dietrich Reimer.

Articles and Reviews

2012. Macy, C., "Currency: Recent Work of Ron Hayes" (catalogue essay), Gladstone Hotel, Toronto.

2012. Macy, C., book review of Peder Anker, *From Bauhaus to Ecohouse: A History of Ecological Design* (Louisiana State University Press, 2010), *Nordic Journal of Architecture*.

2011. Macy, C. "Architecture and Performance" (catalogue essay), in S. Bonnemaïson, *@Lab Architextile Laboratory: Electronic Textiles in Architecture*, 65–8. Halifax: Tuns Press.

2009. Bonnemaïson, S., and C. Macy. "Pérennité, événement et temporalités." *L'architecture et l'événement; Cahiers thématiques* 8: 119–25.

Lectures

- 2013, 2014. "Traditional Moroccan Architecture in the Anti Atlas: Agricultural and Pastoral Settlement Patterns and their Associated Building Types." Dalhousie University; University of San Diego.
2011. "From Mining to Hydropower in the American West." University of Waterloo; University of San Diego.
- 2008, 2009. "Flows as Agents of Transformation: From Wastelands to Wonderlands." Canadian Centre for Architecture; Oslo School of Architecture, Hamar, Norway; University of Bremen, Germany.

Panels and Interviews

2011. Moderator for Ghost 13 conference: Ideas in Things, Shobac, NS.
2011. Interviewed for *American Experience* television series, PBS, episode on the Grand Coulee Dam.
2011. Interviewed for *Artisans du Changement* television series, Radio Canada television. Director C. Ferrand. Episode on Sarah Bonnemaïson and her design work.

Exhibition

- 2009–2011. Installations by Architects, curated by S. Bonnemaïson and R. Eisenbach (touring exhibition): Dalhousie University; University of Texas at Austin; Université Laval; Parsons School of Design; University of Oregon; Haus der Architektur, Graz, Austria; AHO, Oslo; Cambridge Galleries, Ontario.

Recent Service (University, Academic, Professional, and Public)

2014. Architecture program review, University of San Diego.
2013. Provostal review, Daniels Faculty of Architecture, Landscape and Design, University of Toronto
2013. Academic program review, MArch program, University of Waterloo.
2010. Advisory Board, Oslo Centre for Critical Architectural Studies, Oslo School of Architecture and Design.
- 2010–present. Executive board, Dalhousie Architectural Press (formerly Tuns Press).
2009. Review committee, Dean of Engineering.
- 2008–present. Dean, Faculty of Architecture and Planning, Dalhousie University; Dean's Council, Dean's Research Advisory Council, Dean's Council of the College of Sustainability, Academic Senate, Sexton Campus Space Planning Committee, President's Advisory Council on Sustainability, Dean's Council of the Institute for Research in Materials, Academic Senate.
- 2004–present. External publication referee for Routledge (London) in digital design, architectural history and theory.
- 1999–present. External referee for tenure and promotion reviews: Dalhousie University; Columbia University; Florida Atlantic University; Pratt Institute; Ryerson University; University of British Columbia; University of Calgary; University of California, Berkeley; University of Michigan; University of Minnesota; University of Oregon; University of San Diego; University of Toronto; University of Waterloo; Virginia Tech.
- 1995–present. Regional correspondent, *Canadian Architect*.

Juries

2014. Lieutenant Governor's Awards, Nova Scotia Association of Architects.
2013. Peer evaluator, Insight Grants Program, SSHRC.
2012. HRM Public Art Program, Central Library, Halifax.
2012. Woodworks! Prairie Wood Design Awards, Edmonton.
2009. 20+ Change Awards, Toronto.

Recent Honours and Awards

- 2011–2014. SSHRC research/creation grant in fine arts: for E-motion Studies in the Age of Electronic Environments. \$230,000. Principal investigator: S. Bonnemaïson. Research collaborators: C. Macy, R. Muller, M.E. McLean, and A. Macy.
- 2007–2010. Atlantic Innovation Fund research and development grant: for Electronic Applications of Architectural Textiles, \$1,400,000 Co-investigators: S. Bonnemaïson and R. Muller. Research collaborators: C. Macy, P. Gregson, and A. Kalamkarov.

Professional Memberships and Qualifications

AIA, Washington State: registered architect
NCARB certification

Steven Mannell
Professor

Faculty member (0%; on secondment to College of Sustainability)
Registered architect (Canada)

Courses Taught in 2013–14

(none in the School of Architecture)

Teaching

Director, College of Sustainability	Dalhousie University	2008–present
Professor	Dalhousie University	2006–present
Director, School of Architecture	Dalhousie University	2002–2005
Associate Professor	Dalhousie University	2000–2006
Assistant Professor	Dalhousie University	1997–2000
Adjunct Asst. Professor/Lecturer	University of Waterloo	1989–1997

Education

BArch	University of Waterloo	1986
BES	University of Waterloo	1983

Current Research / Practice Areas

Building construction, professional practice; the architecture of public works, post-war modern architecture, contemporary architectural criticism.

Recent Scholarship (Research and Creative Activity)

Design Practice

1995–present. Steven Mannell Architect: principal.

2012. Fox Island bunkhouse, Mill Village, NS.

2010. Theriault cottage, Linden, NS.

Publications

Books

2013. Guest editor of *Journal of the Society for the Study of Architecture in Canada* 39, no. 2: "Modern Languages."

2011. Guest co-editor (with Peter Coffman) of *Journal of the Society for the Study of Architecture in Canada* 36, no. 2: "2010 Lunenburg Conference."

Book Chapters

2014. Mannell, Steven. "Expliquer les bâtiments modernes à un public vivant." In *La sauvegarde de l'architecture moderne*, ed. France Vanlaethem and Marie-Josée Therrien. Québec: Les Presses de l'Université du Québec.

2013. Mannell, Steven, Katja Brundiers, Emma Savage, Daniel Lang, and Arnim Wiek. "Educating Sustainability Change Agents by Design: Appraisals of the Transformative Role of Higher Education." In *Sustainability Assessment in Higher Education: Challenges, Approaches*. Tokyo: UN University.

Articles

2012. Mannell, Steven. "From Indifferent Shell to Total Environment: The Design Evolution of Toronto's Victoria Park Water Works, 1913–1936." *Journal of the Society for the Study of Architecture in Canada* 38, no. 1.

2011. Mannell, Steven. "The Dream (and Lie) of Progress: Modern Heritage, Regionalism, and Folk Traditions in Atlantic Canada." *Journal of the Society for the Study of Architecture in Canada* 36, no. 1.

Lectures

2014. "Engaged Learning, Change Leadership, and Our Sustainable Future." Keynote lecture at German Universities Service Learning Network, CAU Kiel University, Kiel, Germany.

2014. "Sustainability and the Built Environment." Azrieli School of Architecture, Carleton University.

2014. "Lunenburg: A Model Town on the Atlantic Coast." School for Studies in Arts and Culture, Carleton University.

2011. "What is Sustainability? A Built Environment Perspective." Keynote lecture for Architecture Week, Architects' Association of Prince Edward Island, Charlottetown, PE.

2011. "Creating the College of Sustainability." Thompson Rivers University, Kamloops, BC.

2011. "What is Sustainability?" Halifax Country Dental Association Continuing Professional Education program.
2009. "Making Change Happen: The College of Sustainability." Canadian Association of University Business Officers, Toronto.
2009. "Making Change Happen: The College of Sustainability." Faculty of Dentistry, Dalhousie University.

Conference Papers

2013. "Five Years of an Integrated Approach to Campus Sustainability." Association for the Advancement of Sustainability in Higher Education conference, Nashville, TN.
2012. "Architectural and Design History Teaching and Social Change Practice." Society for the Study of Architecture in Canada conference, University of Alberta, Edmonton.
2012. "Educating Sustainability Change Agents by Design" (with K. Brundiers, D. Lang, and E. Savage); "Transformative Undergraduate Sustainability Education." Association for the Advancement of Sustainability in Higher Education conference, Los Angeles.
2012. "Transforming Higher Education Towards Sustainability." Keynote lecture at the joint Dalhousie University / CAU Kiel University workshops, Kiel, Germany.
2012. "Dalhousie's Major in Environment, Sustainability and Society." International Conference on Sustainability Science, Arizona State University, Tempe, AZ.
2011. "From Indifferent Shell, Through Seemly Décor, to Total Composition: The Design Evolution of the Toronto Water Works, 1913–1957." Society for the Study of Architecture in Canada conference, Arvida, QC.
2011. "Teaching Sustainability In/Through History." Panel respondent, American Society for Environmental History conference, Phoenix, AZ.
2009. "Grappling with Evidence: Method as Subject." Society for the Study of Architecture in Canada conference, Toronto.
2009. "The College of Sustainability and the Environment, Sustainability and Society Major." UNESCO World Conference on Education for Sustainable Development, Bonn, Germany.

Recent Service (University, Academic, Professional, and Public)

- 2012–present. "Digital *Royal Architectural Institute of Canada Journal* Project" (with partners at Dalhousie University, Ryerson University, and Public Works and Government Services Canada); funding from RAIC and Canada Council.
- 2010–2011. Chair, Dorothy J. Killam Memorial Lectures committee, Dalhousie University.
- 2008–present. Executive member, President's Advisory Council on Sustainability.

Recent Honours and Awards

2013. Campus Case Study Award Winner, Large Research University category, Association for Advancement of Sustainability in Higher Education: for Dalhousie University College of Sustainability.
2010. Dalhousie University Educational Leadership Award (with David Black and Deborah Buszard): for College of Sustainability and ESS Major.
2009. "25 Good Practices in Education." UNESCO World Conference on Education for Sustainable Development, Bonn, Germany: for College of Sustainability.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect and councillor
 Royal Architectural Institute of Canada: fellow

Roger Mullin
Assistant Professor

Faculty Member (100%)

Courses Taught in 2013–14		Term
ARCH 3208.03	Building Technology (B2)	winter
ARCH 3502.03	Representation (B2)	winter
ARCH 5007.06	Landscape Studio	summer
ARCH 5212.03	From Principle to Detail	summer
ARCH 4004.03	Free Lab	summer
ARCH 9008.06	MArch Thesis	winter

Teaching

Assistant Professor	Dalhousie University	2003–present
Sessional instructor	Dalhousie University	1999, 2002 and 2003

Education

MArch (First Prof.)	Technical University of Nova Scotia	1998
BEDS	Technical University of Nova Scotia	1994
(Mechanical Engineering)	University of New Brunswick	1990–1992

Current Research / Practice Areas

Detailing and significance of materials; landscape and buildings in coastal environments; community partnerships; design-build; representation in documentation, design, and construction.

Recent Scholarship (Research and Creative Activity)

Design Practice

2006–2012. Roger Mullin Design: principal

2004–2009. Piskwepaq Design Inc. (with Richard Kroeker and Brian Lilley): partner

Publications

Article

2011. "The Uncertain Centre of the Mary Celeste." *MADE* (architectural journal, Cardiff, Wales).

Exhibitions

2013. "LineWork" (solo exhibition of drawings and sculpture). Sami Center for Contemporary Art, Karasjok, Norway.

2012. "Orthographic Views" (solo exhibition of drawings from the North Atlantic). Dalhousie University.

Lectures and Conference Paper

2013. "Delineated Forms." Dalhousie University.

2013. Lecture on residency work. Karasjok Art School, Finnmark, Norway.

2012. "Lines of Thought: 2010: Architectural Responses in the North Atlantic." North Atlantic Forum Conference, St. John's, NL.

2011. "Current Research in the North Atlantic." Dalhousie University.

2011. "Heart of Regional Development." St. John's, NL.

2010. Lecture and workshop, Norwegian University of Science and Technology.

2010. Lecture for Creative Thinking class with Dr. Daryll Whetter, Dalhousie University.

2009. Lecture and critic for Outport Furniture Workshop, Shorefast Foundation, Fogo Island, NL.

Recent Honours and Awards

2013. Ivar Jaks Artist-in-Residence, Karasjok, Norway.

2013. Invited to deliver drawing workshop by Public Awareness Committee of NLAA.

2013. Invited to participate in After The Flood workshop, Londonderry, VT.

2011. Invited by Eggen Arkitekter to teach 2-week drawing course in Split, Croatia.

2009. Selected for The Roadshow: Architectural Landscapes of Canada.

Elisa Navarro Morales

Assistant Professor

Faculty Member (100%)
(resigned in December 2013)

Courses Taught in 2013–14		Term
ARCH 3001.06	Design (B1)	fall
ARCH 5199.03	Humanities Seminar	fall
ARCH 5216.06	Building Systems Integration for Thesis	fall
ARCH 9007.06	MArch Thesis Preparation	fall
Teaching		
Assistant Professor	Dalhousie University	2011–2013
Adjunct	Dalhousie University	2010–2011
Education		
PhD	McGill University	2013
MArch (Post-prof.)	McGill University	2006
BArch	Universidad de los Andes	1999

Current Research / Practice Areas

History and theory of early modern architecture; relationships among architectural history, theory, and design.

Recent Scholarship (Research and Creative Activity)**Design Practice**

2012. Historian and modeling and scenario consultant, Urbanoscope 2, CALQ Research and Creation in Architecture Grant. Project director: Dominique Laroche.

Publications**Article**

2011. "The Astronomer's Palace." *Rupkatha Journal on Interdisciplinary Studies in Humanities* 3, no. 1.

Book Chapter

2011. "History as Storytelling in the Account of the Eleven Orders of Architecture According to Juan Caramuel De Lobkowitz." In *Chora: Intervals in the Philosophy of Architecture*, vol. 6, ed. Alberto Pérez-Gómez and Stephen Parcell, 143-58. Montreal: McGill-Queen's University Press.

Conference Papers

2013. "La arquitectura oblicua de Juan Caramuel, un enfoque casuístico." I Simposio Internacional de Jovenes Investigadores del Barroco, Universidad de Santiago de Compostela, Spain.

2013. "The Many Sides of Architecture." Society of Architectural Historians conference, Buffalo, NY.

2011. "Oblique Architecture: Bending the Laws of Architecture Rightfully." Institute for the Public Life of Arts and Ideas, McGill University.

2010. "The Astronomical Palace: Making Knowledge: Science, Art, and Instruments in Early Modern Europe." Situating Science project, McGill University.

2010. "Imaging an Oblique Architecture: Constructing Imagination, Word and Image and the 'Matter' of Architectural Scholarship." Virginia Tech, Alexandria, VA.

Recent Honours and Awards

2010–2011. Doctoral grant, Fonds Québécois de la recherche sur la société et la culture.

Stephen Parcell

Faculty Member (100%)

Professor

Undergraduate and Graduate Coordinator, School of Architecture

Courses Taught in 2013–14

		Term
ARCH 3104.03	Foundations in Architectural History and Theory	fall
ARCH 4502.03	Representation (B5)	winter
ARCH 9008.06	MArch Thesis	winter
ARCH 9009.00	MArch Thesis Continuation - coordinator	fall

Teaching

Professor	Dalhousie University	2010–present
Undergrad/Grad Coordinator	Dalhousie University	1997–present
Associate Professor	TUNS / Dalhousie University	1992–2010
Assistant Dean	Dalhousie University	2006–2008
Assistant Professor	Technical University of Nova Scotia	1987–1992
Assistant Professor	Carleton University	1984–1987

Education

PhD	McGill University	2007
MArch (post-prof.)	Cranbrook Academy of Art	1984
BArch	University of Toronto	1979

Current Research / Practice Areas

Historical definitions of architecture; interdisciplinary alliances with architecture; history and theory of architectural representation.

Recent Scholarship (Research and Creative Activity)**Publications****Books**

In preparation. Pérez-Gómez, Alberto, and Stephen Parcell, ed. *Chora: Intervals in the Philosophy of Architecture*, vol. 7. Montreal: McGill-Queen's University Press.

2012. *Four Historical Definitions of Architecture*. Montreal: McGill-Queen's University Press.

2011. Pérez-Gómez, Alberto, and Stephen Parcell, ed. *Chora: Intervals in the Philosophy of Architecture*, vol. 6. Montreal: McGill-Queen's University Press.

Book Chapter

In preparation. "An Architectural Creation Myth Borrowed from the Phenomenology of Music." In *Architecture's Appeals*, ed. Marc J. Neveu and Negin Djavaherian. London: Routledge.

Conference Paper

2010. "Interpretation Rather Than History." ACSA annual conference, New Orleans. Published in proceedings, 734–41.

Lectures

2014. "Four Historical Definitions of Architecture." McLennan Rare Books Library, McGill University.

2009. "Perspective and the World Around It." NSCAD University, Halifax.

Recent Service (University, Academic, Professional, and Public)

2014–present. Member, Senate Review Committee for relations between Dalhousie University and University of King's College.

2013–present. Member, Associate Deans Academic Council, Dalhousie University.

2013–2014. Member, Data Collection and Research Advisory Committee, ACSA.

2012. External reviewer for promotion application, Carleton University.

2012. Manuscript editor for Peter Olshavsky, "Questions Concerning Architectural Machines; or, Pataphysics in Early Modern Architecture," PhD dissertation, McGill University.

2011. External reviewer for University of Alberta Press.

2010. External reviewer for *Journal of Architectural Education*.

2010. External reviewer for promotion application, University of Manitoba.
2010. External reviewer for ACSA annual conference.
2009–2011. Member, Design and Innovation Steering Committee, Dalhousie University.
2009. External reviewer for SSHRC grant.
2009. External reviewer for tenure and promotion application, University of Florida.
2008–2014. Member, Faculty of Graduate Studies Council, Dalhousie University.

Recent Honours and Awards

2010. Grant from Canadian Federation for the Humanities and Social Sciences, Aid to Scholarly Publications Program, for *Four Historical Definitions of Architecture*.

Professional Memberships and Qualifications

Society of Architectural Historians: member

Austin Parsons
Assistant Professor

Faculty member (50%)

Courses Taught in 2013–14		Term
ARCH 5210.03	Life Cycle Analysis	fall
ARCH 5219.03	Technology of Heritage Conservation	fall
ARCH 5298.03	Technology Seminar: Sustainable	summer
ARCH 4004.03	Free Lab	summer
Teaching		
Assistant Professor	Dalhousie University	1997–present
Research Assistant Professor	Technical University of Nova Scotia	1993–1997
Education		
SMBT (MSc, bldg. tech.)	Massachusetts Institute of Technology	2004
MES	Dalhousie University	1998
BSc	McGill University	1981

Current Research / Practice Areas

Wood technology, wood lot management and the environmental impact of forest management practices, building performance of residential wood frame construction systems, timber frame systems.

Recent Scholarship (Research and Creative Activity)

Design Practice

2005–present. Parsons Lumber Company Limited: principal

2005–present. Hillbrook Woodworks Limited: principal

Publications

Article

2013. Parsons, A. "A Convenient Disconnect - When Heritage Matters." *The Griffin: Quarterly Publication of Heritage Trust of Nova Scotia* 38, no. 3 (September).

Conference Papers

In preparation. Parsons, A. "The Beauty of a True Divided Light Window." Heritage and Landscape as Human Values. ICOMOS General Assembly and Scientific Symposium, Florence, Italy.

2014. Parsons, A. "The Need to Link the Tangible with the Intangible: The Challenges of Infinite Design Life and Perpetual Maintenance." REHAB 2014: International Conference on Preservation, Maintenance and Rehabilitation of Historic Buildings and Structures, Tomar, Portugal.

2013. Parsons, A. "Don't Repair, Replace: Nova Scotia's True Divided Lights." Sharing Cultures International Conference on Intangible Heritage, Aveiro, Portugal.

2012. Parsons, A. "The Inherent Disconnect Between Historic Wood Buildings and Nova Scotia's Energy Codes." Heritage 2012: International Conference on Heritage and Sustainable Development, Porto, Portugal.

2011. Parsons, A. "Should We Have a Timber Framer's Guild Carbon Market?" Timber Framer's Guild: Eastern Conference, Leesburg, VA.

2009. Parsons, A. "Timber Frames of Nova Scotia: A Review of Settlement Patterns and Associated Timber Frames." Traditional Timber Frame Research and Advisory Group Symposium, York, ME.

Lectures

2013. "To Be Authentic: Accuracy, Authenticity and Working Reality in Nova Scotia circa 2013." Dalhousie University.

2013. "Conserving Nova Scotia's Wood Window Heritage." RAIC Festival of Architecture, Halifax.

2012. "Teaching a New Dog an Old Trick: What Heritage Conservation Can Show Green Building." Dalhousie University.

2012. "Research Review: Challenges and Opportunities in Heritage Building: A Window Maker's Perspective." Dalhousie University.

2011 President's Address: Nova Scotia Woodlot Owners and Operators Association Annual General Meeting, Great Village, NS.

2011. NSWOOA presentation to the All Members Committee on Resources, Nova Scotia Legislature.

2011. Strathlorne Nursery Round Table. Strathlorne, Cape Breton, NS
2010. President's Address: Nova Scotia Woodlot Owners and Operators Association Annual General Meeting, Old Barns, NS.
2009. "Why Pay More?" Sustainability Workshop, Biscuit Eater Café, Mahone Bay, NS.

Exhibitions

2012, 2013. "Conservation Strategies" (exhibition of student work). Public Works Canada: Dominion Building, Halifax.

Recent Service (University, Academic, Professional, and Public)

2014. Scientific committee member, REHAB 2014: International Conference on Preservation, Maintenance and Rehabilitation of Historic Buildings and Structures, Tomar, Portugal.
2013. Session chair, Heritage 2012: International Conference on Heritage and Sustainable Development, Porto, Portugal.
2013. Session chair, International Conference on Intangible Heritage, Aveiro, Portugal.
2013. Trial reporter, North American Woodcock Championship, Nackawic, NB.
2012. Trial reporter, International Amateur Woodcock Championship, Debec, NB.
2012. Trial reporter, Maritime Open Grouse Classic, McAdam, NB.
2012–2013. Futurity chairman, North American Woodcock Futurity.
2012. Life member, Maritime Bird Dog Club.
2011. Field Trial Secretary, Nova Scotia Point Dog Club.
2010. Field Trial Chairman, Nova Scotia Pointing Dog Club.
2004–2009. Field Trial Secretary, Nova Scotia Pointing Dog Club.

Niall Savage
Associate Professor

Faculty member (75%)
Registered architect (Canada)

Courses Taught in 2013–14		Term
ARCH 3001.06	Design (B1)	fall
ARCH 3002.06	Design (B2)	winter
ARCH 5216.06	Building Systems Integration for Thesis	fall
ARCH 9007.06	MArch Thesis Preparation	fall
ARCH 9008.06	MArch Thesis	winter

Teaching		
Associate Professor	Dalhousie University	2008–present
Assistant Professor	Dalhousie University	1997–2008
Sessional Instructor	Technical University of Nova Scotia	1994–1997

Education		
MArch (First Prof.)	Technical University of Nova Scotia	1989
BEDS	Technical University of Nova Scotia	1987
BA (English)	University of Alberta	1984

Current Research / Practice Areas

Private practice design work in residential buildings, public buildings, and affordable housing developments; architectural visualization and its graphic applications; building case studies.

Recent Scholarship (Research and Creative Activity)

Design Practice

2001–present. Niall Savage Architecture: principal

Publications

Work in Publications by Others

2009. Galvin, Terrance. "Eastern Promises: On the Work of the Creighton/Gerrish Development Association." *Canadian Architect*. July.

Recent Service (University, Academic, Professional, and Public)

Society for the Rehabilitation of Addicted Persons: Board of Directors

Recent Honours and Awards

2009. Nova Scotia Association of Architects Lieutenant Governor's Award: Citation for Harbour City Affordable Housing, Halifax.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect

Talbot Sweetapple

Assistant Professor of Practice

Faculty member (33%)

Registered architect (Canada and United States)

Courses Taught in 2013–14		Term
ARCH 4005.06	Design (B5)	winter
ARCH 5010.06	Public Architecture Studio (M1)	summer
ARCH 9008.06	MArch Thesis	winter
Teaching		
Assistant Professor of Practice	Dalhousie University	2013–present
Sessional instructor	Dalhousie University	1997–2013
Education		
MArch (First Prof.)	Technical University of Nova Scotia	1997
BEDS	Technical University of Nova Scotia	1995
BA	Dalhousie University	1992

Current Research / Practice Areas

Design practice in cultural, post-secondary educational, and agricultural buildings; research in school buildings, comprehensive design, public architecture, and material culture.

Recent Scholarship (Research and Creative Activity)**Design Practice**

2005–present. MacKay-Lyons Sweetapple Architects: principal

Publications**Work in Books by Others**

In preparation. MacKay-Lyons, Brian. *Local Architecture: Building Place, Craft and Community*. Ed. Robert McCarter. Princeton Architectural Press.

In preparation. McCarter, Robert. *Work of MacKay-Lyons Sweetapple Architects*.

In preparation. Moskow, Keith, and Jeff Linn. *Rural Interventions*.

2014. Welton, Mike. *Drawing from Practice: Architects and the Meaning of Freehand*. Routledge.

2012. Friedman, Avi. *Fundamentals of Sustainable Dwellings*. Island Press.

2012. Pressman, Andrew. *Designing Architecture the Elements of the Process*. Routledge.

2012. Moskow, Keith, and Robert Linn. *Contemporary Follies*. Monacelli.

2012. Clark, Roger H, and Michael Pause. *Precedents in Architecture: Analytic Diagrams, Formative Ideas, and Partis*, 4th ed. Wiley.

2011. Graffin, Emmanuelle. *Maisons des Bords de Mer*. Éditions Glénat.

2011. Keaton, Diane. *House on the Landscape*. Rizzoli.

2010. Fernandez-Galiano, Luis. *Atlas: Architectures of the 21st Century*. BBVA Foundation.

2010. Friedman, Avi, and Ian MacBurnie. *Terraced and Row Housing*. Routledge.

2010. Hart, Patricia. *Contemporary Villas: Dialoguing with Nature*. Schiffer.

2010. Pauwels, Wim. *Archi-Nature*, vol. 2: *Exceptional Houses in Extraordinary Places*. Beta Plus.

2010. Canadian Wood Design Council. *Celebrating Excellence in Wood Structures*. Dovetail.

2010. Friedman, Avi. *Narrow Houses: New Directions in Efficient Design*. Princeton Architectural Press.

2010. Goodfellow, Philip, ed. *Guidebook to Contemporary Architecture in Toronto*. Toronto: D & M Adult Publishers.

2009. Sorge, Julian. *Arcadia*. Berlin: Die Gestalten Verlag.

2009. Decker, Julie. *Modern North*. Princeton Architectural Press.

2009. Hanlon, Don. *Compositions in Architecture*. Wiley.

Work in Articles by Others

2009–2014. 44 articles in print journals and newspapers published in Canada, Italy, New Zealand, Russia, Spain, United Kingdom, and United States.

Exhibitions

2013. Voices of Design: 25 Years of Architalx, Portland Museum of Art and Architalx, Portland, ME.

2013. Emerging Voices: The Architectural League.

2012. RAIC Governor General's Medal for Architecture exhibition.

2012. Honor Awards Exhibition, AIA National Convention, Washington, DC.
 2011. "The Making of Architecture," curated by Elke Krasny. School of Architecture, Dalhousie University.
 2010. "The Work of MacKay-Lyons Sweetapple," School of Architecture, Université Laval, Québec; Musée de Civilisation, Gatineau, QC; Middlebury College, Middlebury, VT.
 2010. Current North American Architecture. Russian National Architecture Fair, Moscow.
 2010. Design competition for new cottages at Fallingwater. Carnegie Museum of Art, Pittsburgh; Université du Québec à Montréal.
 2009. Monopoli: In Study Model Wonderland from Halifax to Vancouver, Montreal.

Lectures

2012. Toronto Wood Solutions.
 2010. "Current Work of MacKay-Lyons Sweetapple Architects." University of Strathclyde, Glasgow.
 2009. Building Biographies Symposium, The Lighthouse Trust, Glasgow, Scotland.
 2009. "The Future of Library Design." Mount Saint Vincent University, Halifax.
 2009. "Critical Regionalism: Blending Local Traditions with Modern Architecture." Halifax Public Library.

Recent Service (University, Academic, Professional, and Public)

2011. Jury member for Twenty + Change curatorial committee, Toronto.
 2010, 2014. External examiner, University of Strathclyde, Glasgow, Scotland.

Recent Honours and Awards

2014. Royal Architectural Institute of Canada Firm Award.
 2014. Architizer Awards, People's Choice Award: for Two Hulls House.
 2013. Heritage Canada Cornerstone Award, Adaptive Reuse: for Troop Barn, Kingsburg, NS.
 2013. Residential Architect Design Award, Merit Award: for Sliding House.
 2013. Lieutenant Governor's Medal of Excellence: for Lean-to House.
 2012. AZ People's Choice Design Award, Azure, for Two Hulls House.
 2012. Lieutenant Governor's Award of Merit: for Sunset Rock.
 2012. Lieutenant Governor's Award of Merit: for Sliding House.
 2012. Lieutenant Governor's Medal of Excellence: for UPEI School of Nursing, Charlottetown, PEI.
 2012. Governor General's Medal for Architecture: for Cliff House.
 2011. Canadian Architect Award of Excellence: for Two Hulls House.
 2011. Record House Award, Architectural Record: for Two Hulls House.
 2011. American Institute of Architects Honor Award: for Ghost Campus, Upper Kingsburg, NS.
 2011. North American Wood Design Ron Thom Award: for Ghost Campus, Upper Kingsburg, NS.
 2011. North American Wood Design Honor Award: for Cliff House.
 2011. North American Wood Design Design Citation: for Two Hulls House.
 2011. Canada Council for the Arts, Promotion of Architecture: for Ideas in Things: Ghost Sessions.
 2011. Lieutenant Governor's Medal of Excellence: for Two Hulls House.
 2011. Lieutenant Governor's Award of Merit: for Leahey II.
 2010. Lieutenant Governor's Medal of Excellence: for Martin-Lancaster House.
 2010. Lieutenant Governor's Award of Merit: for UPEI School of Business, Charlottetown, PEI.
 2010. Lieutenant Governor's Citation: for Cliff House.
 2009. North American Wood Design Award, Citation: for Hill House.
 2009. Lieutenant Governor's Medal of Excellence: for Bridge House.
 2009. Lieutenant Governor's Citation: for Ghost Campus.
 2009. Lieutenant Governor's Citation: for House on the Nova Scotia Coast #22 Spa.
 2009. Lieutenant Governor's Citation: for Nova Scotia College of Art and Design Port Campus.
 2009. Lieutenant Governor's Citation: for Canadian Chancery & Official Residence, Dhaka, Bangladesh.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect
 American Institute of Architects
 Architects Association of New Brunswick
 Board of Architects, State of New Hampshire
 Royal Architectural Institute of Canada

Catherine Venart
Assistant Professor

Faculty member (100%)
Registered architect (Germany)

Courses Taught in 2013–14		Term
ARCH 4005.06	Design (B5)	winter
ARCH 5002.06	Urban Housing Studio	fall
ARCH 5216.06	Building Systems Integration for Thesis	fall
ARCH 6510.03	Arch'l Documentation and Analysis	fall
ARCH 9007.06	MArch Thesis Preparation	fall
ARCH 9008.06	MArch Thesis	winter

Teaching		
Assistant Professor	Dalhousie University	2002–present
Visiting professor	Düsseldorf Kunstacademie, Germany	2002
Visiting professor	Dessau-Bauhaus, Germany	2001–2002
Assistant Professor	University of Houston	1999–2000
Lecturer	University of Kansas	1997–1999

Education		
MArch	Southern California Institute of Architecture	1994
BFA	University of Toronto	1987
Cert. Eng.	Mount Allison University	1984

Current Research / Practice Areas

Experiential, spatial, and phenomenological methods of documenting, representing and analyzing site, architecture, urban and natural environments; private design practice; multi-disciplinary design strategies for urban and architectural competitions and projects; publication and exhibition design.

Recent Scholarship (Research and Creative Activity)

Design Practice

2002–present: international idea pool for architecture & urban design: principal

2002–present: Molestina Architekten: associate-partner

Competition Entries and Buildings

2013. Dalhousie University section of Arctic Adaptions competition for Venice Biennale (with Kevin Lo, Kale Harper, Beth MacLeod, and Holly Simon). Honourable mention.

2013. New Rochelle / New York City Waterfront Development competition (with Julie Janeo, Holly Simon, and Kevin Lo). Third prize.

2011. Urban Design / Stadtraum competition. Bayerischer Bahnhof, Leipzig (with Molestina Architekten and Gruen Landschaftsarchitekten).

2010. Wildlife crossing competition, Colorado (with Alan Organschi, Alex Felson, Sobbeck, Maria Arquero, Jen Maigret).

2010. Competition for Canadian architecture exhibition at Venice Biennale.

2010. Housing, Koeln-Sulz (with Molestina Architekten). First prize.

2010. Opening Bahn Deckel Threisehohe, Munich.

2010. Second phase, Rurhe University master plan, Bochum, Germany (with Molestina Architekten and FSWLA Landschaftsarchitektur). First prize.

2009. Kö-Bogen urban design competition, Düsseldorf, Germany (with Molestina Architekten and FSWLA Landschaftsarchitektur). First prize.

2009. Housing competition, Gruener Weg, Cologne (with Molestina Architekten). First prize. Completed 2011.

Publications

Articles

2013. Venart, Catherine. "Langsamkeit/Slowness: Meditating on the Frame: Blind Spots and the Construction of Erotic Space in Andrei Tarkovsky's *Nostalgia*." *Framework: The Journal of Cinema and Media* 54, no. 1.

2013. Venart, Catherine. "Water Resources: A Documentation of Water Technologies in the San Pedro de Atacama Desert of Northern Chile." *ARID Journal*.
2012. Venart, Catherine, and Juan Pablo Molestina. "Appropriating Topography: Informal Ravines Quito." In *Hands-On Urbanism 1850–2012* (exhibition catalogue), ed. Elke Krasny, Architektenzentrum, Vienna.

Conference Papers

2014. Venart, Catherine. "Ecology as a Framework for a Design Methodology." ACSA conference, Seoul, South Korea.
2009. Venart, Catherine. "Spatial Practice: Experiential Documentation and Analysis as a Methodology." FieldWorks conference, Edinburgh.

Lectures and Workshops

2013. Urban design workshop (with Jacques Rousseau and Tali Dorsey), Canadian Centre for Architecture, Montreal.
2010. "Appropriating Topographies: Informal Ravine Settlements in Quito, Ecuador."
2010. Passmaquoddy site workshop, St. Andrews, NB (with Lee Stocasky).
2010. "Water Wars and Urban Morphology." Universidad Católica del Norte, San Pedro, Chile.
2009. "Informal Ecologies of Growth" (with Ana Maria Duran). Architectural Center, Quito, Ecuador.
2009. Ecological workshop, St. Andrews, NB.

Recent Honours and Awards

2014. Canada Council for the Arts, Travel grant for ACSA international conference, Seoul, South Korea.
2009. Canada Council for the Arts, Travel grant for lecture to Architectural Association of Ecuador, Quito.

Professional Memberships and Qualifications

Architektenkamm Nordrhein-Westfalen, Germany: registered architect
 Canadian Design Research Network: member
 Cradle to Cradle Initiatives, Nova Scotia Department of Economic Development: member
 Institute for Research in Materials, Dalhousie University: member
 Nova Scotia Education for Sustainable Development Working Group: member

Cristina Verissimo
Assistant Professor of Practice

Faculty member (33%)
Registered architect (Portugal)

Courses Taught in 2013–14		Term
ARCH 3001.06	Design (B1)	fall
ARCH 3002.06	Design (B2)	winter
ARCH 9008.06	MArch Thesis	winter

Teaching

Assistant Professor of Practice	Dalhousie University	2013–present
Adjunct	Dalhousie University	2012–2013
Teaching Assistant	Technical University of Lisbon	2004–2012

Education

(PhD in progress)	Technical University of Lisbon	
MArch II	Harvard University	2002
Dipl. Arch	Technical University of Lisbon	1988

Current Research / Practice Areas

Design practice in private and public buildings, urban design, and architectural tectonics; research in sustainable materials and eco-efficiency in building construction.

Recent Scholarship (Research and Creative Activity)

Design Practice

1999–present. CVDB Arquitectos: principal
 2013. Megalithic Museum, Mora, Portugal (construction 2014–2016).
 2012–2013. House, Santarém Historical Centre, Portugal (construction 2014–2015).
 2012. Master plan for the village of Caio Gembo, Cabinda, Angola (with Domus Concept and Tiago Santos).
 2010–2012. Swimming pool and aquatic centre, Caldas de Manteigas, Portugal.
 2010–2012. Luis António Verney Primary and High School (with Domus Concept and Tiago Santos).
 2010–2012. Braancamp Freire High School, Pontinha, Odivelas, Lisbon.
 2010–2011. Research project for the characterization and regeneration of the historic urban areas of Seixal e Arrentela (with Luisa Reis Paula).
 2010. Municipal Market of Algés.
 2010. Arraiolos Tapestry Museum, Arraiolos.
 2010. Transforma studios and headquarters, Torres Vedras (with Pedro Gadanho).
 2010–2013. 28 public competition entries for projects in Portugal, Poland, Slovenia, and Spain.

Publications

Work in Publications by Others

2010–2014. 27 articles on design projects by CVDB Arquitectos in print journals published in Brazil, Canada, China, France, Italy, Mexico, Netherlands, Portugal, Russia, South Korea, and Spain.
 2010–2014. 163 articles on design projects by CVDB Arquitectos in Internet publications.

Exhibitions

2010–2012. Five exhibitions of design competition projects, Portugal.

Lectures

2012. Debate panelist for Architectural Association Visiting School, Trienal de Arquitectura, Lisbon.
 2012. “Exemplos de Aplicação da Metodologia 'City Induction' para o Concelho de Óbidos: Exemplos de trabalhos de estudantes.” Conferência Oeste Evolui, Política de Solo: Novos Desafios para a Região Oeste,” Óbidos Municipality, Portugal.
 2010–2014. Five public lectures on cork research in Halifax and Portugal.
 2010–2011. Nine public lectures on office work by CVDB Arquitectos in Halifax and Portugal.

Recent Service (University, Academic, Professional, and Public)

2013. Jury member, Archiprix Portugal Awards.

2013. Jury member, Lieutenant Governor's Awards, Nova Scotia Association of Architects.
2010. Organizer and jury member, Architectural Foundation (London) and Portuguese Architectural Chambers.
2009–2010. Lecture co-curator, Young Portuguese Architects with International Awards, Lisbon.

Recent Honours and Awards

2014. Winner, ArchDaily Best Building of the Year (Education); for Bramcaamp Freire High School.
2013. Winner, World Architecture News Award (Education); for Bramcaamp Freire High School.
2013. First prize, Building Award, Amadora Municipal Architecture Awards, 2013; for Bramcaamp Freire High School.
2013. Odivelas Municipality Award for Architecture; for Braancamp Freire Secondary School.
2012. First prize, public competition for Museum of the Megalithic, Mora, Portugal.
2012. First prize, invited competition for Mirario School, Lisbon.
2010. First prize, public competition for Cascais High School, Cascais, Portugal.
2010. First prize, public competition for Arraiolos Tapestry Museum, Arraiolos, Portugal.
2009–2011. Other competition prizes: 3 second prizes, 2 honorable mentions.

Professional Memberships and Qualifications

Portuguese Architecture Chamber: registered architect

4.4.2 Adjuncts

Jennifer Esposito

Adjunct
Registered architect (Canada)

Course Taught in 2013–14		Term
ARCH 3002.06	Design (B2)	winter
Teaching		
Adjunct	Dalhousie University	2014
Education		
MArch II	Harvard University Graduate School of Design	2012
MArch	Carleton University School of Architecture	2007
BAS	Carleton University School of Architecture	2005

Recent Scholarship (Research and Creative Activity)

Design Practice

2013–present. MacKay-Lyons Sweetapple Architects: architect.
2011. William Rawn Associates Architects, Boston: intern architect.
2008–2010. Pin/Taylor Architects, Yellowknife, NT: intern architect.

Publications

Exhibitions

2012. Exhibition design team, "Cartographic Grounds," Harvard GSD, Cambridge, MA.
2012. Exhibitor, "A Line in the Andes," Quito, Ecuador.

Recent Honours and Awards

2010. Grant from J.B.C. Watkins Canada Council for the Arts.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect
Ontario Association of Architects: intern architect
Royal Architectural Institute of Canada: member

Course Taught in 2013–14		Term
ARCH 4003.03	Design (B3)	summer
Teaching		
Adjunct	Dalhousie University	2012–present
Education		
MArch	Dalhousie University	2005
BEDS	Dalhousie University	2003
BA (Arch. Studies)	University of Toronto	2001

Recent Scholarship (Research and Creative Activity)

Design Practice

2009–present. Omar Gandhi Architect: principal

2008–2009. MacKay-Lyons Sweetapple Architects: intern architect

Publications

Work in Publications by Others

2014. Bozikovic, Alex. "The Half-Open House." *The Globe and Mail*. February 20.

2013. Bozikovic, Alex. "Why a Sloped Roof Revival's Taking Shape." *The Globe and Mail*. October 30.

2013. *Phaidon Atlas of Contemporary World Architecture*. Selected for Moore Studio.

2013. Bozikovic, Alex. "This Summer's Hottest Cottages Blur the Line Between Inside and Out." May 25.

2013. Various Online Publications – Archdaily, Dezeen, Architizer, Mark

2013. Hansen, Ingrid. "Fancy Shanty." *Canadian Architect*.

2012. Leroux, John. "From the Ground Up." *Telegraph Journal*. October.

2012. Ware, Bev. "Serenity Follows Life's Joys, Sorrows." *The Chronicle Herald* (Halifax). August.

2012. Moses, Nalina. "Doing It By Hand." *Design Bureau Magazine*. March.

2011–2012. "Cedar House," "Shantih," "Moore Studio." *ArchDaily*.

2011. Rochon, Lisa. "In Nova Scotia a Man and a Woman Walk into a House..." *The Globe and Mail*. January.

2011. "Modern Living." *Canadian House and Home Magazine*.

2011. "Ask an Expert: Omar Gandhi." *The Coast: Home Style Guide*.

2011. Ware, Bev. "Different Views of Success." *The Chronicle Herald* (Halifax). January.

Recent Service (University, Academic, Professional, and Public)

2011–2012. Immigration Settlement and Integration Services: mentor.

2009–present. Big Brothers and Sisters of Greater Halifax: member.

Recent Honours and Awards

2014. Professional Prix de Rome in Architecture, Canada Council for the Arts.

2014. *Wallpaper Magazine*: Top 20 Young Architects Worldwide (Architects Directory).

2013. Lieutenant Governor's Award for Architecture; Citation for Black Gables.

2012. Lieutenant Governor's Award for Architecture: Citation for Shantih.

2012. Jury member, Canada Council for the Arts, Prix de Rome, Ron Thom Award, etc.

2012. Migrating Landscapes, Venice Biennale, Regional (Halifax).

2011. House of Assembly Recognition: Resolution no.1751.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect

<i>Courses Taught in 2013–14</i>		<i>Term</i>	
ARCH 5213.03	Facades	fall	summer

<i>Teaching</i>			
Adjunct	Dalhousie University	2000–present	

<i>Education</i>			
BArch	McGill University	1973	
BSc	McGill University	1970	

Recent Scholarship (Research and Creative Activity)

Design Practice

2005–present. Private consulting practice
 2011. Cabot Links Lodge, Inverness, NS.
 2010. Nova Scotia Medical Examiners Building, Dartmouth, NS.
 2009. Submarine Enclosure Building, Halifax, NS.
 2009. Kings County Academy, Kentville, NS

Course Taught in 2013–14		Term
ARCH 4003.03	Design (B3)	summer
Teaching		
Adjunct	Dalhousie University	1997–present
Adjunct	Technical University of Nova Scotia	1982–1997
Instructor	NSCAD University	2006–present
Education		
BArch	Technical University of Nova Scotia	1978
BEDS	Technical University of Nova Scotia	1976
	Ryerson Polytechnic Institute	1971–1973
	Queen's University	1968–1970

Recent Scholarship (Research and Creative Activity)**Design Practice**

1985–present. Peter Henry Architects: principal

Recent Service (University, Academic, Professional, and Public)

2013. Board member, Halifax Cycling Coalition.

2008–present. Member, Program Advisory Committee for Architectural Technology and Heritage Carpentry, Nova Scotia Community College.

2007–present. Member, Canada Green Building Council.

2006–present. Member, Ecology Action Centre.

2006–present. Member, Solar Nova Scotia.

2002–present. Member, Visual Arts Nova Scotia.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect

Course Taught in 2013–14		Term
ARCH 4003.03	Design (B3)	summer
Teaching		
Adjunct	Dalhousie University	2009–present
Education		
MArch	Dalhousie University	2006
BEDS	Dalhousie University	2004
MBA	Saint Mary's University	
BComm	Dalhousie University	1995

Recent Scholarship (Research and Creative Activity)

Design Practice

2010–present. Rayleen Hill Architecture + Design: principal

2005–2010. Niall Savage Architecture: intern architect

Publications

Work in Publications by Others

2012. "City of Edmonton, Park Pavilion Architectural Design Competition."

2012. "Deep Rock House" *Saltscapes*. Jan.

2011. "Back To The Future." *East Coast Living*. December.

2011. "Pavilions As Big As All Outdoors." *The Globe And Mail*. April 16.

2009. "Eastern Promises." *Canadian Architect*. July.

Recent Honours and Awards

2011. Edmonton Speed Skating Pavilion competition. First prize.

2011. Borden Park Pavilion competition, Edmonton. Shortlisted.

2011. Castle Downs Park Pavilion competition, Edmonton. Shortlisted.

2010. Lieutenant Governor's Award (with Niall Savage Architecture); for Harbour City Homes.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect, board member

Royal Architectural Institute of Canada: member

Courses Taught in 2013–14		Term
ARCH 3501.03	Representation (B1)	fall
ARCH 3502.03	Representation (B2)	winter
ARCH 4004.03	Free Lab	summer
ARCH 4501.03	Representation (B3)	summer
ARCH 6503.03	Photography in Architecture	fall
ARCH 6504.03	Montage in Architecture	winter

Teaching

Adjunct	Dalhousie University	2002–present
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Education

MEd	Mount Saint Vincent University	2010
BEDS	Technical University of Nova Scotia	1995
BSc (Physics & Math)	Dalhousie University	1992

Recent Scholarship (Research and Creative Activity)**Design Practice**

2001–present. Digital media and technical consultant, Cities and Environment Unit, Dalhousie University.

2000–present. Photographer, Dalhousie Theatre Productions.

1995–present. Dalhousie University, Faculty of Architecture and Planning: photographer.

1995–present. Private practice: photographer/digital media and technical consultant.

Publications**Exhibitions**

2011–2012. Faculty/sessional exhibition, School of Architecture.

2009–2010. Staff and Faculty Exhibition, Dalhousie Art Gallery.

Lectures

2009–2010. Visiting lecturer and critic, Nova Scotia College of Art and Design.

2009–2013. Visiting lecturer on digital photographic media, Halifax Public Library.

2008–present. "Photoethnography," "Colour and File Management," "History and Theories in Panoramic Photography," School of Architecture.

Recent Service (University, Academic, Professional, and Public)

2011. Jury member, photography competition, Engineering and Computer Science Co-op Education Department.

Recent Honours and Awards

2012. Rosemary Gill Award, for outstanding service to students, Dalhousie University.

<i>Courses Taught in 2013–14</i>		<i>Term</i>
ARCH 3501.03	Representation (B1)	fall
ARCH 4501.03	Representation (B3)	summer

<i>Teaching</i>		
Adjunct	Dalhousie University	1998–present

<i>Education</i>		
MArch	Technical University of Nova Scotia	1996
BEDS	Technical University of Nova Scotia	1994

Recent Scholarship (Research and Creative Activity)

Design Practice

Building Projects

2013. Blanchard/Tsaltas House renovation, Halifax.

2013. Conceptual design for AGOO Pediatric Clinic, Laval, QC.

2013. Proposed rooming house renovation, 629 McLaren, Ottawa.

2012. Sculpture platform for *Cradle* sculpture by John Greer, Thiel Collection, Gland, Switzerland.

2009. Renovation and addition, House for a Divorced Couple, Halifax, NS.

Public Art Competitions

2010. Traveler, Saint John Waterfront Public Art Competition, Saint John, NB. Second place.

2009. Public Space Competition, Trillium Building, Halifax (with C. Macy and C. Persaud), Fourth place.

Course Taught in 2013–14		Term
ARCH 5106.03	International Sustainable Development	summer
Teaching		
Adjunct	Dalhousie University	2013
Education		
MArch	University of California at Berkeley	1987
BA (Arch.)	University of California at Berkeley	1978
AA (Arch.)	Fullerton College	1976

Recent Scholarship (Research and Creative Activity)

Design Practice

2014–present. Housing Nova Scotia: manager of building design
2012–present. Knowledge and Development Associates: senior architect
2008–2012. WHW Architects / Genivar: senior architect

Recent Service (University, Academic, Professional, and Public)

2014–present. Chair, Design Review Committee, Halifax Regional Municipality.
2013. Member, Continuing Education Committee, RAIC Festival of Architecture.
2011–2012. Jury member, Lieutenant Governor's Awards, Nova Scotia Association of Architects.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect, council member, registration board committee
Jordan Engineers Association: licensed architect
American Institute of Architects: international associate
Canada Green Building Council: member
Institute of Management Consultants: member
LEED AP BD+C
Royal Architectural Institute of Canada: member

Course Taught in 2013–14		Term
ARCH 4110.03	Architectural History and Theory - 14th–18th Century	summer
Teaching		
Adjunct	Dalhousie University	2014
Instructor	Nova Scotia College of Art and Design	2014
Sessional Lecturer	University of Saskatchewan	2011–2013
Instructor	The King's University College	2009–2010
Instructor	University of Alberta	2002–2009
Instructor	Grant MacEwan University	2002–2009
Education		
MA (History of Art)	University of Victoria	2001
BA (English)	University of Alberta	1997

Recent Scholarship (Research and Creative Activity)

Publications

Conference Paper

2014. Wuetherick, B., and E. Loeffler. "Threshold Concepts and Decoding the Humanities: A Case Study of a Threshold Concept in Art History." National Academy for the Integration of Research, Teaching and Learning conference, Dublin, Ireland. Published in proceedings.

Article

2012. Loeffler, E., and B. Wuetherick. "Exploring Threshold Concepts: An Example of a Threshold Concept in Art History," *Bridges* 11, no. 1.

Recent Service (University, Academic, Professional, and Public)

2012–2013. Coordinator of Programs and Operations, Office of Vice-President Research, University of Saskatchewan

2010–2012. Faculty-in-residence, Residence Services, University of Saskatchewan.

2010. Session chair, Interdisciplinary Graduate Student Conference on Early Modern Europe, University of Alberta.

2009–2010. Curator, Visual Resources Centre, University of Alberta.

1998–2011. Unit clerk, Grey Nuns Hospital, Edmonton.

Course Taught in 2013–14		Term
ARCH 5216.06	Building Systems Integration for Design Thesis	fall
Teaching		
Adjunct	Dalhousie University	2010–present
Education		
MArch	Dalhousie University	2007
BEDS	Dalhousie University	2005
BEng	Memorial University	

Recent Scholarship (Research and Creative Activity)

Design Practice

2011–present: Fowler Bauld and Mitchell: architect.
 2011. Rayleen Hill Architecture + Design: intern architect.
 2010. Wolfville House addition, Nova Scotia: construction.
 2009. Design-build, Smithville House alterations, Newfoundland: construction.
 2007–2010. William Nycum and Associates: intern architect.

Recent Service (University, Academic, Professional, and Public)

2011. Intern representative, CACB accreditation team for University of Waterloo.
 2010. Intern representative, CACB accreditation team for University of Toronto.

Recent Honours and Awards

2011. Borden Park Pavilion competition, Edmonton (with Rayleen Hill Architecture + Design); shortlisted.
 2010. Outport Interiors Design Workshop. Shorefast Foundation.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect

Courses Taught in 2013–14		Term
ARCH 4303.01	Professional Practice (B3)	summer
ARCH 4304.01	Professional Practice (B5)	winter
ARCH 5311.03	Professional Practice (M6)	winter
ARCH 8892.03	Professional Practice (B4)	fall

Teaching		
Adjunct	Dalhousie University	2013–present

Education		
MArch	Technical University of Nova Scotia	1997
BEDS	Technical University of Nova Scotia	1995

Recent Scholarship (Research and Creative Activity)

Design Practice

2001–present. William Nycum & Associates: Vice-President, Business Development.

Publications

Lectures and Conference Papers

2014. "Mind Architecture: Utopian Parallels of Architecture and Psychiatry." R.O. Jones Memorial Lecture, Canadian Psychiatric Association conference.

2013. "44 Facilities, 1,533 Beds, 3 Years." International Union of Architects Public Health Group Forum, Toronto.

2012. "Infection Culture / Infected Culture." Canadian Healthcare Engineering Society conference, Maritime Chapter.

2011. Panel discussion: "Environments for Aging: Future of Senior Citizens in Nova Scotia."

Recent Service (University, Academic, Professional, and Public)

Director and treasurer, EGALE Canada.

2005–present. Design critic, Dalhousie University School of Architecture.

Recent Honours and Awards

2010. Christopher J. Coulter Young Alumnus Award, Dalhousie University.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect.

Dalhousie University Department of Psychiatry: associate in global psychiatry.

Project Management Professional Training and Certification.

Doug Pitcairn

Adjunct
Technician (part-time)

<i>Course Taught in 2013–14</i>		<i>Term</i>
ARCH 4211.03	Building Systems Integration (B3)	summer

Teaching

Adjunct	Dalhousie University	2002–present
Sessional instructor	Saint Mary's University	1990–present

Education

BSc (Physics)	Dalhousie University	1978
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Professional Memberships and Qualifications

Member of executive of Halifax Centre of the Royal Astronomical Society of Canada

<i>Courses Taught in 2013–14</i>		<i>Term</i>	
ARCH 5114.03	Theory of Conservation Practice	fall	summer
<i>Teaching</i>			
Adjunct	Dalhousie University	2013–present	
Instructor	Nova Scotia Community College	2008–present	
<i>Education</i>			
M.Div. (History)	Atlantic School of Theology	1995	
BA (History)	Dalhousie University	1989	

Recent Scholarship (Research and Creative Activity)

Design Practice

2007–present. Public educator on conservation for municipal authorities, individuals, and groups.

2007–2010. Standards and Guidelines Officer, Nova Scotia Historic Places Initiative, Department of Tourism, Culture, and Heritage, Government of Nova Scotia.

Lectures and Workshops

Association of Nova Scotia Museums: Member training for Museum Studies Program.

Athenaeum Society of Nova Scotia: Heritage value and international conventions.

Downtowns Atlantic Conference: Place making in development of historic downtowns.

Friends of the Public Gardens (Halifax): Conservation of cultural landscapes.

Heritage Foundation of Newfoundland and Labrador.

Heritage Trust of Nova Scotia.

Memorial University (Cultural Resource Management - Archaeology): Practice of Conservation.

NSCAD University: Annual guest lecture on Neo-classicism and Halifax architecture.

NS Directors of Planning Annual Conference: Environmental Sustainability and Built Heritage.

NS Municipal Heritage Officers Conference.

NS Municipal Heritage Advisory Committees.

St Mary's University (Cultural Resource Management - Anthropology): Practice of Conservation.

Professional Memberships and Qualifications

Built Heritage Technical Training, Parks Canada Agency.

Kevin Reid

Adjunct
Registered architect (Canada)

Course Taught in 2013–14		Term
ARCH 4211.03	Building Systems Integration (B3)	summer
Teaching		
Adjunct	Dalhousie University	2007–2010, 2014
Education		
MArch	Dalhousie University	2005
BEDS	Dalhousie University	2003
BA	Bishop's University	1996

Recent Scholarship (Research and Creative Activity)

Design Practice

2010–present. DSRA Architecture: associate.

Projects: LeMarchant Mixed Use Facility, Dalhousie University; Oval Pavilion, Halifax Common.

2005–2010. MacKay-Lyons Sweetapple Architects: associate.

Projects: NSCAD University Port Campus; Cliff House; Two Hulls House; Cosco Residence; New School of Business, University of Prince Edward Island.

Professional Memberships and Qualifications

Nova Scotia Association of Architects: registered architect

Courses Taught in 2013–14		Term
ARCH 5002.06	Urban Housing Studio (M2)	fall
ARCH 5102.03	Housing Theory	fall
ARCH 5103.03	Residential Real Estate Development	winter

Teaching

Professor Emeritus	Dalhousie University	2010–present
Dean, Faculty of Arch. & Plan.	Dalhousie University	2003–2008
Professor	Technical University of Nova Scotia/Dalhousie	1985–2010
Associate Professor	Technical University of Nova Scotia	1978–1985
Assistant Professor	Technical University of Nova Scotia	1973–1978
Sessional Lecturer	University of Guelph	1972–1973
Lecturer/Researcher	Ahmadu Bello University (Nigeria)	1965–1967

Education

MArch (post-prof.)	University of Toronto	1969
BArch	University of Toronto	1965

Current Research / Practice Areas

Human condition and the role of architecture in improving quality of life; especially the history, design and development of decent and affordable housing; housing policy as an instrument of social and economic development.

Recent Scholarship (Research and Creative Activity)

Design Practice

Creighton/Gerrish Development Association: president

Publications

Exhibitions

2009, 2010. Wanzel, J. Grant. "Inside and Outside the Lines" (exhibition of drawings of Grand Manan Island, Bay of Fundy, 2003–2009). Grand Manan Art Gallery, Grand Manan, NB; Faculty of Architecture and Planning, Dalhousie University.

Lectures

2013. Wanzel, J. Grant. "On Splitting Hairs and Counting Trees." Panel presentation, Interprofessional Education Session, Nova Scotia Hospital.

2012. Wanzel, J. Grant. "Housing Poverty: A Single Step From Homelessness." Panel presentation, Greater Moncton Homelessness Steering Committee conference, Moncton, NB.

2009. Wanzel, J. Grant. "The Right to Housing: What Does It Mean?" Annual meeting, Dalhousie Legal Aid Clinic, Halifax.

Book Chapter

2010. Wanzel, J. Grant. "The Criminalization of Poverty and the Impoverishment of Everything Else." In Diane Crocker and Val Marie Johnson, *Poverty, Regulation and Social Justice*. Halifax and Winnipeg: Fernwood Press.

Articles

2011. Wanzel, J. Grant. "Housing Nova Scotians: A Fresh Look" (with members of the Affordable Housing Association of Nova Scotia).

2009. Wanzel, J. Grant. "Gottingen Terrace Condominium: Bucking the Odds in the Race for City-Space." National Housing Week Broadsheet. Halifax: Community Action on Homelessness.

Work in Publications by Others

2010. Benjamin, Chris. "Rebuilding Halifax's Most Feared Neighbourhood, One Project at a Time." *The Globe and Mail*. September 24.

2009. Galvin, Terrance. "Eastern Promises: On the Work of the Creighton/Gerrish Development Association." *Canadian Architect*. July.

Recent Service (University, Academic, Professional, and Public)

Acting Chair, Affordable Housing Association of Nova Scotia.

2010. Jury member, CMHC Housing Research Awards, Ottawa.

2010. Invited resource person and guest speaker, Annual Retreat of the Halifax United Way, Board of Directors, Dartmouth, NS.

2009. Consultant on housing needs in Halifax, with Jack Layton, Leader, New Democratic Party.

2009. Jury member, CMHC Student Housing Awards, Ottawa.

2009. Consultant to St. George's Round Church Building Committee, Halifax.

Recent Honours and Awards

2010. Keystone Legacy Award, Nova Scotia Association of Architects.

2010. Emeritus Professor, Faculty of Architecture and Planning, Dalhousie University.

2010. Lieutenant Governor's Award for Architecture, for Creighton/Gerrish Development Association housing project, designed by Niall Savage Architecture.

2009. Holly House Hero Award, Elizabeth Fry Society, for contributions to affordable housing.

Professional Memberships and Qualifications

Royal Architectural Institute of Canada: member

<i>Course Taught in 2012–13</i>		<i>Term</i>
ARCH 4304.01	Professional Practice (B5)	winter

Teaching

Adjunct	Dalhousie University	2004–2012
Sessional Instructor	Ryerson University	

Education

BTech	Ryerson University	1983
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Recent Scholarship (Research and Creative Activity)***Design Practice***

Hanscomb Limited, Toronto: Executive Vice President

Professional Memberships and Qualifications

Canadian Institute of Quantity Surveyors: fellow

Royal Institution of Chartered Surveyors: member

Society of American Value Engineers: accredited member

4.5 CACB Visiting Team Report (2009)

2009 Visiting Team Report Master of Architecture Programme Dalhousie University

Canadian Architectural Certification Board
Conseil canadien de certification en architecture
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I. Introduction

1. Accreditation

The Canadian Architectural Certification Board receives its authorization as the accrediting agency for professional degree programmes in architecture from the Committee of Canadian Architectural Councils (CCAC) and the Council of Canadian University Schools of Architecture (CCUSA).

The CACB was first established by the participating provincial architectural licensing authorities in 1976 to certify the academic credentials and educational experience of applicants for professional internship. Until 1991, its membership comprised one representative from each of the participating licensing authorities.

In 1991, by agreement between the CCAC and CCUSA, the Board's original mandate for professional degree certification was re-affirmed and its responsibilities were extended to the accreditation of professional degree programmes in Canadian university schools of architecture. Simultaneously, its membership was revised to reflect its additional accrediting role, to comprise three members representing the CCAC, three members representing the CCUSA, three members drawn from professional practice mutually agreeable to the CCAC and the CCUSA, one member representing a national organization of students of architecture and one member representing the public interest.

The CACB awards accreditation only to professional degree programmes in architecture. These are normally:

- Bachelor of Architecture programmes requiring a minimum of five years of study, except in Quebec, where four years of professional studies follows two years of CEGEP studies;
- Master of Architecture programmes with a related pre-professional bachelor's degree requirement, typically amounting to six years of study;
- Master of Architecture programmes without a pre-professional requirement, comprising an undergraduate degree plus a minimum of three years of professional studies.

Accreditation does not distinguish between the Bachelor's and Master's degree titles.

The process of accreditation begins at the school with the preparation of the Architectural Programme Report (*APR*). The *APR* identifies and defines the programme and its various contexts, responding to the Conditions and Procedures for Accreditation established by the CACB. The *APR* is expected to be useful to the planning process of the school, as well as documentation for the purposes of accreditation.

Upon acceptance of the *APR* by the Board, an accreditation visit is scheduled. The CACB's decision on accreditation is based upon the capability of the school's programme to satisfy the Conditions and Procedures for Accreditation, including the ability of its graduating students to meet the requirements for learning as defined in the Student Performance Criteria.

During the visit, the team reviews student work and evaluates it against these requirements. The team also assesses the effectiveness and degree of support available to the architectural programme through meetings with the institution's administrators at various levels, architecture and other faculty, students, alumni, and local practitioners.

At the conclusion of the visit, the team makes observations and expresses compliments and concerns about the programme and its components. It also offers suggestions for programme enrichment and makes recommendations, which, in the judgement of the team, are necessary for the programme's improvement and continuing re-accreditation.

II. Summary of Team Findings

1. Strengths

1. A key strength of the Dalhousie programme lies in its commitment to regionalism, and direct engagement in the communities and cultures of Atlantic Canada, including the study of historic and contemporary architecture, promotion of social innovation, support of aboriginal and marginalized communities and fostering a regional discussion of and commitment to design excellence.
2. The location of the School in downtown Halifax is a tremendous strength. It is in a central and prominent location in a lively urban core. It provides a high quality of experience for the students, a presence for Dalhousie University in the centre of the city and a threshold to the Sexton Campus. The School of Architecture can be a pole and a catalyst in the development of a creative cluster in downtown Halifax.
3. The idea of craft is central in the philosophy of the school. It is a clear point of identity that is valued by the school community. The commitment to 'making' is reflected across the curriculum and especially in studio work and design/build projects.
4. The Free Lab programme is a unique and valuable feature of the curriculum that builds skills, develops community, enhances engagement and takes advantage of the year round operation of the School of Architecture.
5. The co-op programme is a long-standing strength, connecting students to the practice of architecture in its national and global contexts.
6. The school enriches the experience of students by means of concentrated block courses, visiting instructors, exchanges, study abroad, guest lectures, and visiting teachers.
7. The quality of the student body is key to the success of the programme. Students arrive with previous university and life experience, creating a highly qualified, dedicated, articulate and diverse student body with varied preoccupations and high expectations.
8. While faculty teaching and scholarship activities reflect personal background and aspirations, the faculty as a whole speaks with a collective voice, lending a unique identity to the Architecture Programme. The visiting team discerns a strong sense of unity in terms of developing an educational program that makes the curriculum unique; distinctive for the faculty, and attractive to the members of the student body who shared with the visiting team the view that Dalhousie's reputation made them choose this institution over others.

9. The space and facilities, particularly the design studios, foster intensity, intimacy and a sense of community and collaboration between faculty, staff and students at all levels. This is a strength that must be maintained as the overcrowding and other inadequacies of the present provision are dealt with.
10. Programme Director Terrance Galvin is an energetic and passionate leader who has the success of the students and faculty at heart. Faculty and students in turn recognize his numerous contributions to the programme. His success as a leader stems in part from his commitment to teaching. The team must, however point out that he is maintaining a teaching load that is disproportionate to his numerous responsibilities as Director. As new faculty join the Programme Director Galvin's teaching responsibilities should be reassessed.
11. Christine Macy's new role as the Dean of the Faculty of Architecture and Planning has been well received by the administration and faculty members. Her leadership is setting in place a holistic and inclusive approach to the faculty's teaching, research, and service responsibilities. Within Dalhousie's tradition as a teaching institution, Dean Macy is forging a new teacher-scholar model that will enhance and increase faculty scholarship. Her alumni and outreach responsibilities are supported by the hiring of the new Development and Alumni Relations Officer and Dean Macy has been very strategic and optimistic in her abilities to mobilize external constituents in supporting the Programme.
12. The Team compliments the Faculty and the University for their actions in addressing the weaknesses of the collection and facilities in the Sexton Library. We encourage a continued commitment to the improvement of the facility and a careful consideration of its possible role in the development of the Sexton Campus.
13. The publications programme, including the Tuns press operation is not only a strength of the Architecture Programme, but a benefit to the design community in Canada.

2. Concerns

1. The visiting team was struck by a unified teaching approach that favors analog over digital methods of representation, communication and experimentation. The team acknowledges this approach, and is aware of the recent addition of digital fabrication capacity and the fact that the school remains open to a variety of representational techniques. Still, the team must voice its strong concern over the relative lack of the application and exploration of digital techniques in the curriculum and in the student work displayed. This condition may undermine essential pedagogical and professional benefits, including the opportunities to secure internships in an increasingly competitive job market, remain competitive with a profession that has become more complex in its integrative and interdisciplinary approach to the built environment. It may also be detrimental to essential student learning outcomes that focus on the integration of a comprehensive approach to building design.
2. The team is not satisfied that the programme has dealt adequately with the deficiency in the area of comprehensive building design identified by the previous visiting team.
3. While there have been significant improvements to the space and facilities in the Faculty of Architecture and Planning building the Team must point out that some areas remain inaccessible. The Design Studios are overcrowded. The provisions for graduate students in particular are inadequate. The school requires additional space for lectures, classes, reviews, exhibitions and informal meetings. In a programme dedicated to the process of making, it is clear that the shops and fabrication facilities need to be expanded.
4. The programme should explore ways of improving the level of graduate student financial support.

3. Comments

1. The Visiting Team appreciates the strength of the commitment to the art of building that drives the programme at the moment. It is our view, however, that the commitment that exists can be deepened and enriched through the engagement with new methods and techniques in design technology. This is not about simple digital drawing, but rather a wide range of opportunities in visualization, representation, fabrication, and integrated and responsive systems. It is our view that exploring these areas in no way requires 'computer centered courses' and is in no way contradictory to the school's philosophy of craft and making.
2. The team was impressed by the number of initiatives that are underway or in the planning stages, including the College of Sustainability, the relocation of the recently expanded School of Planning, the development of the Centre for Innovation and Design in Engineering and Architecture and the plans for developing the Sexton Campus. The University must be sensitive to the expectations placed on the School of Architecture, which is a small unit with limited human and financial resources. The School and the Faculty must be engaged and play a key and catalytic role in all these initiatives, and may indeed transform itself in the process, but its existing coherence and strengths must be protected and enhanced. For the Faculty of Architecture and Planning the key concern is to use the opportunity to forge a stronger, more balanced and truly cross-disciplinary relationship between Planning, Architecture and Engineering.

4. Programme's Progress in Addressing Past Deficiencies

a) Causes of Concern from 2004 VTR

1. On the basis of the review of the APR, the Team Room exhibit of student work, related planning documents and recent external reviews, the Visiting Team is concerned that the School's current strategic plan is not wholly inclusive nor fully adequate in its breadth, comprehensiveness and full engagement with the University's institutional mission.

While the 2009 team remains concerned about the lack of a coherent and explicit Strategic Plan for the School of Architecture, there is not the slightest doubt that the School figures very prominently in discussions of the institutional mission of Dalhousie University and, in particular, the development of a centre of design innovation on the Sexton Campus.

2. In the context of the Senior Administration's stated focus in significantly expanding future student enrollment, the School has not yet fully determined a measured plan that responds to concerns raised by Faculty, Staff and Students regarding the quality of the learning environment, including the School's resource base, capacity for staff support, faculty recruitment and hiring, and provision of physical facilities.

Enrolment levels have stabilized and allowed the program to gain equilibrium. Investments have been made to improve the overall quality of the learning environment. Dalhousie University is clearly supportive and appreciates the opportunities architecture provides in its plans for the future.

3. Notwithstanding the School's tradition of significant commitment to time-intensive models of teaching coupled with the desire to ambitiously engage in cultural and community initiatives, it must, in addition, acknowledge the imperative to explore the full potential of digital media to enrich professional architectural education.

The present team raises virtually the same concern in its report. It seems the situation has not changed greatly since 2004. The lack of exploration of the potential of digital media was evident from the first moments in the Team Room. The addition of equipment that will allow students to explore digital fabrication techniques holds out the possibility that the school will jump directly into digital media in three dimensions and with physical outcomes. This would not only be a very interesting development, but it would seem very much in keeping with the overall philosophy and approach of the School.

4. The evident stress on resources of the physical facility has impinged upon the cultural vitality and direction of the School. Current projections of further increases in student enrollment must be carefully weighed against this reality, and conclusions presented to the University Administration.

The School seems extremely culturally vital. The compactness of the building and the density of the studios present challenges, but they also foster a rich community and a lively exchange involving students, faculty and staff. There is no doubt that

improvements to the space and facilities must continue, but there is nothing obviously wrong with the quality of the culture of the School, which must be protected as conditions improve.

5. Evident imbalances in faculty gender persist. Further, as reported by students, the architectural profession is portrayed as a future with little opportunity for equity in the workplace.

The gender balance on the Faculty has improved marginally. The team found that female students were receiving encouragement to pursue their careers in the architectural profession.

6. Issues of the quality of environment and currency of material continue to raise concerns regarding the accessibility of research information in both the Sexton Library and the Faculty's own Resource Centre.

The University, the Faculty and donors have provided a substantial increase in resources to the Sexton Library. The development of the library and the information resources is clearly an institutional focus at the moment.

b) Conditions Not Met in the 2004 VTR

Physical Resources

The programme must provide physical resources that are appropriate for a professional degree programme in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

This condition is now met. Some reservations remain and are explained below.

Information Resources

The architecture librarian and, if appropriate, the staff member in charge of visual resource or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library.

This condition is now met. Some reservations remain and are explained below.

c) Student Performance Criteria Not Satisfied in the 2004 VTR

12.14 Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities.

This condition is now met.

12.22 Building systems integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

This condition is still not met.

12.29 Comprehensive design

Ability to produce an architecture project informed by a comprehensive programme, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the programme's design criteria.

This condition is still not met.

12.30 Programme preparation

Ability to assemble a comprehensive programme for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria.

This condition is now met.

III. Compliance with the Conditions for Accreditation

1. Programme Response to the CACB Perspectives

Programmes must respond to the relevant interests of the constituencies that make up the CACB: education (CCUSA), members of the practicing profession, students and interns, provincial associations of architects (CCAC) and public members.

Met Not Met
[X] []

A. Architecture Education and the Academic Context

The programme must demonstrate that it both benefits from and contributes to its institutional context.

Met Not Met
[X] []

The School of Architecture benefits from being located in the small Faculty of Architecture and Planning. Though the connection of the School with Dalhousie University is relatively new, a good relationship has developed over the last decade. The recent commitment by the University to improving the library resources in architecture is strong evidence of institutional support. There are, however, some shortcomings. The two schools in the Faculty are strongly encouraged to find more opportunities for collaboration in teaching and research, given their many common interests. The expressed desire on the part of both the Architecture and Planning programmes to establish a new programme in landscape architecture is encouraged, as long as new resources become available to support it. Further, there remain undeveloped opportunities for the Faculty of Architecture and Planning to work with the Faculty of Engineering. Moving forward, the new Innovation and Design initiative is an opportunity for the School of Architecture to expand various programmes. The School is fully involved in the new College of Sustainability, with Prof. S. Mannell recently installed as the founding director. The School of Architecture occupies an important location in downtown Halifax, however, the Sexton campus does suffer somewhat from its isolation from the main Dalhousie University campus. Finally, the apparent lack of a current Strategic Plan for the School of Architecture is a significant concern.

B. Architecture Education and the Students

The programme must demonstrate that it provides support and encouragement for students to assume leadership roles during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

Met Not Met
[X] []

The student body at the Dalhousie School of Architecture is articulate, motivated, and knowledgeable. Students are generally well supported by the programme, and strongly

benefit from the co-op work experience. The students enjoy a good working atmosphere and are very supportive of one another. The School has a strong overall pedagogy, which must continue to encourage students to explore the wide range of design approaches. The student body is diverse, reflecting the various regions of Canada. Despite the regional focus of the programme (which is a strength), the program provides many opportunities for national and international exposure (co-op placements, study abroad programmes, visiting teachers, etc.).

C. Architecture Education and Registration

The programme must demonstrate that it provides students with a sound preparation for the transition to internship and licensure.

Met Not Met
[X] []

Through the co-op programme students in the School of Architecture have a good knowledge of the profession and the registration processes. The school has an excellent relationship with national and international professional communities through the work term programmes and its extensive network of contacts. There are also a number of active practitioners teaching in the School as sessional faculty. The School has a permanent voting seat on the NSAA Council.

D. Architecture Education and the Profession

The programme must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.

Met Not Met
[X] []

The integration of the co-op programme and practitioners into the curriculum means that students have a good knowledge of professional practice; the School also offers innovative, and well received, professional practice courses. The students understand the changing nature of the profession and the many roles that professional architects fulfill. While most students seem to develop adequate digital skills on their own initiative and through their work term experience, some concern remains as to how students will fully integrate into a profession that is now largely digital.

E. Architecture Education and Society

The programme must demonstrate that it not only equips students with an informed understanding of social and environmental problems but that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

Met Not Met
[X] []

The programme demonstrates a strong commitment to Halifax and the Atlantic region, particularly small communities. The concentration on social and environmental issues tends to occur in the graduate programme. The graduates have a good understanding of the many stakeholders involved in building environments, and the political and ethical issues associated with this. Throughout the programme there is a strong emphasis on culture, local history, and various national and international opportunities. The various initiatives in Africa are noteworthy. While the curriculum recognizes a variety of environmental factors in design, there is not adequate evidence that students have a deep knowledge of design and technical strategies for sustainable design.

2. Programme Self-assessment

The programme must provide an assessment of the degree to which it is fulfilling its mission and achieving its strategic plan.

Met Not Met
[X] []

The recent University Senate review of the Architecture Programme, coupled with the systems of course evaluation, student and faculty questionnaires and portfolio and curriculum reviews, meet the requirement for self-assessment.

There is little evidence that a Strategic Plan currently exists. A comprehensive strategic plan for the School of Architecture and the Faculty of Architecture and Planning must be put in place in light of the many initiatives and opportunities that have recently appeared, including the College of Sustainability, Innovation in Design Engineering and Architecture (IDEA) and new facilities for the School of Planning and the potential for programmes in Landscape Architecture and Urban Design, community outreach, fundraising initiatives and the development of the Sexton Campus.

3. Public Information

The programme must provide clear, complete, and accurate information to the public by including in its catalogue and promotional literature the exact language found in Appendix A-2, which explains the parameters of an accredited professional degree programme.

Met Not Met
[X] []

The public presentation of the programmes and accreditation status of the School of Architecture is fair and accurate. The CACB statement is contained in the university calendar and on the web site.

4. Social Equity

The programme must provide all faculty, students, and staff – irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation – with equitable access to a caring and supportive educational environment in which to learn, teach, and work.

Met Not Met
[X] []

Like other large research universities in Canada, Dalhousie University's collective agreement ensures that the university has comprehensive policies governing all aspects of faculty appointment (including recruitment), re-appointment, promotion and tenure. The University is an "Employment Equity/Affirmative Action" employer, and has a clear no discrimination policy. Further, the University and the School of Architecture recognize the need for gender equity. Currently, there are 4.0 FTE who are women (out of a total of 13.8 FTE), including Dean Christine Macy, who was appointed in 2008. One new female faculty member has been hired since the last CACB accreditation visit in 2004.

Students, faculty and staff are actively and widely involved in the administration and governance of the School of Architecture.

While a large proportion of the student body is female (44% over the last 5 years), males still constitute the majority (71%) of the regular faculty. Efforts to increase the diversity of the faculty complement should continue.

5. Human Resources

The programme must demonstrate that it provides adequate human resources for a professional degree programme in architecture, including a sufficient faculty complement, an administrative head with enough time for effective administration, administrative and technical support staff, and faculty support staff.

Met Not Met
[X] []

The faculty members of the School of Architecture hold terminal professional degrees from a variety of national and international schools, however, a number are also graduates of Dalhousie University (previously TUNS). A substantial proportion of faculty members hold PhD's. The team recognizes that the faculty forms a strong and cohesive cohort of gifted educators who provide a high level of education for their students.

The faculty complement has increased since the last accreditation, with the two faculty retirements and the hiring of four full-time tenure-track faculty positions, the conversion of 2 half-time faculty positions to 100% and the conversion of three part-time faculty to 50% DFA tenure-track positions (APR 2008 p.10 and 70). The core group of regular faculty is balanced throughout the academic year by an equal number of critics and adjunct faculty who are drawn largely from a pool of talented professionals practicing in the Province of Nova Scotia and elsewhere.

Faculty members pursue their teaching responsibilities, scholarly activities, and service component with passion and enjoy the trust of the students and administration. While

there exists a great sense of diversity of teaching philosophies and scholarly activities in all five areas of Design, Humanities, Technology, Representation and Professional Practice, there remains a very strong sense of collegiality and mutual respect among the faculty.

Students

The wide range of backgrounds evident within the student body is impressive and is clearly a significant benefit to the programme. Overall, the students are supportive of the faculty, the leadership and the general direction of the School and feel that they have sufficient contact with faculty members. Some students expressed concerns on the quantity, depth and timing of critical feedback. Others indicated a desire for more variety in the selection of sessional instructors.

Faculty

The faculty members clearly share an enthusiasm for the vision of a programme based in “craft, collaboration and service”, which has guided the changes to the programme structure completed since the last visit. The faculty complement is now on a more stable footing given the increase in the number of tenured members since the last visit. There is currently one vacancy to be filled in the near future. This is most important in reinforcing the Technology stream. There still is a concern that the teaching load of the Director is excessive in the light of his administrative duties.

Administration

The faculty appears to have gelled under the new Dean, recently appointed for a five-year term. The current Director's term will end in 2009. The general administrative staff and structure remain relatively unchanged since the previous visit. Ongoing University discussions on expanding the physical facilities and cooperative ventures with the Faculty of Engineering indicate that relations with the University have improved significantly. Given recent collective agreements, the University will have stable labour relation through 2011.

There are four administrative positions directly responsible for the leadership and administration of the School of Architecture: the Dean of the Faculty of Architecture and Planning (Prof. C. Macy), the Director of the School of Architecture (Prof. T. Galvin), and the Undergraduate and Graduate Coordinators (both positions currently occupied by Prof. S. Parcell). The various levels of administration have clear responsibilities and work effectively together. Prof. Macy was appointed Dean in 2008, after an internal search, and brings energy and strong leadership qualities to the position. The Faculty of Architecture and Planning has recently engaged a development officer and will be embarking on a fund-raising and promotion campaign. As noted above, Prof. Galvin will complete a three-year term as Director at the end of 2009. The position is a revolving internal one, it is not known who will occupy it after this term. As the Director, Prof. Galvin has made a variety of positive changes to the organization of the School of Architecture.

Staff

The Architecture program is well served by a diverse staff team that diligently and passionately attends to the daily activities of the School of Architecture. There exists a healthy and respectful dynamic between staff members and the administration, as well

as with the faculty and student body. Staff commented on the excellent teamwork and mutual support amongst each other. This is particularly important in such a small academic unit.

Among areas of concern, staff continue to work on difficulties related to the three semester system (School of Architecture) versus two semesters employed in other faculties on campus. This is a direct result of the merging of The Technical University of Nova Scotia (TUNS) with Dalhousie University.

Staff members are attentive to their public responsibilities in assisting prospective students make an informed decision about the opportunities offered by the School of Architecture, but this process takes place in less than adequate office spaces. The School is currently reorganizing space in order to create a reception and information area that will receive and inform prospective students. As one person deals with all inquiry e-mails as well all responses, it may be of value to review this process and provide more support. This is especially important in face of the recommendation to ask prospective students to do a brief exit survey which will allow staff to better respond to prospective students' needs as well as tailor the school's offering.

Technical support staff members play an extremely important role in the teaching programme of the School of Architecture. Several individuals hold hybrid positions, part technical support staff, part teaching. This seems an effective use of human resources and engages the staff even more deeply in the community and central mission of the School of Architecture.

Concerns were expressed that the 2% yearly budget cutback imposed by the University has had the cumulative effect of stressing resources and forcing administration to rely on carry forward. With these resources nearly depleted, budgets will be stressed. This reduction in budget is connected with a desire to pare back programs offered. If it is necessary to reduce the number of courses offered, the removal of obsolete, redundant, or less relevant courses should be done on a proactive basis, allowing the School to protect relevant courses, moderate staff workload and maintain important initiatives such as the exit survey.

The most commonly expressed concern lies within the area of technology and technical support related to the administrative systems and teaching in the School of Architecture. The problem results from the incorporation of the former TUNS into Dalhousie. There is still incompatibility between the two administrative systems and a widely perceived lack of technical support from the University in the areas of IT, administrative systems, Audio Visual facilities and teaching support in the School of Architecture.

6. Human Resource Development

Programmes must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the programme.

Met Not Met
[X] []

Faculty appointment, reappointment, tenure and promotion

The University Policies are clear and have been applied fairly and productively in the School of Architecture.

As stated in the previous the 2004 Visiting Team Report, the team remains concerned with the heavy teaching load carried by faculty members. While the School gained its reputation as primarily a teaching institution, many faculty have embraced the teacher-scholar model and find it increasingly more difficult to negotiate a heavy teaching load with their scholarship activities.

Facilitation of faculty research, scholarship and creative activities

There is good faculty support for scholarship and practice activities, including the regular awarding of sabbaticals, and basic support for attendance at conferences, etc. A number of faculty members have secured external funding to support research and scholarship.

Faculty awareness of changing demands of practice and licensure

Generally the program is well connected to the profession, with a number of half-time and full-time faculty holding professional registration.

Student support services and events

The Faculty provides sufficient facilities and staff to support the needs of students in technical (printing, woodshop, digital modeling), career and academic areas.

The Co-op program is an integral part of the professional programme in both the undergraduate and graduate degree. A full-time director and a part-time assistant are assigned to this programme and have been augmented recently by the addition of a full-time external relations coordinator in charge of alumni outreach and fundraising. Although this new position will likely help, constant support is essential to sustain the quality of the Co-op programme. The programme's openness towards the profession is also complemented by the regular Professional Practice weeks.

The School's tradition of inviting external reviewers and lecturers has been maintained despite cutbacks.

Public Exhibitions

The ability to maintain a continuous and comprehensive programme of exhibitions has been seriously compromised by the shortage of teaching spaces in the Faculty building. Currently, the Exhibition Room is primarily used for teaching and reviews, normally limiting the number of exhibitions to two a year. Given the School's prominent location in downtown Halifax, it is a priority for the School of Architecture to reclaim the exhibition space and to re-establish a full programme of exhibitions. Along with the lecture series this will extend the School's role in the local community.

Financial Support for Graduate Students

Low levels of financial assistance at the graduate level is a significant concern, mainly for maintaining the attractiveness of the programme compared to other institutions. This is a cross-university issue, but it does not seem to have a large impact on the quality of the student experience.

Facilitation of student participation in off-campus activities

The programme has a long tradition of community integration in teaching, research and events.

Student participation in professional societies and campus activities

Although architecture students are isolated from the main Dalhousie campus, the presence of the Faculty of Engineering on the Sexton Campus ensures that some level of exchange takes place. The Architecture Students Association also keeps links with the Dalhousie Student Union and the NSCAD student association.

7. Physical Resources

The programme must provide physical resources that are appropriate for a professional degree programme in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

Met Not Met
[X] []

The Ralph Medjuck Building was constructed in 1908 and has had several additions and internal upgrades in the intervening years. The building is attractive and interesting, and the modifications have made the best use possible of this facility. There are some severe limitations imposed by the age and heritage nature of the structure, and by the fact that the School of Architecture must share space with the School of Planning.

The School has conscientiously carried out a process of remedying deficiencies that were identified in the last Visiting Team Report, to a point where little more can be accomplished, other than to address specific safety issues, such as adding stairway handrails where none currently exist.

The building is almost alarmingly well-used. Every available space seems to be utilized, often creatively. The main lobby, for example, doubles as a presentation area. Benches have been placed in unexpected locations to promote casual discussions. Nevertheless, the studios, in particular, are extremely tightly packed. This is generally regarded by the students as an asset. On one hand, they appreciate the benefit of learning from their colleagues, on the other, the amount of space available to each thesis student is severely limited. There are not enough classrooms and informal meeting space is still too rare. There are optimistic plans to expand the facilities on the Sexton Campus, which, if the university is able to raise the required funding, should be under way soon.

Universal Accessibility

Wheelchair access is not available to the Upper Studio, Computer Lab and Spray Room on the 3rd Floor, the Level D Mezzanine on the 2nd Floor, the faculty office mezzanine, and the Woodworking Shop on the Ground Floor. Door clearances are a problem for access to the Centre Studio and Student Lounge in the 2nd Floor.

Space Shortage

The building is an interesting and stimulating place to be, but it is very evident that the students do not have adequate space allocated to them. One work surface and one storage unit is not enough for working on models and coordinating related drawings. The students have very little wall space to tack up drawings, and there are very few places where small groups can gather to have discussions.

Comfort

The Mezzanine levels in the East and West Studios are hot and airless at times, and students say they sometimes can't work there for very long. The Upper and Central Design Studios are sometimes cold.

Miscellaneous

The southwest exit stair is enclosed with wire mesh. The students prop open this door in the summertime to get fresh air in the summertime, Pigeons get into this space and leave mounds of droppings on the landings. This is a health hazard.

Future Facility Improvement Projects

It is anticipated that the School of Planning will move out of the Ralf Medjuck Building and into the Murray Building to the south. It is anticipated that a new building may be constructed nearby to be shared by the Faculty of Engineering, the School of Planning, and the School of Architecture. This would go a long way to resolving the extreme space shortage issues for the School of Architecture.

Computing Resources

While most students own personal laptops, there are thirty-six up-to-date workstations running MacOS as well as printers that are centrally located in each design studio. These computing resources are made available for students in both the BEDS and M.Arch Programme. In addition, a digital printing facility offers students printing capabilities that assist them in printing their files during regular school hours. The School does not currently have a full wireless network, but is participating in a campus-wide wireless initiative which would see a wireless system put in place within the next 6 months.

The newly acquired digital fabrication equipment adds a dimension that is very important to the student experience, supports graduate design research and expands digital design to the realm of the physical, which seems a very good fit with the overall pedagogy of the School.

8. Information Resources

The architecture librarian and, if appropriate, the staff member in charge of visual resource or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library.

Met Not Met
[X] []

Context

The Sexton Design & Technology Library supports the educational and research needs of both the Faculty of Architecture and Planning and the Faculty of Engineering. The Library is situated on the Sexton Campus, a short walk away from the School. The School also houses in its building a Faculty Resource Centre with additional material (journals, maps, slides, etc). The nearby NSCAD is also used by students and faculty.

Funding

Since the last visit, a large increase in funding has helped the Sexton Library expand its collection and fill in some gaps. The architecture collections budget received a \$30,000 base increase in 2005/06 and is now \$93,077 (for 2008/09), up from \$54,166 in 2003/04. University policies prohibit budget cuts to the library and allow a 2%/year increase. In 2006, a donation from the Faculty of Architecture and Planning of \$105,000, including \$70,000 designated for architecture, also allowed the purchase of 1,000 architecture books and 650 planning books.

The Resource Centre does not have a separate collection budget; costs are administered under the general Faculty budget.

Subject coverage

The concerns expressed in the 1999 and 2004 Visiting Team Reports regarding the breadth, scope and complexity of subjects have been in large part alleviated by the increase in funding and the Faculty donation. The Library hired a one-year contract librarian to manage this donation.

Although not all faculty members provide recommendations for new purchases, the Design & Technology Librarian is aware of the necessity to create a balance between the different research focuses of the faculty and students. Purchases have been made in both monographs and history, theory and criticism books.

Dalhousie University Libraries recently purchased licenses for ARTstor and Archivision Image Library, which can be accessed by students and faculty.

The large amount of new money invested in the past years has helped fill in many gaps, but there are still many out-of-print books missing.

Although the Architecture Librarian is a voting member of the Faculty Council, the absence of an advisory committee for the library appears to be an issue. Such a committee would help to settle questions related to the collections policy and enhance communication between the Library and the school community. The library advisory committee could advise on both future acquisitions and the possible discard of material.

Resource Centre

The Resource Centre is housed in a very limited space and cannot accommodate larger collections nor function as a working and reading environment. The ability to access information at any time of the day is appreciated by the students and fulfills, in part, the Centre's mission. Its office equipment is sufficient.

Serials/periodicals

In 2007/08, the Sexton library purchased 111 serial subscriptions. It subscribes to 47 of the 49 AASL Core Serial titles and 15 of the 26 supplementary titles. It also has access to over 100 architecture serials in digital formats through licenses. Extensive back collections are also kept, although the older volumes are not all easily available due to space limitations.

Conservation and Preservation

The Library's architecture collection is stored on standard metal library shelving. Periodicals are systematically bound when volumes are completed. Special collections are housed in a locked room next to the Librarian's office and are available by appointment.

Slides are kept at both the Library and the Resource Centre. Their digitalization is ongoing as collections are being accessed.

Collection Policy

There is a Library Collection Policy that is revised and updated regularly as changes in the curriculum occur. There is also a draft Collection Policy for the Faculty of Architecture and Planning Resource Centre. As was reported by the last visiting team, this draft policy still awaits faculty approval.

Services

The Sexton Library and the Resource Centre are barrier-free. Sexton Library's reference collection, course reserve and heavily used reference materials are available 103 hours a week. The Sexton Library Reference Desk is staffed 46 hours a week. The Resource Centre is open to students 24 hours a day; the slide collection 9-5, Monday-Friday. Reference service is scheduled 2 hours per day, or by appointment. The Curator is also normally present whenever the Centre is open. Online resources are available 24 hours a day.

Staff

Both the Sexton Library and the Resource Centre are operated by professionals dedicated to the needs of the students and faculty members. They recognize the importance of a fully developed professional and academic library to the success of the School's teaching and research. The head of the Sexton Library is a voting member of the Faculty of Architecture & Planning Council, is considered a part of the educational team and is included as needed in planning exercises. The Visual Resource Curator reports to the Dean of the Faculty of Architecture and Planning.

Facilities

The previous team reported on their concern with the serious space shortage. Discussions with the Design & Technology Librarian and faculty confirm that this is still a problem. The faculty expressed serious concerns with the need to discard some resources because of this space shortage. Although the budget increases have helped fill in the gaps and refresh the collection, space must not become an issue in keeping a broad and retrospective collection. Some solutions have been implemented, such as the discarding of printed engineering serials when digital editions also exist to leave space for architecture resources, but the Librarian's obligation to discard some books is a concern.

The library's current location is adequate and facilitates a good connection with the learning and research process. The Faculty of Engineering and the Faculty of Architecture and Planning's plans to move the Sexton Library to the proposed student-centred teaching and learning building will hopefully allow the addition of adequate space to house the collection.

The Resource Centre is an essential and well-used facility which would clearly benefit from a larger space. There is very limited space to work with maps and plans and a maximum of eight people can work in the room, with the slide room being accessible to only one person at a time.

9. Financial Resources

Programmes must have access to institutional support and financial resources comparable to those made available to the other relevant professional programmes within the institution.

Met Not Met

[X] []

The University Administration continues to contribute stable resources to the Architecture Program. In light of the Dean's new advancement, outreach and endowment responsibilities, an Alumni and Development Officer position has been created for the Faculty of Architecture and Planning, funded jointly by Dalhousie University and the Faculty of Architecture and Planning. Dean Macy anticipates that 20% of her time will be dedicated to alumni cultivation and is currently working with the newly appointed Officer on a series of initiatives leading to the first draft of a strategic funding plan.

The University allocates a small amount annually to cover professional expenses. There is also a small travel fund competitively available to faculty members requiring travel to conferences. Generally the faculty must seek external funding for scholarship, research, and practice related activities. Some members of the programme have been successful in securing research funding, however, there is a need for the faculty members to continue and expand research funding.

10. Administrative Structure (Academic Unit & Institution)

The programme must be a part of, or be, an institution accredited by a recognized accrediting agency for higher education. The programme must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programmes in the institution and sufficient to ensure conformance with all the conditions for accreditation.

Met Not Met

[X] []

Dalhousie University is a fully recognized and accredited university.

The Faculty of Architecture and Planning and the School of Architecture have autonomy in administrative and academic areas equivalent to other professional units at Dalhousie.

Other programmes in the Faculty of Architecture and Planning

There are two professional schools in the Faculty of Architecture and Planning, each with a Director working under a Dean. The administrative responsibilities are clear and effective. The two major degree programs in Planning are the Bachelor of Community Design and the Master of Planning. There is little overlap between the two schools in the areas of teaching and research. As the Innovation, Design, Engineering and Architecture (IDEA) initiative moves forward the Faculty of Architecture and Planning will have to be clear about its strategic planning goals. There should be more interdisciplinary activity between the two schools and any new programs that might be added (such as landscape architecture or urban design).

11. Professional Degrees and Curriculum

The CACB only accredits professional programmes offering the Bachelor of Architecture and the Master of Architecture degrees. The curricular requirements for awarding these degrees must include three components – general studies, professional studies, and electives – that respond to the needs of the institution, the architecture profession, and the students, respectively.

Met Not Met
[X] []

The BEDS/MArch program meets the CACB standard for consideration for accreditation.

Curriculum: general studies, professional studies, electives

With respect to the overall curriculum, the general studies component is primarily covered in the two prerequisite years of university level study, and through elective courses in the MArch component of the programme. This MArch portion of the programme is made up mainly of elective options in representation, technology, and humanities. There is a wide range of elective course offerings, which allow students to develop in a number of key areas.

12. Student Performance Criteria

The programme must ensure that all its graduates possess the skills and knowledge defined by the performance criteria set out below, which constitute the minimum requirements for meeting the demands of an internship leading to registration for practice.

12.1 Verbal and writing skills

Ability to speak and write effectively on subject matter contained in the professional curriculum.

Met Not Met
[X] []

Students write a great deal across the curriculum. The thesis includes a substantial written document. There is ample evidence of a highly developed capacity for verbal expression.

12.2 Graphic skills

Ability to employ appropriate representational media, including computer technology, to convey essential formal elements at each stage of the programming and design process.

Met Not Met
[] [X]

The student work presented to the Visiting Team reflects a good level of hand drawing. This craft has become a culture within the school and part of the hallmark of the educational system, expressed in many ways across the programme, in Design Studios, but also in academic courses in history and theory, building technology and building systems integration.

While fully respecting the school's dedication to the craft of architecture and the presentation and preservation of the craft of design and making, the position risks leaving students both less equipped to successfully translate their works into the digital medium that is required to produce them and not not having the opportunity to explore the potential of design and representation technologies.

The 2004 CACB report stated "Overall, however, a general lack of engagement with the full potentials of new media and technologies was noted as a concern." This statement is still true. While computer use is evident in the school, the visiting team found remarkable the preponderance of hand drawn materials in nearly all presentations on display. The students appear to be more comfortable with these traditional forms of representation than with computer graphic techniques for final presentation of projects. Students appeared to be using computer graphics as a back up to manual presentations, or as a tool for some components of their design process, but they then translate this into a series of manual drawings and models. Many of the students stated that they were attracted to the school because of this emphasis on hand crafted process. It appears that there is a taste for manual presentations within the faculty, and that the students respond to this.

12.3 Research skills

Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process.

Met Not Met
[X] []

This criterion is met primarily in architectural history and theory courses and in the MArch thesis.

12.4 Critical thinking skills

Ability to make a comprehensive analysis and evaluation of a building, building complex, or urban space.

Met Not Met
[X] []

Clear evidence is provided in both design and theory and history courses.

12.5 Fundamental design skills

Ability to apply basic organizational, spatial, structural, and constructional principles to the conception and development of interior and exterior spaces, building elements, and components.

Met Not Met
[X] []

The criterion is met through the sequence of Design courses in the undergraduate section of the curriculum.

12.6 Collaborative skills

Ability to identify and assume divergent roles that maximize individual talents, and to cooperate with other students when working as members of a design team and in other settings.

Met Not Met
[X] []

The work exhibited from the Free Labs shows the extraordinary effect of collaborative effort. There is abundant evidence of team work in a variety of other courses.

12.7 Human behaviour

Awareness of the theories and methods of inquiry that seek to clarify the relationships between human behaviour and the physical environment.

Met Not Met
[X] []

Required awareness is evident within various undergraduate courses.

12.8 Human diversity

Awareness of the diversity of needs, values, behavioural norms, and social and spatial patterns that characterize different cultures, and the implications of this diversity for the societal roles and responsibilities of architects.

Met Not Met
[X] []

This awareness is established through regular and high profile work with marginalized groups in the region and with communities in Africa.

12.9 Use of precedents

Ability to provide a coherent rationale for the programmatic and formal precedents employed in the conceptualisation and development of architecture and urban design projects.

Met Not Met
[X] []

Although there is substantial evidence of the use of case studies in Design Studio, History and Technology courses, the Matrix indicates no course that demonstrates 'Ability' in the use of precedents. But the team's review of material from the courses cited in the Matrix concluded, however, that the case studies provide students with substantial and useful knowledge of significant buildings and urban spaces.

12.10 Western traditions

Understanding of the western architectural canons and traditions in architecture, landscape, and urban design, as well as the climatic, technological, socio-economic, and other cultural factors that have shaped and sustained them.

Met Not Met
[X] []

The criterion is met in the sequence of History and Theory courses in the BEDS degree.

12.11 Non-western traditions

Awareness of the parallel and divergent canons and traditions of architecture and urban design in the non-Western world.

Met Not Met
[X] []

The series of exchanges and collaborations with African countries and First Nations communities provide awareness of non-western architecture. The required programme appears somewhat deficient in this area and should be strengthened .

12.12 National and regional traditions

Understanding of the national traditions and the local regional heritage in architecture, landscape, and urban design, including vernacular traditions.

Met Not Met
[X] []

The attention paid to regional architecture, both historical and contemporary, is one of the strengths of the programme.

12.13 Environmental conservation

Understanding of the basic principles of ecology and architects' responsibilities with respect to environmental and resource conservation in architecture and urban design.

Met Not Met
[X] []

Requirement for understanding of Environmental Conservation has been met at various stages throughout both the undergraduate level courses (4004, 4211 & 4212) as well as in graduate level courses (5000 series). This understanding is also evident within the Thesis Preparation and Thesis, though it is not identified as such on the matrix.

12.14 Accessibility

Ability to design both site and building to accommodate individuals with varying physical abilities.

Met Not Met
[X] []

The Matrix shows little direct focus on accessibility in the course structure, however a review of the studio projects at all levels indicates both an appreciation that accessibility is a fundamental concern with and the ability to incorporate this appreciation into project designs.

12.15 Site conditions

Ability to respond to natural and built site characteristics in the development of a programme and the design of a project.

Met Not Met
[X] []

The ability requirement was met at the Masters levels throughout the 5000 series courses and within the Thesis exercises at both the levels of preparation and thesis production.

12.16 Formal ordering systems

Understanding of the fundamentals of visual perception and the principles and systems of order that inform two and three-dimensional design, architectural composition, and urban design.

Met Not Met

[X] []

This criterion is satisfied in the design and representation courses in the BEDS programme.

12.17 Structural systems

Understanding of the principles of structural behaviour in withstanding gravity and lateral forces, and the evolution, range, and appropriate applications of contemporary structural systems.

Met Not Met

[X] []

The work exhibited from the building technology courses (3207,3208,4211,4212) shows an evolving understanding of basic structural systems and the analysis of the principal forces. This is reinforced by the strong focus on model building, both in the technology and studio courses. Most of the studio projects exhibited clearly show the influence of structural considerations on the design work.

12.18 Environmental systems

Understanding of the basic principles that inform the design of environmental systems, including acoustics, lighting and climate modification systems, and energy use.

Met Not Met

[X] []

The school's Matrix indicates that an understanding of environmental systems is gained in the building technology stream. In the BEDS level courses the focus seems to be more on site and climate analysis than systems to modify interior climate. While there is a definite focus on acoustics and daylighting, there is little or no focus on mechanical systems, except conceptually in course 5209 – Energy Efficient Design. Few of the studio projects, including MArch and Thesis, address environmental systems at all. Most design projects show no accommodation for mechanical plant or distribution networks.

12.19 Life-safety systems

Understanding of the basic principles that inform the design and selection of life-safety systems in buildings and their subsystems.

Met Not Met

[X] []

The principles are taught in 5311. The school's Matrix indicates a minimal focus on this criterion, however a review of work throughout the BEDS and MArch programs showed that exits, fire compartments, fire separations and fire suppression systems are

generally not addressed in either the technology stream courses or the MArch design studios. The studio projects reviewed show limited understanding of basic principles such as exiting concepts, dead-end corridors or travel distances.

12.20 Building envelope systems

Understanding of the basic principles that inform the design of building envelope systems.

Met Not Met

[X] []

The projects exhibited in the Technology stream do exhibit an understanding of the basic principles of envelope systems. An in-depth consideration of both the technical and expressive aspects of building envelope issues is evident. Again this seems to be fostered by the emphasis on models.

12.21 Building service systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

Met Not Met

[X] []

As in 12.18 above, the evidence indicates a basic understanding of building services is gained in the building technology stream.

12.22 Building systems integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

Met Not Met

[] [X]

Although integration of structural and enclosure systems appears to be adequately addressed in the projects exhibited, there is little evidence of the integration of environmental, life safety or service systems in the design work presented. Again the Coastal Studio is indicated in the matrix as the primary vehicle to address this issue, but there little was little evidence that this is achieved in a meaningful sense.

12.23 Legal responsibilities

Understanding of architects' legal responsibilities with respect to public health, safety, and welfare; property rights; zoning and subdivision ordinances; building codes; accessibility and other factors affecting building design, construction, and architecture practice.

Met Not Met

[X] []

This material is covered by Professional Practice and by the Co-op work terms. The reports displayed show a good grasp of the legal ramifications of professional practice.

12.24 Building code compliance

Understanding of the codes, regulations, and standards applicable to a given site and building design project, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, occupancy requirements, means of egress, fire protection, and structure.

Met Not Met
[X] []

Evidence for this criterion is claimed in many locations on the school's Matrix, but is mainly evident in the material displayed from course 5308. The material displayed for Professional Practice 5311 has code compliance exercises including sprinklers, limiting distance, and requirements for exits.

12.25 Building materials and assemblies

Understanding of the principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies.

Met Not Met
[X] []

The student work reviewed generally shows a good understanding of the nature and use of materials. This understanding has a broad base, reflecting the craft focus of the programmes. This is evident through both the technology and design streams and in particular in the free lab projects.

12.26 Building economics and cost control

Awareness of the fundamentals of development financing, building economics, and construction cost control within the framework of a design project.

Met Not Met
[X] []

The basic awareness requirement was met in 4304 of the undergraduate program as well as within 5308 and 5309.

12.27 Detailed design development

Ability to assess, select, configure, and detail as an integral part of the design, appropriate combinations of building materials, components, and assemblies to satisfy the requirements of building programmes.

Met Not Met
[X] []

Various courses require detailed design development.

12.28 Technical documentation

Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction.

Met Not Met
[X] []

It is obvious from the work presented that technical documentation in the traditional sense is not a priority in this school. This is underscored in the Matrix provided which indicates ability only in 4211- Building Systems Integration. While some technical drawing is exhibited, the majority of the exhibits for this course are in sketch and model format as opposed to traditional technical drawings.

Construction details and component drawings are evident in material from courses 3207, and 3208, and are described verbally in reports for courses in Professional Practice 3302, 5308 and 5311. No working drawing samples were included in the material shown.

12.29 Comprehensive design

Ability to produce an architecture project informed by a comprehensive programme, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the programme's design criteria.

Met Not Met
[] [X]

The Matrix indicates that this criterion is fully met only by two courses: 4212 (B5 Building Systems Integration), which is given in the final term of the BEDS programme, and 9008 (MArch Thesis). The team found some evidence to conclude that the concept of comprehensive and integrated design was presented in course 4212, with the students using their own designs in the process. The team remains concerned that the design skills of BEDS students are not developed sufficiently to deal with a building encompassing all the systems involved in a truly comprehensive design. At the advanced level, after reviewing a wide selection of recent thesis reports, the team found sparse evidence of comprehensive design.

12.30 Programme preparation

Ability to assemble a comprehensive programme for an architecture project, including an assessment of client and user needs, a critical review of appropriate precedents, an inventory of space and equipment requirements, an analysis of site conditions, a review of the relevant laws and standards and an assessment of their implications for the project, and a definition of site selection and design assessment criteria.

Met Not Met
[X] []

Through the design courses, the thesis preparation course, and the thesis project students develop an adequate ability to prepare programs, including site analysis, etc.

12.31 The legal context of architecture practice

Awareness of the evolving legal context within which architects practice, and of the laws pertaining to professional registration, professional service contracts, and the formation of design firms and related legal entities.

Met Not Met
[X] []

The material is covered in reports from the Professional Practice courses, and described in Co-op work term reports.

12.32 Practice organization and management

Awareness of the basic principles of office organization, business planning, marketing, negotiation, financial management, and leadership, as they apply to the practice of architecture.

Met Not Met
[X] []

The material is covered in reports from the Professional Practice courses, and described in Co-op work term reports.

12.33 Contracts and documentation

Awareness of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service.

Met Not Met
[X] []

Described verbally in reports for Professional Practice courses 3302, 5308 and 5311. No document samples are evident in the material shown.

12.34 Professional internship

Understanding of the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers.

Met Not Met
[X] []

Covered in Professional Practice 5311, and described in the Co-op work term 5308

12.35 Architects' leadership roles

Awareness of architects' leadership roles from project inception, design, and design development to contract administration, including the selection and coordination of allied disciplines, post-occupancy evaluation, and facility management.

Met Not Met
[X] []

Through the co-op and professional practice courses students have a strong awareness of the leadership roles of architects.

12.36 The context of architecture

Understanding of the shifts that occur - and have occurred - in the social, political, technological, ecological, and economic factors that shape the practice of architecture.

Met Not Met
[X] []

The sequence of course in the Humanities is effective in establishing an understanding of the context of architecture.

12.37 Ethics and professional judgment

Awareness of the ethical issues involved in the formation of professional judgments in architecture design and practice.

Met Not Met
[X] []

Claimed in many courses, but well covered in the MARCH Co-op work term reports.

IV. Appendices

Appendix A: Introduction to the Programme

1. Brief History of Dalhousie University

Dalhousie University was founded in 1818 by George Ramsay, ninth Earl of Dalhousie, who resided at Dalhousie Castle near Edinburgh and also served as Lieutenant-Governor of Nova Scotia. He wanted the new college to be modeled on the university in Edinburgh, as an institution that would be open to all, regardless of class or creed. Soon after the college was founded, Lord Dalhousie was appointed Governor-General of Canada and left Halifax. Without his influence, the college faltered. The first instruction was offered in 1838 but the college operated only intermittently. It was later reorganized and in 1863 reopened with six professors and one tutor. The first three degrees were awarded in 1866. The student body in that year consisted of 28 degree students and 28 occasional students.

The original site of the college was on the Grand Parade, in downtown Halifax, where City Hall now stands. In 1886, the university moved to the Forrest Building, which is now part of the central Carleton campus, and gradually spread west to form the Studley campus. In 1997, following the amalgamation of Dalhousie University and the Technical University of Nova Scotia (with its Faculties of Architecture and Engineering and its School of Computer Science), the Sexton campus was added. Dalhousie University grew throughout the twentieth century becoming Nova Scotia's largest university. It now occupies 79 acres on three campuses in central Halifax: Sexton, Studley, and Carleton campuses.

Throughout 11 faculties, Dalhousie's enrollment is over 15,440 students, with a female population of 56%. The university has grown from 6 professors in 1863 to 1,143 professors (in 2006). Dalhousie is home to 50 Canada Research Chairs, more than any university in the region, and over \$114 million is awarded annually in research grants and awards. The university offers more than 3,600 courses in 180 undergraduate, graduate, and professional degree programmes. The student-faculty ratio remains 14:1 (the lowest in Canada), and Dalhousie has graduated 86 Rhodes Scholars, more than any other Atlantic Canadian university. More than half of Dalhousie's students (52%) are from outside of Nova Scotia, while 8% of the student body comes from outside of Canada. More than 100 countries are represented at Dalhousie, where there are upwards of 96 exchange programs for students.

Dalhousie has a system of libraries, student residences (2700 units), an arts centre, an art gallery, a student union building, athletic and recreational facilities, etc. Major teaching hospitals, federal and provincial research laboratories, and the provincial archives are all close at hand. The University of King's College, situated adjacent to the Dalhousie campus, is an affiliated institution, as is the Nova Scotia Agricultural College in Truro. Inter-university agreements with two other Halifax universities, Mount Saint Vincent University and Saint Mary's University, give Dalhousie students access to their various courses and services.

Following the 1997 amalgamation of Dalhousie with the Technical University of Nova Scotia (TUNS), provincial legislation created a college called "DalTech" to oversee some academic, administrative, and research activities in Architecture, Engineering, and Computer Science. Following this transition, and since the Fall of 2000, the Faculty of Architecture became one of the eleven faculties at the university, along with the Faculty of Arts and Social Sciences, Computer Science, Dentistry, Engineering, Health Professions, Law, Management, Medicine, Science, and Graduate Studies. The Faculty of Architecture and Planning was approved in the fall of 2001; along with the Faculty of Engineering, we are now the two main faculties on Dalhousie's Sexton campus.

2. Institutional Mission

Over a decade ago, Dalhousie wrote a thirteen-page strategic plan: "Strategic Directions for Dalhousie University," which was approved by the Senate on 8 December 1997. After a long process of debate and input from the University and a series of consultants, Dalhousie developed the following comprehensive Mission Statement (including a Brand Promise, Vision, and seven Strategic Objectives):

Dalhousie Mission Statement

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Brand Promise

Opportunities that Inspire

Mission

Learning, discovery and innovation, and engagement (with our students, the university and the world)

Vision

Dalhousie will become Canada's best university, committed to advancing provincial and regional development by offering a diverse student body of about 17,500 an outstanding personal experience at a national university built around an excellent learning environment, acclaimed research strengths, broad program choices and successful career preparation in cooperation with supportive external stake holders

Strategic Objectives

1. Enhance Academic and Research Excellence
2. Enrich Student Experience
3. Strengthen Enrolment
4. Sustain Campus Renewal
5. Develop Excellent Human Resources
6. Increase Philanthropic Support
7. Ensure Financial Stability

President's Strategic Focus

Dalhousie University presented a document entitled the "President's Strategic Focus"

in January 2003 and it was approved in May 2003. This eighteen page document outlines the various foci within the University. In 2003, the "Dalhousie University Vision" was articulated with five strategic projects at its core. The initial five Strategic Objectives: Academic Research; Student Experience; Strengthen Enrolment; Campus Renewal, and Human Resources were expanded to include Philanthropic Support and Financial Stability (see *Strategic Objectives* above). The university's "Strategic Focus" was also intended to allow academic units to develop their own strategic plan using the university-wide document as a template:

"Academic departments, administrative units and Faculties also have a role in articulating their own plans, and many have adopted this methodology to guide their development. The President's Strategic Focus takes account of these efforts, as well as the major initiatives we currently have underway, and attempts to link them within a common strategic framework." (p.2.)

3. Programme History:

The Nova Scotia Technical College was founded in 1907, and in 1909 moved into a new building on the south side of Spring Garden Road at Brunswick Street, designed by Herbert Gates. Following World War II, the college became a wholly university-level institution offering undergraduate and graduate degrees. The campus expanded to include new buildings, primarily during the 1950s and 1960s.

The School of Architecture was established within the Nova Scotia Technical College in 1961, sharing the building on Spring Garden Road with the Nova Scotia Museum of Science. During the 1960s the professional architecture program started with two years of engineering at one of seven Maritime universities, followed by four years at the School of Architecture, leading to a Bachelor of Architecture degree. In 1969, the engineering prerequisite was changed to two years in any university subject. In 1970 the provincial museum moved out, the School of Architecture took over the entire building, and the trimester system and co-op workterm program were initiated. In 1973 the architecture portion of the professional program included a two-year pre-professional degree (eventually called Bachelor of Environmental Design Studies) and a two-year professional Bachelor of Architecture degree. The B.Arch. program was validated by the Commonwealth Association of Architects, and a one-year, post-professional Master of Architecture program was first offered. In 1976 the Faculty of Architecture was established, with the School of Architecture continuing as a constituent part of the Faculty. The main floor of the building was renovated, including the addition of a mezzanine for faculty offices. The Master of Urban and Rural Planning program was first offered in 1977, and in 1978 the Department of Urban and Rural Planning was established within the Faculty of Architecture.

In 1980 the Nova Scotia Technical College became the Technical University of Nova Scotia. During the early 1980s the studio level was renovated, mezzanines were added, and a resource centre was set up. In the mid-1980s the professional program was transformed, leading to a two-year Master of Architecture (First Professional) degree with a graduate thesis component. The School began to participate in overseas activities with the International Laboratory for Architecture and Urban Design (ILAUD), and adjunct professors and external examiners from various countries and fields were appointed. In the late 1980s the Faculty of Architecture

assumed responsibility for the university's publishing department, Tuns Press, which has since been devoted to producing architecture and planning publications. An arrangement with Apple Canada introduced an initial fleet of computers for student use. In 1989 a one-year, non-professional Master of Environmental Design Studies degree was first offered.

In 1993, following an international design competition, the first phase of a new addition designed by Brian MacKay-Lyons was built in the rear courtyard of the existing building. In 1994 the professional architecture program became the first in Canada to receive full accreditation from the Canadian Architectural Certification Board. In 1997, a decision by the Nova Scotia government to amalgamate universities led the three faculties of the Technical University of Nova Scotia (Architecture, Engineering, and a new Faculty of Computer Science) to become part of Dalhousie University. In 1999 and 2004 the CACB again granted full accreditation to the professional architecture program. In 2002 the second phase of the building addition was completed.

The directors of the School of Architecture have been: Douglas Shadbolt (1961–68), Vladimir Lyman (1968–70), and Peter Manning (1970–76). Since the Faculty of Architecture was established, the deans have been Peter Manning (1976–81), Essy Baniassad (1981–94), Frank Palermo (1994–96), J. Grant Wanzel (1996–97), Thomas Emodi (1997–2003), J. Grant Wanzel (2003–08), and Christine Macy (2008–present). Since 2000, when the dean/director position was divided, the directors of the School of Architecture have been Jacques Rousseau (2000–02), Steven Mannell (2002–05), Christine Macy, Acting Director (2005–06), and Terrance Galvin (2007–present).

4. Programme Mission

The Faculty's Mission Statement was last updated in July 1997, and was presented publicly to all deans and senior administrators of Dalhousie University in August 1997. The document was well received in a subsequent presentation to the President and Acting Vice-President (Academic and Research). Apart from events such as these, the university has no formal process for reviewing and approving Faculty mission statements.

A. Faculty of Architecture & Planning Mission Statement

The Mission Statement of the Faculty of Architecture & Planning (1997) states:

"The Faculty of Architecture & Planning includes the School of Architecture and the School of Planning, both of which offer professional degrees in their respective disciplines. As such, the Faculty is concerned with education and research focused on the built environment in all its aspects and scales. "

To achieve a comprehensive involvement in the shaping of the built environment is the long-term mission of the Faculty as a whole. Currently, the approved programmes in the Faculty of Architecture & Planning are:

In the School of Architecture:

Bachelor of Environmental Design Studies - BEDS

Master of Architecture - MArch

Master of Architecture - MArch (Post Prof.)

Master of Environmental Design Studies - MEDS

In the School of Planning:

Bachelor of Community Design - BCD

Bachelor of Community Design (Honours)

Master of Planning - MPlan

Master of Engineering and Master of Planning - MEng/MPlan

Master of Applied Science and Master of Planning - MASc/MPlan

Master of Planning Studies - MPS

Master of Urban and Regional Planning - MURP (being phased out)

School of Architecture Mission Statement

The Mission Statement of the School of Architecture was developed in the fall of 2002 and was adopted by the School in June 2003. It was presented to the Faculty of Architecture and Planning in September 2003 and to the Faculty of Graduate Studies in October 2003 in the context of revisions to the professional degree programme in Architecture. The Mission Statement of the School of Architecture expands upon the Faculty's Mission Statement with the following four main objectives:

To educate students in the discipline of architecture, understood as the craft of projecting and making built environments;

To prepare graduates to take on an engaged and committed stance to the advancement of the profession of architecture;

To work in the community, using Atlantic Canada as a laboratory for development of specific and authentic practices of architecture;

To extend the reach of architecture: as a cultural practice, and as a force in culture and society.

5. Programme Strategic Plan

Faculty Strategic Plan and Strategic Focus

In order to describe our current strategies within the School of Architecture, this section gives an overview of the Faculty's Strategic Plan (1998) and Strategic Focus (2003) during the past decade. Next, it covers the School of Architecture's last Strategic Plan (2002) and the more recent Senate Review Self-Study (2007). These two documents have led to our current evaluation of where we are as a School, and what priorities and goals we are setting for ourselves in the next three to five years. Together, they form a clear picture of what has been accomplished during the past decade and what opportunities await us in our next phase of growth. This process searches for evolution coupled with continuity.

Faculty of Architecture 'Strategic Plan' (1998)

The Faculty developed a strategic plan during 1997 and 1998 through a series of discussions held by the School of Architecture and the Department of Urban and Rural Planning, which was adopted formally by the Faculty of Architecture in August 1998. At that time, the strategic plan identified out four areas of growth and development:

- Teaching initiatives with increased enrollment
- Joint degrees
- Additional international contracts in architecture education
- Development of a Faculty research policy and focused areas of advanced graduate study.

Faculty of Architecture & Planning 'Strategic Focus' (2003)

In our amalgamated Faculty, the Dean's Strategic Focus was developed in September 2003 in response to the President's *Strategic Focus* document, outlined in **section 1.2**. This was presented by the Dean at a meeting of Dalhousie's Deans and Senior Administrators in September 2003.

Our Faculty Strategic Focus outlined a number of initiatives that have since been achieved but were in early development during the last Accreditation Visit in 2004. As a whole, the Faculty has experienced a number of major changes. Our studios have been significantly expanded and upgraded. The student body has grown appreciably. There have been several additions and changes to the teaching faculty. The School of Planning has successfully initiated a new undergraduate programme in community design. The Faculty has approved revisions to the professional programme in architecture. We have also put in place a series of governing policies and administrative structures at both the Faculty and the School level that were not there previously. The Gambia program has developed and is now offering Dalhousie degrees to the first graduates at GTTI. And the pre-BEDS programme is now offering a new course in drawing for potential BCD (planning) or BEDS (architecture) students.

The Faculty has also begun to benefit from an increase in cross-disciplinary communication, research and teaching, both within our Faculty and with colleagues in other units and in other parts of the University. Wider awareness of, and support for, both its disciplines and their related professions, within and beyond Dalhousie, will have many long-term benefits particularly with respect to recruitment. We will soon have a major contribution to make to the new Dal College of Sustainability due to our expertise in both architecture and planning. Finally, over the long term, recasting our extensive relationships with government and expanding our relations with the region's development and building industries has enhanced our fund raising efforts and begun to increase the School of Architecture's opportunities for funded research.

In last year's Faculty of Architecture and Planning "Self-Study" (2007), Dean Wanzel reminded us that we are a small Faculty and as a consequence must be 'strategic'. We must be 'focused' and cannot afford to squander our human, financial and physical resources. In this, we fully align ourselves with the sense of the President's 'Strategic Focus' document and recognize that the seven Strategic Objectives of Dalhousie University, mentioned in **section 1.2** are parallel to several of our own objectives regarding the quality of architectural education and research that we take

pride in. In order to enhance academic and research excellence, we have embarked upon a plan for expanding our faculty's facilities as part of sustaining campus renewal with the university. If several of our future goals are to be met, we will require resources for building expansion and renewal, along with a budget that will ensure financial stability, not only for the School of Architecture but for the Faculty as a whole. Our 2007 Senate Review "Self-Study" expands upon each of these issues. We will now turn from the vision and strategy of the Faculty to that of the School.

School of Architecture Strategic Plan and Senate Review 'Self-Study'

School of Architecture 'Strategic Plan' (2002)

A strategic plan for the School of Architecture, parallel but distinct from the 'Strategic Focus' for the Faculty, began to emerge in 2000. Our academic unit's strategy focused inward on the School's role in educating professional architects, in contrast to the outward focus of the Faculty's 1998 Strategic Plan. This strategy was consolidated in a Strategic Plan for the School of Architecture prepared by the School's Programme Committee in 2002. The principal component of the School's strategic plan at this time was the review and renewal of the professional degree programme in Architecture. Review and renewal of the School's post-professional and non-professional graduate programmes was seen as adjunct to the BEDS + MArch renewal. Strategies for the development of faculty research were viewed in relation to the renewed professional programme. The School focussed on a 'Revised Professional Degree Programme in Architecture' along the following lines:

Objectives

- to restructure and strengthen the BEDS programme as a foundation that develops basic architectural knowledge and skills within a broad disciplinary context, in support of more particularised, independent inquiry in the MArch programme
- to restructure and strengthen the MArch programme to achieve a better level of graduate study, and to reflect research interests and expertise of faculty, allowing students to tailor their graduate studies to individual interests and strengths

Principles

- the combined BEDS plus MArch degrees remain the accredited professional degree programme in architecture; there would be no increase in the number of terms required to achieve the MArch professional degree from BEDS admission
- the required number of academic terms for each degree (BEDS and MArch) would be aligned with typical practice in North America (i.e. 8 terms total for an Honours Bachelors' degree and 4 terms total for a Masters' degree)
- interdisciplinary study would be encouraged by coordinating course credit weights to typical Dalhousie practice (i.e. 3 credit/ 6 credit/ 9 credit course weights)
- a balanced weighting of streams would be maintained within the Architecture degree programmes, while significantly increasing the elective component within the MArch degree
- the revised programme would meet the requirements for accreditation of the Canadian Architectural Certification Board (CACB)

The revised professional degree programme in architecture was approved by the Faculty of Architecture and Planning in September 2003, and by the Faculty of

Graduate Studies Curriculum Committee in October 2003. Reviews by the Office of Institutional Affairs and the Financial Services Office were completed in Fall 2003. The revised programme began for incoming students in Fall 2004. With these structural procedures in place, we have been focussing on the quality of student design work and the rigor of faculty research as the foundation of the graduate programme. Review of the progress and success of the revised programme will continue under the School's current pattern of Year-End Reviews for all students at the end of Year 3 and Year 4, with a report to the School submitted by an External Examiner.

School of Architecture Senate Review 'Self-Study' (2007)

Building upon the Faculty's two documents mentioned above, Dean Wanzel and the Executive Committee drafted the 2007 Senate Review 'Self-Study' as a tool to reflect upon what the Faculty and the two Schools had accomplished during the five year period 2002-2007. In an excerpt from the Introduction to the Senate Review 'Self-Study,' Dean Wanzel wrote:

"Clearly the Faculty has not stood still since 2002. A number of long-serving faculty members have retired and been replaced by ambitious, young colleagues anxious to become fully functioning members of the Dalhousie family. The growth in the number of the Faculty's academic programmes and the dramatic expansion of its student body have brought with them both welcome benefits and pressing problems. On the whole however, as both Directors have indicated in their comments, we're much better off now than we were then. Much thanks for our progress is due to our previous Dean, Thomas Emodi, without whose foresight and drive our present circumstances would not have been possible. At the same time, one can't say enough about the remarkable forbearance of our students, staff and faculty, whose willingness to accept stuffy, drafty, over-crowded and inconvenient circumstances is almost boundless. More remarkable still is the fact that despite everything those same 'award-winning' colleagues continue to be as hard-working and productive as they've always been. "

The recent 'Self-Study' document summarized Dean Wanzel's strategy during his Deanship, which was to carefully see through several initiatives that were begun by the former Dean. Under the guidance of Dean Wanzel, the Faculty managed to successfully execute several plans that were outlined in our last *APR* and in other university documents, including the development and implementation of The Gambia program at GTTI, significant renovations to the building, renewing the basic collections of the Sexton Library, implementing the revised professional degree programme, further establishing exchange programs, addressing our digital media facilities with a new CNC lab - and a new Instructor's position, and developing curriculum towards integration of manual and digital media. Each of these projects reiterated the importance of the School of Architecture's Mission Statement, as summarized in the 'Self-Study':

"Our programmes are accredited to train professional architects and planners. And as good as we are at it, we're not complacent. We've worked very hard to attain and retain our accreditations, and to maintain our reputations as Schools due serious consideration. Being a professional School is in itself a worthy vocation. "

This last sentence continues to guide the School of Architecture. In addition to what we have accomplished, the 'Self-Study' also raised the question of what 'Strategic Opportunities and Challenges' were available to the Faculty in order to guide our next years of development under a new Dean. In this light, the Dean's proposal to embark on a School of Landscape Architecture offering a professional programme has sound logic, in part due to the fact that there is no such programme in Atlantic Canada. Again, an excerpt from the 'Self-Study' report (2007) stated:

"This strategy would allow the School of Architecture to build upon its existing strengths; it would also allow us to more fully formulate projects in architecture, settlement pattern, and ecology that would certainly develop and expand our existing expertise in sustainability. It would fit with many of our faculty's interests and expertise – in both Planning and Architecture – and it would enable us to form interdisciplinary connections within Dalhousie and indeed within the larger region of the Maritimes. "

The challenges and opportunities outlined in the 'Self-Study' began to crystallize into a plan of action regarding the expansion of facilities for the two Schools, fund-raising initiatives, and possible curriculum refinement and crossing of areas of expertise within the context of the wider university and also possibly within the two Schools. The Dean's proposal led the two Schools to discuss shared interests between architecture and planning. It also opened up the possibility of moving the School of Planning into an adjacent building, which would allow their School to grow and our School to occupy the entire Ralph Medjuck Building. The renovated Mining Building, intended to house the School of Planning, would ideally have some shared facilities (i.e. exhibition space, auditorium, library, etc.).

From the School of Architecture's perspective, the 'Self-Study' focussed on the following strategic and academic planning priorities:

- Implementing and staffing the revised professional degree programme in Architecture
- Refining the curriculum and co-operative programme
- Further clarifying the meaning of design education through adding a fourth pre-BEDS course in drawing
- Supporting and augmenting faculty research
- Securing facilities and resources to allow the professional programme and faculty to thrive and grow

Future Strategic and Academic Planning

The School of Architecture did not intend to have an official strategic plan come out of the Senate Review "Self-Study." However, the items listed above are all priorities to ensure our next phase of growth and development. Framed another way, 'sustainability' - both in financial and physical terms - is one of the themes that we share with the University and its initiatives as a whole.

The focus of the School of Architecture's current strategy is to continue cultivating

what we do well. This includes the professional education of architects, the development of design-build work through Free Labs, and maintaining design as our central activity in the design studio, graduate community work, and thesis work. With our revised programme now in place, the School of Architecture's main academic planning is focussed on fine-tuning the BEDS and MArch curriculum. This will involve integrating our new digital machines, expanding new positions in the area of digital design teaching, and developing ways in which digital representation will be further integrated with the architecture curriculum. The revised programme has allowed the School to focus more closely on aligning faculty interests and research with graduate studio and course work. This is an ongoing process.

Second, the Opportunities and Challenges section of the "Self-Study" led to a discussion regarding our faculty's expansion into other buildings on Sexton Campus. Both Schools remain highly aware of the increasing lack of space over the years; however, our faculty strategy now has in place a plan of action for moving the School of Planning into the current Mining Building (Murray Bldg.). The Senate 'Self-Study' also initiated the interest and support of the Senior Academic Administration in renovating one building and designing a new 'Integrated Learning Centre' that would be shared between the Faculty of Engineering and our own Faculty. During the past eight months we have been investigating how this facility would be designed, how it would affect the discipline of Engineering, and how each of our curricula: Engineering, Architecture, and Planning may find points of intersection in their teaching. One common denominator is how we teach design and collaborate with other disciplines. Although our plan for new and expanded facilities is clearly supported, much of our energy as a Faculty and as a School will be spent on programming this expansion, funding the initiative, and finding common courses that may be shared in the 'Integrated Learning Centre.'

Thirdly, we are actively considering the potential roles of both our Faculty and the School in the new Dalhousie College of Sustainability that intends to launch its undergraduate program in September 2009. One of our faculty is the Interim Director for the College's graduate program and several of our faculty will likely contribute to this initiative. However, this will require further support from the university - both financial and human resources - due to our small number of faculty.

In principle, both the College of Sustainability, and a new tri-faculty facility pose wonderful opportunities for the School to contribute to design education, sustainability, and collaboration. As a result, both planning and architecture schools are discussing the addition of a Landscape Program as a potential 'link' between our two professions that may further contribute to a comprehensive view of design and ecology involving architecture, engineering, landscape design and planning.

All of these initiatives remain to be developed over the next two to five years. While this promises to be an exciting time of growth and consolidation for the Faculty, the main challenge for the School of Architecture will be to maintain the focus of its professional program while participating in these related ventures. Space, financial resources, human resources (i.e. more faculty), and shared curriculum development are among our top strategic planning priorities during the next three to five years.

Appendix B: The Visiting Team

CHAIR Rick Haldenby Educator

O'Donovan Director

Waterloo Architecture Cambridge

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Faculty of Environmental Design

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INTERN/STUDENT

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Gagnon Letellier Cyr Richard Mathieu architects

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Guy Préfontaine Practitioner

Principal

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SCHOOL OBSERVER

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Fax 902.422-8685

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Appendix C: The Visit Agenda

SATURDAY 7 FEBRUARY 2009

- PM Team arrival and check-in
Lord Nelson Hotel - 1515 South Park Street,
corner South Park / Spring Garden Road, ph 423-6331 fx 423-7148
- 5 pm Team introductions and orientation, Rick Haldenby, Team
• Lord Nelson Hotel
- 7:30 pm Dinner for all Team members, Dean Christine Macy and Director
Terrance Galvin at *Saege Bistro* 5883 Spring Garden Road

SUNDAY 8 FEBRUARY 2009

- AM 7:30 am Team only breakfast
Lord Nelson Hotel
APR review and assembly of issues and questions
- 9:00-10:00 am Overview of the team room by program head, Director Terrance
Galvin and Stephen Parcell
Discussion with Director Terrance Galvin
Team initial review of exhibits and records
- 12:30-2 pm Team lunch with program administrators: Stephen Parcell, Brian
Lilley, Richard Kroeker and Grant Wanzel
• *Argyle Bar and Grill* 1575 Argyle Street
- PM 2 pm Tour of the facilities: Emanuel Jannasch, Patrick Kelly, Stephen
Parcell, Terrance Galvin
- 3-5 pm Entrance meeting with all School of Architecture Faculty members
Team continued review of exhibitions and records
- 7 pm Team only dinner
- 8:30-11 pm Review of material in Team Room

MONDAY 9 FEBRUARY 2009

- AM 7:30 am Team breakfast with the program head, Director Terrance Galvin
- AM 9 am Meeting with V.P. Academic and Provost, Dr. Alan Shaver
• Exhibition Room, School of Architecture
- 10 am Tour of the Sexton Library, with Librarian Helen Powell
- 11:30-12:30 pm Meeting with Dean Christine Macy
• Dean's Office, School of Architecture
- 12:30 pm Continued review of exhibits and records
- 1 pm Lunch with faculty members Brian MacKay-Lyons, Niall Savage,

Sarah Bonnemaïson and Brian Lilley

• *Opa Restaurant* 1565 Argyle Street

- PM 2 pm Observations of design studios (in session)
Continued review of exhibits and records
- 3 pm School-wide entrance meeting with all architecture students
- 5-6:30 Reception with faculty, staff, administrators, alumni, and local practitioners
- 7 pm Team only dinner
 • *Il Mercato Restaurant* 5650 Spring Garden Road
- 9 pm Continued review of exhibits and records

TUESDAY 10 FEBRUARY 2009

- AM 7:30 am Team breakfast with the program head Director Terrance Galvin
 • Lord Nelson Hotel
- 9:00 – 12:30 am Review of material in Team Room. Drafting of components of the VTR
- 12:30-2:30 pm Team lunch with student representatives
 ASA President Jason Pooley, Mindy Gudzinski, Adam Pelissero, Eleanor Hopkins, Devin McCarthy, Sarah Carlisle, Alexandra Gaudreau
 • *Henry House* 1222 Barrington Street "
- PM 2:30-7 pm Complete review of exhibits and records, final session
- 7 pm Team only dinner
 Talay Thai Restaurant 1261 Barrington Street
- 9:00 – 11:00 Team review of the conditions and criteria, drafting of VTR

WEDNESDAY 11 FEBRUARY 2009

- AM 7:30 am Team breakfast with the program head Director Terrance Galvin
 • Lord Nelson Hotel
- 8:30 am Hotel check out
- 9-9:30 am Exit meeting with the chief academic officer, Dalhousie U President, Dr. Tom Traves
 President's office, Room 108, Henry Hicks Academic Adm Bld, 6299 South Street
- 9:30:10 am Exit meeting with the chief academic officer, Dalhousie U VP Academic and Provost, Dr. Alan Shaver
 • Vice President's office, Room 108, Henry Hicks Academic Adm Bld, 6299 South Street

10:30-11:30 am Exit meeting with Dean Christine Macy

PM 12 pm Team Lunch

12:30 pm School-wide exit meeting with faculty and students

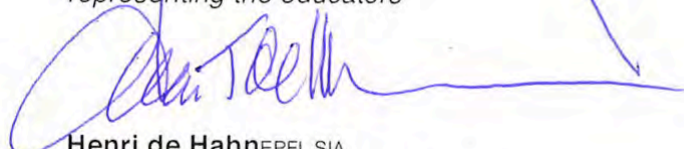
V. Report Signatures



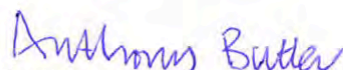
Rick Haldenby FRAIC
representing the educators
Team Chair



Graham Livesey, AAA
representing the educators



Henri de HahnEPFL, SIA
representing the educators.NAAB



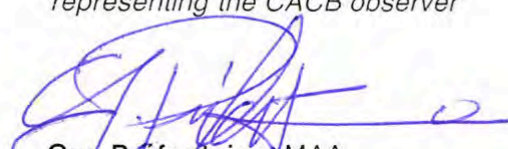
Anthony Butler FRAIC
representing practitioners



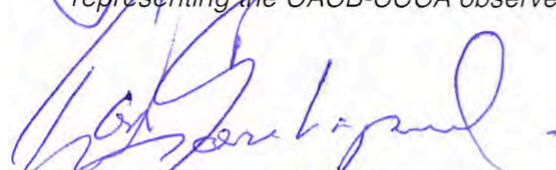
Olivier Vallerand,
representing the Interns



Gordon Richards, MAIBC, MRAIC
representing the CACB observer



Guy Préfontaine, MAA
representing the CACB-CCCA observer



Dan Goodspeed, NSAA
representing the Dalhousie University observer

4.6 Annual Reports To the CACB Since 2008

4.6.1 Annual Report to CACB (2008–09)



30 June 2009

Mr. Mourad Mohand-Said
Executive Director/Registrar
Canadian Architectural Certification Board
1 Nicholas Street, Suite 1508
Ottawa, Ontario,
K1N 7B7

Dear Mourad,

I am today submitting Dalhousie's 2008-09 *Annual Report* to the CACB. This year, since the Dalhousie School of Architecture had its major accreditation visit, I am submitting the statistics reports only, and would refer you to our *APR* for an accurate narrative report. In addition to this covering letter, I trust that the following list of attachments (PDF) is correct:

1. Human Resources Statistics Report;
2. Attachment A;
3. Attachment B;
4. Dal CACB Faculty Stats.

Finally, I am very pleased to receive the news from the CACB of our full six-year accreditation results. I hope that our joint work as a School, and as a member of the CCUSA, continues to be productive for both architectural education and practice. I also commend the CACB for enabling graduates of Canadian Schools of Architecture to now receive their CACB registration number; this is another step in the right direction.

Please feel free to contact me on my cell phone (514) 209-6223 if any additional information or clarification is required. You may also reach Susanna Morash-Kent directly at (902) 494-3971 or Beverly Nightingale at 3973.

Sincerely,

Terrance Galvin, Ph.D., MRAIC
Director,
School of Architecture
terrance.galvin@dal.ca

CANADIAN ARCHITECTURAL CERTIFICATION BOARD
ANNUAL REPORT, YEAR 2008/2009
DALHOUSIE UNIVERSITY, SCHOOL OF ARCHITECTURE

HUMAN RESOURCES STATISTICS REPORT (AR)

For the period April 2008 to March 2009

	Pre-prof undergrad (BEDS)	Prof. MArch	Post-prof. MArch
STUDENT DATA (All figures are for the most populous of 3 terms)			(dormant)
Full-time Students	123	97	0
Men	67	58	0
Women	56	39	0
Architecture design studio students	123	59	0
Outside students served by School (FTE*)	26.2	0	0
(*Each non-BEDS student is counted as 1/5 of a FTE.)			
TOTAL FTE STUDENTS	149.2	97	0
Foreign Students	8	13	0
Total degrees awarded	52	27	0
Men	27	18	0
Women	25	9	0
Number of Applicants			
Number enrolled at beginning of program	63	45	0
Number admitted with advanced standing	2	0	0
Retention	BEDS	MArch	
Degrees awarded/No. of Students in initial year**	52/63	27/45	
**(BEDS initial year is 2004. MArch initial year is 2006)	82.5%	60%	

SMK
24 June 2009

CANADIAN ARCHITECTURAL CERTIFICATION BOARD
ANNUAL REPORT, YEAR 2008/2009
DALHOUSIE UNIVERSITY, SCHOOL OF ARCHITECTURE

HUMAN RESOURCES STATISTICS REPORT (AR)

For the period April 2008 to March 2009

	Pre-prof (B.E.D.)	B.Arch Prof	M.Arch Prof.	M.Arch Post-Prof.
Student Data (refer to Attachment A)		n/a		(dormant)
Full-time students	123		97	0
men	67		58	0
women	56		39	0
FTE Students (total)	148		97	0
Architecture design studio students	123		59	0
Outside students served by the school (number/total FTE)	131		0	0
Foreign students	8		13	0
Total degrees awarded	52		27	0
men	27		18	0
women	25		9	0
Number of applicants	197		62	0
Number enrolled	67		44	0
Number enrolled with advanced standing	3		--	--

Resource Data

School Total

Externally generated funds (non-research)	\$760,061
Income generated by research	\$112,975
Faculty Total Budget 2008-09	\$3,910,815
Faculty Central Units Budget 2008-09	\$925,209
School of Architecture Budget 2008-09	\$1,979,649
School of Planning Budget 2008-09	\$1,005,957

SMK, EG
25 June 2009

CANADIAN ARCHITECTURAL CERTIFICATION BOARD																								
HUMAN RESOURCES STATISTICS REPORT (AR)																								
ANNUAL REPORT, YEAR 2008/2009																								
DALHOUSIE UNIVERSITY SCHOOL OF ARCHITECTURE																								
ATTACHMENT A																								
page 1 of 1																								
2008/09 student statistics for Dalhousie School of Architecture (April 2008 to March 2009)																								
Summer 2007/08							Fall 2008/2009									Winter 2008/2009								
a	b	c	d	e	f	g	h	j	k	l	m	n	o	p	q	q	r	s	t	u	v	w	x	

2008-09 faculty and staff statistics for Dalhousie University School of Architecture (01 April 2008 to 31 March 2009)																		
#	FTE	FTE/term (studio terms in bold)			TENURED OR TENURE-TRACK FACULTY	Full	Associate	Assistant	Lecturer	PhD	DArch	MArch PP	MArch	BArch	other bach.	other mast.	Registered	Notes
		S	F	W														
1	1.00		0.67	0.67	Sarah Bonnemaïson		1			1								33% teaching release for research
1	1.00			1.00	Ted Cavanagh	1				1								leave without pay: summer, fall
1	1.00	1.00	1.00		Terrance Galvin		1			1								
1	0.50	0.30	0.30	0.30	Emanuel Jannasch				1				1					appointed Instructor, 1 July 2008
1	0.30		0.30	0.30	Patrick Kelly				1							1		
1	1.00	1.00		1.00	Richard Kroeker	1								1				degree: AA Dipl.
1	1.00	0.15	1.00		Brian Lilley		1							1			1	degree: AA Dipl.
1	0.50		0.15	0.50	Brian MacKay-Lyons	1						1						1
1	1.00		1.00	1.00	Christine Macy	1						1					1	appointed Dean of Faculty, 1 Sept. 2008
1	1.00	1.00		1.00	Steven Mannell	1								1			1	
1	1.00	1.00		1.00	Susan Molesky		1					1						
1	1.00	1.00		1.00	Roger Mullin			1					1					
1	1.00		1.00	1.00	Stephen Parcell		1			1								
1	0.50	0.30	0.30		Austin Parsons			1								1		
1	0.00				Peter Sassenroth		1							1			1	resigned 1 Sept. 2008
1	0.50		0.50	0.50	Niall Savage		1						1				1	
1	1.00		1.00		Catherine Venart			1					1				1	sabbatical leave: winter
1	1.00				Grant Wanzel	1						1						administrative leave: fall, winter
18	14.30	5.75	7.22	9.27	FTE/term: tenured/ tenure-track faculty	6	7	3	2	4	0	4	4	4	0	2	7	
		S	F	W	PART-TIME INSTRUCTORS													
1				0.30	Jane Abbott								1					
1		0.15			Christopher Bowes								1					
1				0.15	Trevor Butler											1		
1			0.30		George Cotaras									1			1	
1		0.30	0.15		Susan Fitzgerald								1				1	
1		0.15			Bill Gastmeier											1		
1			0.30		Danny Goodz									1			1	
1		0.25	0.25	0.25	Peter Henry									1			1	
1			0.30		Rayleen Hill								1					
1				0.15	Lloyd Hunt									1			1	
1		0.30			Chad Jamieson								1				1	
1		0.15	0.15	0.15	Ken Kam										1			
1			0.15	0.15	Leon Katsepontes								1					
1				0.15	Ramzi Kavar								1				1	
1			0.30		Karen Lips											1		
1			0.50	0.15	Abigail MacEachern								1				1	
1			0.15		Richard Mueller											1		
1		0.15			Benjie Nycum								1				1	
1		0.30	0.30		Eugene Pieczonka								1				1	
1			0.15	0.15	Douglas Pitcairn										1			
1			0.30		Kevin Reid								1				1	
1		0.15	0.50	0.30	Craig Rodmore											1		
1			0.15		Keith Robertson								1				1	
1		0.50		0.30	Talbot Sweetapple								1				1	
1				0.30	Jim Sykes										1			
1				0.30	Stephen Terauds								1					
1		0.30	0.15		Kim Thompson													
1			0.15	0.15	Lisa Tondino								1					
1			0.30	0.30	Vincent van den Brink								1					
1				0.15	Paul Westbrook										1			
30		2.70	4.55	3.40	FTE/term: part-time					0	0	0	16	5	3	5	13	
48		8.45	11.77	12.67	FTE/term: tenured, tenure-track, part-time					4	0	4	20	9	3	7	20	
					ADJUNCT FACULTY (External and thesis examiners)													
1	n/a				Trevor Butler											1		
1	n/a				Lily Chi					1								
1	n/a				Deborah Gans								1					
1	n/a				Peter Lynch									1				
1	n/a				Jacques Rousseau									1			1	
1	n/a				Natalija Subotincic							1						
1	n/a				Leslie van Duzer								1					
7	n/a				TOTAL: adjunct					1	0	1	2	2	0	1	1	
					STAFF													
1	1.00				Dale Arsenaull													
1	1.00				Martha Barnstead										1			
1	1.00				Paula Costello									1				
1	1.00				Ron Fritz											1		
1	1.00				Eric Guile										1			
0	0.50				Emanuel Jannasch								1					
1	1.00				Ken Kam										1			
1	1.00				Susanna Morash-Kent											1		
1	1.00				Beverly Nightingale												1	
1	1.00				Douglas Pitcairn										1			
1	1.00				Anita Regan											1		
1	0.50				Anne Swan											1		
1	1.00				Donald Westin										1			
12	12.00				TOTAL: staff permanent/contract					0	0	0	1	1	5	4	0	
60			Total															Dalhousie University, School of Architecture / 30 June 2009

4.6.2 Annual Report to CACB (2009–10)

Dalhousie University – School of Architecture

Annual Report to the Canadian Architectural Certification Board (CACB) 2009/2010
revised November 2010

1

Introduction

The School of Architecture at Dalhousie University has an established presence at the university, in the city of Halifax, and in the world, due to the impact of the faculty, employers, students and alumni. This CACB ‘Annual Report’ describes the status of the School of Architecture in the Faculty of Architecture and Planning as of 30 June 2010. Section 1 of the following report will reinforce strengths of the School or address any new issues. Comments regarding the most recent Winter 2009 CACB Visiting Team Report are included in Section 2.

Section 1 –Notes

Faculty of Architecture and Planning

The Dalhousie School of Architecture is located on the Sexton Campus, which is the downtown campus of Dalhousie University that formerly constituted the Technical University of Nova Scotia. *We share this campus with the Faculty of Engineering and we continue in our efforts to make an impact on our environment.*

Anne Swan, a recent addition to our staff in 2009 and our alumni officer for the Schools of Planning and Architecture, is contributing to our efforts to open the lines of communication with our alumni and to spearhead alumni giving on a larger scale. We are continuing to work on scheduled planned events with other university departments, and in conjunction with events in the city, such as the Parade of Lights and to celebrate our alumni in many different ways. The Dean is working closely with Anne on these initiatives. Our Faculty newsletter also has a new look and is scheduled to be produced twice a year.

Because of its location, and in our continued efforts to keep our building secure and its occupants safe, the alarmed entry to the Ralph Medjuck building using the keyless (job) system is being phased into a computer chip in the Dalhousie student card, allowing universal access, and a quicker deactivating process when a person is no longer associated with the university.

School of Architecture

Programme (BEDS/MArch)

The School of Architecture has split the thesis class in recent years, with students being given the option to begin thesis preparations in Fall after returning from their co-op work term, or extend their work term and return to studies in Winter. In the interest of creating a more unified thesis class and a more consistent set of course offerings, we will return to a single point of entry into thesis in Fall term, starting September 2011. Unifying this cohort will improve class cohesion and enable us to use our resources more effectively.

BCBD Programme in the Gambia

The Winter term 2009/2010 saw the completion of Dalhousie's first graduates in a new program initiated by the joint efforts of Dalhousie and colleagues in The Gambia. The commencement ceremony took place in the Gambia with the University of the Gambia ceremonies in June, the students receiving a Bachelor of Community Design and Building from Dalhousie University. The objective of the new BCBD program is to educate Gambians in the fields of planning, design and construction, to enhance the scholarly profile of these disciplines in the country, and to contribute to national development in The Gambia. This project has been managed by Grant Wanžel. Since 2007, a number of our faculty have visited the Gambia to run modules and advise on development and administration of the program. Future graduating classes will receive University of the Gambia degrees. The School of Architecture at Dalhousie will continue to serve as consultants over the next few years.

Exchange Programs

The School of Architecture has two active exchange agreements in Europe, with the Peter Behrens School of Architecture in Dusseldorf, Germany and the University of Strathclyde in Scotland. Dalhousie Architecture students are on exchange this Fall 2010, and we will be accepting students from Scotland at Dalhousie in Winter 2011.

Faculty Teaching and Research

The School of Architecture is unique at Dalhousie for its intensive trimester program. Without a summer term to regroup, this places pressure on faculty and staff. The Acting Director of the School is now working on a strategic argument to the university regarding a need for more faculty and financial support. Despite the substantial teaching load, the faculty continue to be leaders in teaching and design research and to assist in graduating outstanding students from the professional program. The focus of the professional degree program (BEDS+ MArch) is design teaching in which faculty members teach design and a specialty in one of three other teaching streams (Technology, Humanities and Professional Practice). One of the three terms is a research term in accordance with the University Collective Agreement which lists teaching, administration and research as faculty responsibilities. The following is an update on the faculty for 2009/2010:

The Architecture Director, Dr. Terrance Galvin, began his sabbatical on January 1, 2010. The current Acting Director is Professor Richard Kroeker, whose duties began January 1, 2010 and will continue until January 1, 2011.

The School of Architecture is re-advertising for a tenure track position in design and technology teaching.

In 2007, **Sarah Bonnemaison** was awarded a three-year \$1.4 million Research and Development grant from the Atlantic Innovation Fund for her project *Architectural Applications of Electronic Textiles*. Since then, she has been directing the @Lab (Architextiles Lab) with Prof. Robin Muller from NSCAD. Current projects of the @Lab include window screens, a massage enclosure, a theatre set, and warming hut for the Canada Winter Games. All are responsive environments, integrating electronics and textiles in architecture. Recent books include *Responsive Textile Environments* (TUNS Press / Riverside Architectural Press,

2007) and *Festival Architecture* (Routledge, 2008), both with Christine Macy; and *Installations by Architects* (Princeton Architectural Press, 2009) with Ronit Eisenbach. This last book is also the subject of a touring exhibit of the same name, launched at Dalhousie last Fall and currently touring North America, with stops at the University of Texas, Laval, Parsons, University of Oregon, RISD, and McGill, before continuing to European venues in Graz, Austria and Oslo, Norway.

Ted Cavanagh completed the final year of his SSHRC Research/Creation Grant, “Architectural Explorations: installing an Acadian theatre camp” in 2009. This grant supported Coastal Studio in 2009 and 2010, including design/build projects on the Cabot Trail in Cheticamp that involved turning wind into light, and at Ross Creek Centre for the Arts – an outdoor wood lamella dining shelter for 80. Recent publications include "Diverse designing: Sorting out Function and Intention in Artifacts," in *Philosophy and Design: From Engineering to Architecture* (Springer, 2008), and "Oliver Smith, Frontier Architect" in *American Architects and their Books, 1840-1915* (U Mass Press, 2007). He is chairing an accreditation visit to Université de Montréal and working with Canada Council on the new framework for Canada's participation in the Venice Biennale.

Terrance Galvin, Director of the School of Architecture, has led the School's participation in the NAFTA exchange program *North American Sustainability, Housing and Community Consortium*, funded by the Humanities Research and Skills Development Canada. Partner schools include McGill in Canada, Monterrey and UNAM in Mexico, and Ball State and the University of Texas at Austin in the USA. He contributed articles to *Canadian Architect* and in 2008, received a Teaching Award of Excellence from the Dalhousie Student Union. *In 2009/2010 he was asked to serve on the Board of Directors of the Canadian Architectural Certification Board where he intends, among other things, to continue collaborating on refining the process of accreditation for Canadian Schools.* In fall 2010, he indicated his intention to resign his position in the School as of the end of 2010, to settle in Montreal to raise new twins.

In January 2010 **Dr. Roly Hudson** was appointed to teach in the design and technology streams. *His PhD thesis involved the development of parametric design processes and customized tools for projects in the UK, including Lansdowne Road Rugby Stadium in Dublin, with architects Populous and structural engineers Buro Happold. His original approach to parametric modeling employs a shared model to facilitate concept development, detailed structural and cladding design, and the delivery of manufacturing information to contractors. On his recent trip to the UK, Roly met with Populous and Foster Wilson Architects in London, whose large portfolio of stadiums and theatres will form a database for a research project on the development of metrics for evaluating audience experience. He was invited to contribute an article, on the use of parametric design to develop and capture knowledge, to Ebituskunst (an Estonian architectural journal).*

Emanuel Jannasch was recently appointed instructor in Digital and Manual Fabrication in the School of Architecture. *He comes to the school with a background in technology and film studies. His interest is in the post-industrial future of building and how new technologies can recapture some of the depth of knowledge lost to industrialization. His research concentrates on the culture of wood in engineering, architecture and construction adding to what he offers to the Building Technology courses in the program.*

Richard Kroeker's Pictou Landing Health Centre (with colleagues Brian Lilley and Peter Henry) was a finalist in the Health Care category of the World Architecture Awards, at the World Festival of Architecture in Barcelona. In 2010, the project won the International Architecture Award, given jointly by the Chicago Athenaeum and the European Centre for Architecture Art Design and Urban Studies. Other recent projects include a powwow arbour in Kinistin, Saskatchewan (with Saulteaux First Nation and the Cities and Environment Unit); a warming hut on Winnipeg's Assiniboine River (with NSCAD artist Neil Forrest); design and fundraising for Boikhutsong Hospice in Botswana, for victims of HIV and their families (with alumnus Xeti Matebekwane); and the design of a house for a prairie village of Elm Creek in Manitoba. His work was featured in the travelling exhibition *Penser Tout Haut (Making of Architecture)*, curated by Austrian critic Elke Krasny, which opened at UQAM in 2009, and in *A Question of Place*, at Harbourfront Centre in Toronto. In 2010, Richard's lecture and workshop schedule includes trips to Carnegie Mellon, University of Graz in Austria, the University of Illinois, SUNY Buffalo, and the University of Manitoba.

Patrick Kelly lecturer, teaches *Archaeoastronomy* as a graduate elective. He is finishing a five-year term as editor of the Royal Astronomical Society of Canada's *Observer's Handbook*; and as Annapolis Valley area coordinator for the *Maritime Breeding Bird Atlas*, and two years as president of the Nova Scotia Bird Society.

Brian MacKay-Lyons maintains a busy architectural practice alongside his teaching. Recent projects include the just-completed Canadian Chancery in Dhaka, Bangladesh; a master plan for a ski resort at Charlevoix, Quebec (for Daniel Gauthier, co-founder of Cirque de Soleil); and an invited competition for the design of six cottages at Frank Lloyd Wright's Fallingwater House. Other new projects include the Law School at the University of Ottawa, the Kentville Public Library, the School of Nursing at UPEI, Cliff House 12, and an expansion for the Beaverbrook Art Gallery in Fredericton, NB. He won the North American Wood Design Award in 2009. In 2008, *Ghost: Building an Architectural Vision* was published by Princeton Architectural Press, chronicling nine years of the Ghost Architectural Laboratory. A film by Soo Kim on Ghost 12 will be featured at the Architecture and Design Film Festival at the Tribeca Cinemas in New York *Fall 2010*. A fourth monograph on the office, written by Robert McCarter, is underway. His lecture schedule in 2009-10 has taken him to California, Vermont, Oklahoma, Maine, Massachusetts, Mississippi, Puerto Rico, Quebec City, Toronto and the AIA Arkansas State Convention; and he has served on juries for AIA chapters in New York and Minnesota.

Christine Macy is currently serving as the Dean of the Faculty of Architecture and Planning. Books completed during her sabbatical in 2007 include *Responsive Textile Environments* (TUNS Press / Riverside Architectural Press, 2007) and *Festival Architecture* (Routledge, 2008), both with Sarah Bonnemaison, and *Dams* (W.W. Norton, 2009). She also contributed chapters to Philip Beesley's monograph *Hylozoic Soil* (Riverside Architectural Press, 2007); Brian MacKay-Lyons' *Ghost* (Princeton Architectural Press, 2008); and *The Tennessee Valley Authority: Design and Persuasion* (Princeton Architectural Press, 2007). Her research on the American planner Benton MacKaye (carried out with a fellowship at the Canadian Centre for Architecture in 2008), entitled "Flows as Agents of Transformation: From Wastelands to Wonderlands", was presented at the *Fehn-Symposium* in Norway and the

Landscape, Housing, Orientation Conference in Bremen, Germany. It will be published in German in *Landschaft, Gebäude Orientierung*, eds. I.Nierhaus, J.Hoehnes, A.Urban (Berlin: Reimer Verlag, 2010), and an English version is forthcoming in 2010, by the *Roads, Routes and Landscapes* project of the Institute for Form, Theory and History at the Architecture and Design School in Oslo (AHO). Recent design projects from her firm Filum Ltd. (with Sarah Bonnemaison) are the Black Loyalist Heritage Centre in Birchtown (with Peter Henry Architects) and the Bamboo Pavilion in the new city of Sansia, Taiwan. In 2008, she served on juries for 20+ Change awards in Toronto, *Canadian Architect's* Awards of Excellence, and Canada Council's Architecture Grants Program and the Prix de Rome.

In 2009, **Steven Mannell** assumed the Directorship of Dalhousie's University's new College of Sustainability, operated in collaboration with five university faculties. After more than a year setting up a new ground-breaking program called Environment, Sustainability and Society, it was successfully launched in Fall 2009. Outreach activities included participation in UNESCO's World Conference on Education for Sustainable Development in Bonn, Germany, where the College was recognized as one of "25 World Good Practices in Education for Sustainable Development"; and a podcast "Making change happen: University leadership for our sustainable future" as part of *Intellectual Muscle: University Dialogues for the 2010 Olympic & Paralympic Games*. In 2010, Steve co-chaired *Traditions of Ingenuity* in Lunenburg, the annual conference of the Society for Study of Architecture in Canada. His article "A civic vision for water supply: the Toronto Water Works Extension" appeared in *HTO: Toronto's water from Lake Iroquois to Lost Rivers to Low Flow Toilets*, eds. W.Reeves and C.Palassio (Toronto: Coach House, 2008).

Susan Molesky was on a one-year sick leave from 2009-10. On return, she collaborated with colleague Catherine Venart in an entry for the annual *Jardins de Métis* Competition in Québec.

Roger Mullin was one of six early-career Canadian architects selected to participate in *The Architectural Roadshow*, a nine-day cross-country event of travel, lecture and exhibition (organized by Marc Boutin and funded by the Canada Council). He was nominated for the ACSA/AIAS New Faculty Teaching Award and profiled in "Promising Young Architects, Making Their Mark", *National Building News Magazine*. Since 2007, he has focused his Free Lab design-build projects on the ship-building community of Spencer's Island, NS. Projects include an outdoor cinema; an interdisciplinary arts centre with classroom, gallery and market; a stage and, most recently, accommodations for an artist-in-residence.

Steve Parcell recently completed a PhD in architectural history and theory at McGill University, supported by a one-year residency at the Canadian Centre for Architecture in Montreal. The dissertation was entitled "Four Historical Definitions of Architecture." He also co-edited the fifth volume of *Chora: Intervals in the Philosophy of Architecture*, a series published by McGill-Queen's University Press.

In 2009, **Austin Parsons** traveled to The Gambia with alumnus Patrick Jardine to work with colleagues in the Bachelor of Community Building and Design (BCBD) program. The

outcome was a publication about the program, incorporating student research and design work of the past three years.

Niall Savage's affordable housing projects — Harbour City, Metro I and II, Creightons, and Gottingen Terrace — carried out for the Creighton Gerrish Housing Association were featured as the cover story of *Canadian Architect* in July 2009.

Catherine Venart continued her long-standing collaboration with Molestina Architects in Cologne, Germany, contributing to a first place entry for urban- and open space-planning for the Ruhr University-Bochum (with FSWLA Landscape Architects), and further work on an ideas competition entitled *Hannover City 2020*. She worked with graduate students on an ideas competition for the Champs-de-Mars metro station in Montréal. In 2009, Catherine presented her paper "Spatial Practice: Experiential Documentation and Analysis as Methodology" at the 6th International Architectural Humanities Research Association Conference in Edinburgh, Scotland; and is in the process of completing a book featuring the work of German architect Wilhelm Riphahn.

Grant Wanzel continues his work in affordable housing as president of the Creighton/Gerrish Development Association. This not-for-profit association is currently developing Gottingen Terrace, a 48-unit condominium complex. He has also been managing the Gambia Project, funded by the Canadian International Development Agency. This is now a Dalhousie degree-granting program run by Dalhousie graduates Bertha Johnson (MEDS'06), Isidore Jatta (BEDS'06) and Rohey Jobe (BEDS'06). In 2009, Grant returned to full time teaching, and in 2010 he retired and was appointed Professor Emeritus. He now teaches housing design, history and theory part-time, and will be offering a new graduate elective in real estate development in 2011.

II Detailed Progress Report 2009/2010

CACB – Dalhousie University 2009 Visiting Team Report – (February 2009)

The following section addresses ongoing progress of the professional programme relating directly to the ‘causes of concern’ raised by the CACB Visiting Team in 2009. Many of the concerns are being addressed, some immediately and some over a longer period of time. The School continues to encourage and build on the strengths which were also outlined in the report.

II. SUMMARY OF TEAM FINDINGS

2. Causes of Concern

1. The visiting team was struck by a unified teaching approach that favors analog over digital methods of representation, communication and experimentation. The team acknowledges this approach, and is aware of the recent addition of digital fabrication capacity and the fact that the school remains open to a variety of representational techniques. Still, the team must voice its strong concern over the relative lack of the application and exploration of digital techniques in the curriculum and in the student work displayed.....

The School of Architecture continues to develop its relationship between craft, which is valued and a deep part of the culture of the place, and digital media, which it recognizes as an important design tool in contemporary architectural practice and an essential skill expected by architectural employers. Our approach to the integration of digital design tools and methodology into the teaching and research of the School is three fold:

- **In teaching.** Our recent appointment in Design and Technology, Dr. Roland Hudson, brings expertise in parametric design to the School. He teaches undergraduate design and technology courses, and his graduate electives in parametric design employs Grasshopper, a generative modeling software that works with Rhino, the School’s chosen software for communicating with the CNC router and 3-D printer. In Summer 2010, Dr. Hudson worked with Emanuel Jannasch, a newly appointed Instructor in Digital and Manual Fabrication, delivering a Free Lab that integrated digital drivers into shop machines.
- **In research.** Since 2007, Dr. Sarah Bonnemaison has been directing the Architextiles Lab (@Lab, an interdisciplinary and specialized research group in collaboration with the Faculty of Engineering and the Nova Scotia College of Art and Design), that specializes in the design and development of electronic textiles in architectural applications. This research area in responsive environments builds on the School’s strong humanist foundation and focus on user experience. The @Lab employs graduate architecture students in a collaborative working environment, along with engineering and art students.

Two other computer-oriented research initiatives are underway in the Faculty, projected to be CFI applications in early 2011. In the School of Planning, this is a transportation modeling lab. In the School of Architecture, this will be a digital modeling and prototyping lab focused on building components, under the direction of Dr. Hudson

and Instructor Jannasch. If successful, both of these projects will significantly enhance the School's and Faculty's capabilities in digital modeling and prototyping; providing state-of-the-art equipment and a dedicated space allocation for these activities.

- **In facilities.** The Faculty workshops are undergoing rationalization of space, equipment, staffing and operating procedures to integrate digitally- and manually-operated equipment in all shops

(model shop, CNC lab, print shop, and GIS lab), and to increase hours of availability to students. Recent acquisitions and upgrades include a stereotomic printer, digital controls on power tools, enhanced printing capability in the studios, and multiple student workstations in the print shop. All classrooms are being upgraded with permanent digital projectors, to encourage digital projection during reviews, promote video and flythrough representations and reduce paper waste.

Shop rationalization is expected to continue as plans for Sexton Campus renewal progress, in particular with respect to the realization of greatly enhanced machining, manufacturing and prototyping facilities across the campus and shared with the Faculty of Engineering.

In response to student demand, this year's orientation for incoming BEDS students included focused workshops on the facilities and their capabilities, organized and delivered by the Architecture Student Association in collaboration with the newly appointed Instructor in Digital and Manual Fabrication. The goal was to introduce new students to digital and shop resources at the beginning of their studies. The ASA, faculty and staff will again offer workshops in January as the cohort progresses and new students enroll.

2. The team is not satisfied that the programme has dealt adequately with the deficiency in the area of comprehensive building design identified by the previous visiting team.

In the pre-thesis term, the School has created a Building Systems course in which students are asked to define and research a building system or detail that would be a direct consequence of their thesis question. This is a return to an approach that has been part of our past way of working at the thesis level that had been lost in recent years. It is intended to result in a more comprehensive resolution of thesis projects, with a clearer focus on architectural aspects of the thesis research.

At the graduate level, between one and two M.Arch. studios each term are structured as integrated studios, with all aspects of the studio project forming the basis of a comprehensive study. Students, in the context of work within existing communities, will take some of these to the level of detail and construction.

3. While there have been significant improvements to the space and facilities in the Faculty of Architecture and Planning building, the Team must point out that some areas remain inaccessible. The Design Studios are overcrowded. The provisions for graduate students in particular are inadequate. The school requires additional space for lectures, classes, reviews, exhibitions and informal meetings. In a programme dedicated to the process of making, it is clear that the shops and fabrication facilities

need to be expanded. And under Comments “For the Faculty of Architecture and Planning the key concern is to use the opportunity (plans for the Sexton Campus) to forge a stronger, more balanced and truly cross-disciplinary relationship between Planning, Architecture and Engineering.

- **Classrooms and exhibition space.** Dean Macy has had the three largest classrooms in the Medjuck Building re-designated as “common pool classrooms” — meaning they will be centrally booked and maintained. Architecture and Planning will keep priority for use. This will ensure that equipment and furniture are kept up-to-date, IT-current, and accessible, without relying on the Faculty operating funds. Rooms so designated now include the HA19 lecture hall and HA18 classroom on the ground floor, and classroom and exhibition spaces HB4 and HB2 on the first floor. In 2009, HB4 was upgraded with new stackable, rolling chairs with tablets, increasing its utility and reducing turn-around time between class times with varying configuration requirements.

Dalhousie’s Facilities Management has retained a consulting architect to redevelop schematic designs to upgrade lecture theatre HA19, reversing its direction to increased capacity and accessibility, and also to enable it to function as a exhibition room for reviews and crits. Funding estimates will follow completion of this work. Faculties Management also investigated the

enlargement of the Furry Room on the third floor, to provide universal access to that room and the adjacent studio tray. The engineering analysis proved feasibility, but completion of work will depend on the university’s allocation of its renovations and alterations budget. Currently, program expansion is limited by space available, particularly in the School of Planning. Real relief — in the form of dedicated facilities for the School of Planning — will rely on the success of the Faculty’s fund-raising efforts, connected with overall Sexton Campus renewal, and on the university’s priorities for strategic investment. The Dean continues to advocate in this regard.

- **Shops and support facilities.** Renewal of shops was addressed under Item 1, previous page, under “In facilities.”). On the main floor, office renovations are complete — providing high-quality office space, universal accessibility, and an attractive reception area for applicants and guests of the school. Studio washrooms have been made wheelchair accessible. The Resource Centre has been moved to a more central and accessible location, with the GIS office above it, keeping the resources together and making them easier to find.
- **Collaboration with Planning and Engineering.** In 2009, the University established a Sexton Campus Space Planning Committee, with representation from the university Vice-Presidents (Academic Administration, Finance, Student Services, Faculties Management, and Registrar) and the Sexton Campus Faculties (Architecture & Planning and Engineering). A comprehensive space audit of Sexton Campus (by ECS and Architects Alliance) is nearly complete.

Also in 2009, and operating in parallel with the physical planning of the campus, a *Design and Innovation Committee* was formed with a mandate from the VP Academic & Provost to look for specific ways to collaborate across all design disciplines, with a view to making design education and research innovation central to the activities of Sexton

Campus. The committee consisted of representatives from both Sexton Faculties and other Dal Faculties. A highlight in Spring 2010 was a one-day workshop identifying concrete areas for collaboration, particularly in the first two years of the Engineering and Planning undergraduate programs (pre-BEDS, in Architecture) and in developing shared vision for supporting design teaching in all the professional programs on Sexton campus. The results will inform Engineering's program development following the arrival of their new Canada Research Chair in Design Teaching in January 2011, as it will plans for development of the pre-BEDS curriculum in the School of Architecture. Possible future developments include the establishment of a shared foundation program and a campus-based research directoriate to facilitate development of collaborative proposals and projects.

4. The programme should explore ways of improving the level of graduate student financial support.

This is a priority for both Schools in the Faculty, particularly for entering students. Most of the School of Architecture's scholarships and awards are targeted towards in-course students or graduates. Recent and pending new awards include the H. Allen Brooks Fellowship, awarded periodically to an outstanding graduate for contemplation by travel and funded by an endowment of \$250,000; a graduate award sponsored by the Design and Construction Institute of Nova Scotia, that will alternate between Engineering and Architecture; and an increase in the size of the annually funded scholarship from the NLAA. Also, the Faculty's outreach and alumni activities since 2009 have resulted to sizable increases in donations to the Annual Fund. This fund supports student conference participation, the ASA lecture series, and exceptional extracurricular activities.

3. Programme's Progress in Addressing Past Deficiencies

a) Causes of Concern from 2004 VTR

Human Resources

In late 2009, the School conducted a performance review of incumbent Director Terrance Galvin, which concluded with a strong endorsement for re-appointment. This document also identified a number of challenges faced by the Director, especially in terms of collegial conduct, accountability, the School's governance structure, apparent overlaps in the responsibilities of Dean and Director, and the Director's expected teaching load of 50%. The School is taking measures to re-consider the role of the Director in light of the committee's and Dr. Galvin's comments. One suggestion is that the teaching load for the position be reduced to 25%.

Since January 2010, under the leadership of Acting Director Richard Kroeker, the School of Architecture has been revising its committee structure to facilitate curriculum renewal, delivery and monitoring. It has instituted a Year Five Review for students completing the M2 term, to provide faculty a curricular overview of M.Arch courses, comparable to that currently provided within the BEDS programme. Prof. Kroeker has established an executive committee for the School — comprised of Director, Undergraduate, and Graduate Coordinators — to advise on staffing and best use of resources, and to approve business which needs immediate action. He has also formalized term committees, comprised of all faculty teaching courses at each level (i.e. B1 and M2 in Fall, B2 and B5 in Winter, etc.), to organize deadlines, requirements and due dates, and to liaise with technical staff regarding special needs. These initiatives are expected to improve communication, foster a sense of common cause, and ultimately to reduce the administrative load for faculty at the school level.

b) Conditions not met in 2004-Update

Strategic Plan/Focus

In 2003, the Faculty of Architecture and Planning completed a *Strategic Focus* document to support the President's Strategic Focus of that year. The document laid out five strategic objectives for the Faculty: Strengthen Enrolment, Enhance Academic and Research Strengths, Enrich Student Experience, Sustain Campus Renewal, and Build Human Resources.

In 2007, the University revisited its Strategic Focus in *Making an Impact: The President's Strategic Focus, 2007-2010*. At that time, as a result of a decade of continuity in the President's office and a new Memorandum of Understanding with the province, the university embarked on an ambitious growth plan, with particular focus on campus renewal, student experience, and community outreach. At this time, plans for renewal of Sexton Campus were set in place.

The readjustment of global markets in 2009 affected pension funding, external giving, and the larger governmental context in which universities operate. In 2010, the province released a report on higher education in Nova Scotia. The result of these condition

is a new strategic planning process underway at the university level, that seeks to address potential reductions in government funding, increased demands for accountability, and a national research strategy aimed to support economic growth. Each Faculty in the university is adjusting its strategic plans in light of this context.

The School of Architecture is currently engaged with the School of Planning and the Dean in developing a new strategic plan for the Faculty by early 2011. This plan will target expected enrollments, facilities renewal, new programs, and synergies with other university offerings — particularly in the Faculty of Engineering (the Design and Innovation initiative) and the College of Sustainability. Additionally, the School of Architecture will make a thorough review of the professional architecture program as it is structured in the university, in terms of funding formulas, utilization of resources and performance indicators. Points already identified for further investigation include expansion of the pre-BEDS curriculum, an earlier entry point for incoming BEDS students, the possibility of focus areas within the professional program (such as joint majors with Sustainability and the MBA), and development in the area of Heritage Conservation.

Update on Library

[emailed Helen Powell for this information-no response-perhaps someone else has info]

c) Compliance with the Conditions for Accreditation

Gender Issues

The ratio of male to female students in the architecture program continues to hover around 45%-65%. In 2009, offers of admission were made equally to men and women, although final class numbers may vary depending on students' acceptance decisions.

Resource Centre Space

In 2009, the Resource Centre was relocated and entirely redesigned as part of the Architecture Office renovation. Although the floor area has not increased, the space is lighter, there are better workstations, computers, maps and slides are more easily accessed, and the room is open to students at all hours.

Exhibitions

Prior to 2001, the Faculty of Architecture and Planning had an exhibition coordinator to mount and manage the exhibitions programme. Since then, exhibitions have been held primarily at beginning of each teaching term, in September, January and May, usually in the Exhibition Room in the heart of the Medjuck building, but occasionally using other spaces in the building. The requirements for large all-school reviews in both Schools restrict the usage of the Exhibition Room to the first month of each term. As a result, a second exhibition venue, the Faculty Lounge Gallery, was inaugurated in 2009 to hold smaller exhibitions. The following shows have been hosted since the 2008 accreditation. (Exhibitions marked with * were originated and launched at the School of Architecture, those held in Faculty Lounge Gallery are marked with [FLG].)

- 8-12 September 2008 * *Two Communities in The Gambia* (Exhibition of BCBD programme at GTTI in The Gambia)
Coordinated by Christine Macy and Roger Mullin
- 15-26 September 2008 *Walks in Rome*
Photographs by Kip Harris
- 1–15 March 2009 [FLG] *Twenty + Change: Emerging Canadian Design Practice*
Curated by Heather Dubbeldam and Lola Sheppard
- 5-25 May 2009 *Tilting*
Curated by Robert Mellin
- 10-23 September 2009 *Architecture e+c: Work of Elin and Carmen Corneil, 1958-2008*
Curated by Carmen Corneil]
- 26-31 October 2009 * *Installations by Architects: Experiments in Building and Design*
Curated by Sarah Bonnemaïson and Ronit Eisenbach

Exhibitions planned for 2010-11 include:

- Fall 2010 [FLG] *Homework* (University College Dublin, Dalhousie, SUNY Buffalo & U Michigan)
Curated by John Tuomey
- 3-31 January 2011 *Penser Tout Haut (The Making of Architecture)*
Curated by Elke Krasny

Miscellaneous

The problem with pigeons roosting in the cornice and eaves of Medjuck Building has been effectively addressed by Facilities Management, with the installation of spikes above the windows and doorways on the north and west walls of the building, and the complete enclosure of the exterior fire stair off the Medjuck extension. Solutions to the problem of safe roof access to maintain the air handling system are still under investigation. The university has approved window replacement for the Medjuck building in its alternations and renovation budget. Work is scheduled to begin on the West Wall in 2012. This is expected to improve problems with ventilation and water infiltration in the studios.

Technical Support from the University/Computers

The installation of wireless internet throughout the Medjuck building was completed in early 2010, through cost-sharing from the Faculty and the university.

Non-Western Traditions in Teaching

The core humanities curriculum includes non-western architectural traditions at several points in the curriculum. In the BEDS curriculum, B1 History case studies include a study of the Battamaliba House (Togo, West Africa); B2 History devotes several lectures to modernist architecture in Japan, South America, India, and North Africa, including Egypt, and explores the influence of the architectural heritage of Mesopotamia on the work of

western architects such as Louis Kahn. In the M.Arch curriculum, graduate offerings in this area include:

- Graduate seminar *International Sustainable Development*, focusing primarily on non-western traditions and contexts (T. Galvin in 2008, R. Kavar in 2009),
- Integrated studio option in third-world context (i.e. *Sustainable Development Centre in Leh, Ladakh, India* (S. Bonnemaïson, R. Kavar, C. Macy in 2010). Also planned *Landscape Urbanism in Arid Climates, Chile* (C. Venart 2010, not offered due to sick leave)

CANADIAN ARCHITECTURAL CERTIFICATION BOARD
ANNUAL REPORT, YEAR 2009/2010
DALHOUSIE UNIVERSITY, SCHOOL OF ARCHITECTURE

HUMAN RESOURCES STATISTICS REPORT (AR)

For the period April 2009 to March 2010

	Pre-prof undergrad (BEDS)	Prof. MArch	Post-prof. MArch
STUDENT DATA (All figures are for the most populous of 3 terms)			
Full-time Students	123	104	0
Men	65	58	0
Women	58	46	0
Architecture design studio students	123	104	0
Outside students served by School (FTE*)	35.8	0	0
(*Each non-BEDS student is counted as 1/5 of a FTE.)			
TOTAL FTE STUDENTS	158.8	104	0
Foreign Students	12	5	0
Total degrees awarded	58	49	0
Men	31	27	0
Women	27	22	0
Number of Applicants			
Number enrolled at beginning of program	57	37	0
Number admitted with advanced standing	2	0	0
Retention	BEDS	MArch	
Degrees awarded/No. of Students in initial year**	54/63	49/52	
** (BEDS initial year is 2005. MArch initial year is 2007)	85.7%	94.2%	

SMK
21/06/2010

CANADIAN ARCHITECTURAL CERTIFICATION BOARD
ANNUAL REPORT, YEAR 2009/2010
DALHOUSIE UNIVERSITY, SCHOOL OF ARCHITECTURE

HUMAN RESOURCES STATISTICS REPORT (AR)

For the period April 2009 to March 2010

	Pre-prof (B.E.D.)	B.Arch Prof	M.Arch Prof.	M.Arch Post-Prof.
Student Data (refer to Attachment A)		n/a		suspended program
Full-time students				
men	65		58	
women	58		46	
FTE Students (total)	123		104	
Architecture design studio students	123		104	
Outside students served by the school (number/total FTE)	179/5=35.8		0	
Foreign students	12		5	
Total degrees awarded	58		27	
men	31		22	
women	27			
Number of applicants	294		64	
Number enrolled	123		104	
Number enrolled with advanced standing	2		n/a	

Resource Data

School Total

Externally generated funds (non-research)	193,005
Income generated by research	827,904
Faculty Total Budget 2009/2010	4,114,151
Faculty Central Units Budget 2009/2010	898,589
School of Architecture Budget 2009/2010	2,148,489
School of Planning Budget 2009/2010	1,067,073

SMK, EG
June 2010

CANADIAN ARCHITECTURAL CERTIFICATION BOARD																										
HUMAN RESOURCES STATISTICS REPORT (AR)																										
ANNUAL REPORT, YEAR 2009/2010																										
DALHOUSIE UNIVERSITY SCHOOL OF ARCHITECTURE																										
ATTACHMENT A																										
page 1 of 1																										
2009/2010 student statistics for Dalhousie School of Architecture (April 2009 to March 2010)																										
Summer 2008/2009							Fall 2009/2010							Winter 2009/2010												
	a	b	c	d	e	f	g		h	j	k	l	m	n	o	p	q		q	r	s	t	u	v	w	x
	B3	M1	M3 co-op*	Th and. Cont.**	P/T	Outside***	Post Prof		B1	B4 co-op*	M2	Year 5 Co-opt	Year 6	Th. Cont.**	P/T	Outside***	Post Prof		B2	B5	Year 5 Co-op	Year 6	Th. Cont.**	P/T	Outside***	Post Prof
men	36	23	22	24		1		men	30	34	23	9	7	15		94	0	men	30	35	23	28	7			88
women	28	13	16	18		2		women	27	29	16	14	8	12		85	0	women	27	31	16	23	6	1		84
totals	64	39	38	42	0	3	0	totals	57	63	39	23	15	27	0	179	0	totals	57	66	39	51	13	1	172	0
Full Time Total	183							Full Time Total	224									Full Time Total	213							
Total FT men	81							Total FT men	144									Total FT men	116							
Total FT women	57							Total FT women	130									Total FT women	97							
Studio	145							Studio	138									Studio	187							
BEDS FT Total	64							BEDS FT Total	120									BEDS FT Total	123							
BEDS FT men	36							BEDS FT men	64									BEDS FT men	65							
BEDS FT women	28							BEDS FT women	56									BEDS FT women	58							
BEDS studio	64							BEDS studio	57									BEDS studio	123							
MArch FT total	119							MArch FT total	104									MArch FT total	103							
MArch FT men	69							MArch FT men	54									MArch FT men	58							
MArch FT women	53							MArch FT women	50									MArch FT women	45							
MArch studio	81							MArch studio	81									MArch studio	64							
FTE BEDS	65							FTE BEDS	105									FTE BEDS	157							
FTE MArch	66							FTE MArch	67.6									FTE MArch	63							
FTE MArch Post-Prof.	0							FTE MArch Post-Prof.	0									FTE MArch Post-Prof.	0							
FTE Total	130							FTE Total	173									FTE Total	221							
* each Co-op student is counted as Full Time for the Student Population in the Programme and as 1/5 in F.T.E. for workload																										
** each Thesis Continuing student is counted as a Full Time Studio student and 1/3 in F.T.E. for workload																										
*** each outside student is counted as 1/5 in F.T.E. for workload-ARCH1000. 1200, 2000/2001, 2025 included for Fall/Winter																										
SMK - Dalhousie University School of Architecture - 2009/10																										

2009-10 faculty and staff statistics for Dalhousie University School of Architecture (01 April 2009 to 31 March 2010)																			
#	FTE	FTE/term (studio terms in bold)			TENURED OR TENURE-TRACK FACULTY	Full	Associate	Assistant	Lecturer	PhD	DArch	MArch PP	MArch	BArch	other bach.	other mast.	Registered	Notes	
		S	F	W															
1	1.00		0.67	0.67	Sarah Bonnemaïson		1			1									33% teaching release for research
1	1.00	1.00		1.00	Ted Cavanagh	1				1									
1	1.00	1.00	1.00		Terrance Galvin		1			1									sabbatical: winter
1	1.00			1.00	Roly Hudson			1		1									appointed Jan. 2010
1	0.50	0.30	0.30	0.30	Emanuel Jannasch				1				1						
1	0.30		0.30		Patrick Kelly				1								1		
1	1.00	1.00		1.00	Richard Kroeker	1								1					degree: AA Dipl.; acting director: winter
1	1.00	1.00			Brian Lilley		1							1			1		degree: AA Dipl.; sabbatical: fall, winter
1	0.50		0.15	0.50	Brian MacKay-Lyons	1						1						1	
1	1.00			1.00	Christine Macy	1						1						1	
1	1.00	1.00			Steven Mannell	1								1				1	academic leave: fall, winter
1	1.00			0.60	Susan Molesky		1					1							medical leave: summer, fall, 40% winter
1	1.00	1.00		1.00	Roger Mullin			1					1						
1	1.00		1.00	1.00	Stephen Parcell		1			1									
1	0.50	0.30	0.30		Austin Parsons			1									1		
1	0.75		0.75	0.75	Niall Savage		1						1					1	increased FTE to .75 in Sept. 2009
1	1.00		1.00	1.00	Catherine Venart			1					1					1	sabbatical: summer
1	1.00		1.00	1.00	Grant Wanzel	1						1							administrative leave: summer
18	15.55	6.60	6.47	11.12	FTE/term: tenured/ tenure-track faculty	6	6	4	2	5	0	4	4	3	0	2	6		
		S	F	W	PART-TIME INSTRUCTORS														
1			0.30		Jane Abbott								1						
1				0.15	Trevor Butler												1		
1			0.30		George Cotaras									1				1	
1			0.30		Susan Fitzgerald								1					1	
1		0.15			Bill Gastmeier												1		
1			0.50		Danny Goodz									1				1	
1		0.25	0.25	0.25	Peter Henry									1				1	
1			0.30		Rayleen Hill								1						
1				0.15	Lloyd Hunt									1				1	
1		0.15			Chad Jamieson								1					1	
1		0.15	0.15	0.15	Ken Kam										1				
1		0.30	0.15		Leon Katsepontes								1						
1				0.15	Abigail MacEachern								1					1	
1			0.15		Richard Mueller												1		
1		0.15			Benjie Nycum								1					1	
1			0.30		Eugene Pieczonka								1					1	
1			0.15	0.15	Douglas Pitcairn										1				
1			0.30		Kevin Reid								1					1	
1		0.30	0.30	0.30	Craig Rodmore												1		
1			0.15	0.15	Lee Schuette												1		
1		0.50		0.30	Talbot Sweetapple								1					1	
1				0.30	Nova Tayona								1						
1		0.15			Kim Thompson														
1		0.30	0.15	0.15	Lisa Tondino								1						
1				0.30	Vincent van den Brink									1					
1				0.15	Paul Westbrook											1			
26		2.40	3.75	2.65	FTE/term: part-time					0	0	0	13	4	3	5	11		
44		9.00	10.22	13.77	FTE/term: tenured, tenure-track, part-time					5	0	4	17	7	3	7	17		
					ADJUNCT FACULTY (External and thesis examiners)														
1	n/a				Trevor Butler												1		
1	n/a				Deborah Gans								1					1	
1	n/a				Peter Lynch									1				1	
1	n/a				Jacques Rousseau									1				1	
1	n/a				Leslie van Duzer								1						
5	n/a				TOTAL: adjunct					0	0	0	2	2	0	1	3		
					STAFF														
1	1.00				Dale Arsenaault														
1	1.00				Martha Barnstead											1			
1	1.00				Paula Costello									1					
1	1.00				Ron Fritz												1		
1	1.00				Eric Guile											1			
0	0.50				Emanuel Jannasch								1						
1	1.00				Ken Kam											1			
1	1.00				Susanna Morash-Kent												1		
1	1.00				Beverly Nightingale														
1	0.50				Douglas Pitcairn											1			
1	1.00				Anita Regan												1		
1	0.25				Lee Schuette												1		
1	0.50				Anne Swan												1		
1	1.00				Donald Westin												1		
13	11.75				TOTAL: staff permanent/contract					0	0	0	1	1	5	5	0		
57			Total																Dalhousie University, School of Architecture / 4 June 2010

4.6.3 Annual Report to CACB (2010–11)

Introduction

The School of Architecture at Dalhousie University celebrates its 50th anniversary this year. The Nova Scotia Technical College was developed by Dr. Frederick Sexton at the request of the Province of Nova Scotia and opened in 1907. He served as the principal and president from 1907 until 1947. His wife, May Sexton, was an active suffragette who worked tirelessly for women to have a place in technical education. The Architecture program was first established as part of the Nova Scotia Technical College in 1961, in the building on Sexton Campus which it still occupies at 5410 Spring Garden Road, now called the Medjuck Building. The name of the Nova Scotia Technical College was changed to the Technical University of Nova Scotia (TUNS) in 1980. In April of 1997 TUNS amalgamated with Dalhousie University and is now the Sexton Campus of Dalhousie University. At that time the Faculty of Computer Science was moved from Sexton Campus to the Studley Campus, leaving the Faculty of Engineering and the Faculty of Architecture and Planning in this central Halifax location.

Planning for the important fiftieth anniversary celebration has been underway for a few months. Activities will involve alumni, students, faculty, the city, and local professionals in an exciting event scheduled for this coming October.

The School of Architecture has a long established presence at Dalhousie University, in the city, within Canada and internationally, due to the impact of our alumni, students, and faculty. The School continues to draw applicants from a more diverse geographic base than any other department within the university. The numbers of male and female students enrolled are roughly equal. This CACB “Annual Report” describes the status of the School of Architecture as of 30 June 2011. Section 1 will briefly touch on the School’s strengths and address recent developments. Comments regarding the most recent Winter 2009 CACB Visiting Team Report are included in Section 2.

Section 1: Summary and Recent Developments

a) Faculty of Architecture and Planning

The School of Architecture is one of two schools in the Faculty of Architecture and Planning at Dalhousie University. Both Schools are located in the Medjuck Building on the Sexton Campus, Dalhousie’s downtown campus. The Faculty of Architecture and Planning shares this campus with the Faculty of Engineering. In response to the current economic context, the government-commissioned O’Neill Report on higher education in Nova Scotia (released September 2010) outlined some of the structural challenges facing the university sector in this province. In that report, Dalhousie University came out as the strongest institution in Atlantic Canada, maintaining its edge both in student enrollments and as the premier research institution in the region. The continuing strength of the School of Architecture within the University is reflected in the high numbers of student applications this past year, and the high number and quality of applicants to new faculty positions.

Since the 2009-10 report, the Faculty has embarked on a strategic planning process, enhanced collaboration with other university units, advanced its support for research, and re-invigorated its alumni outreach and relationship. The Schools' Directors are working effectively as a team to address challenges facing the Faculty, and student spirit is high in both the Architecture and the Planning programmes. These are a few highlights:

- The new Halifax Central Library is beginning construction this summer next door to the School of Architecture, on the corner of Spring Garden Road and Queen Street. The Dean of Architecture and Planning has been involved with the architects of the library project in program development for the new city library to ensure that it will also serve as a resource for the School of Architecture and the rest of Sexton Campus.
- Anne Swan, who was hired as the Faculty's alumni and development officer, in a partnership with the Office of External Relations and Advancement, has been on maternity leave. Nancy Farmer has been filling in for Anne during her leave. We are beginning to reap the benefits of the strong networks our alumni and development office has been creating with our alumni, with a new biannual newsletter, vigorous donor stewardship, and excellent follow-through with our co-op employers and members of the professional association. In 2010/11, the Faculty again participated in a full range of Dalhousie alumni events, locally, nationally and internationally, and hosted its own reception in Vancouver, during the 2011 RAIC conference attended by about 80 architecture alumni, Acting Director Richard Kroeker, his wife Arna Sisson and Co-op coordinator Paula Costello. Donations to the Annual Fund have increased greatly over the past year, and our endowments continue to grow. This annual fund is important in supporting student activities, including a strong, well funded student lecture series. The Dean is working closely with Anne Swan and Nancy Farmer.
- Discussions between the School of Architecture, the School of Planning, and the College of Sustainability are underway to develop a suite of courses in the area of environmental studies for students just out of high school. Students enrolling in the program would take a suite of courses that would prepare them for further studies towards a degree from the College of Sustainability, the School of Planning, or the School of Architecture. As planned, the courses will not use space or resources that would compromise the core curriculum in Architecture, they would give undergraduate students a solid grounding in general studies. This program will also place the Faculty and School of Architecture in a healthier financial position, based on Dalhousie University's policy of granting more funds to the unit in which a student is enrolled. The School of Architecture has in fact already been teaching a number of these courses for a number of years, without receiving the maximum funding benefits.
- The School of Architecture, in collaboration with the School of Planning, is

developing a course of studies at a graduate level in Heritage Conservation. We are working together with Parks Canada, Department of Canadian Heritage, and professional associations to create a course of study that might lead to a special certification or a minor in the area. The program is beginning this fall, when two electives will be offered: one in technology, taught by faculty member Austin Parsons, and one in humanities, taught by Jeffrey Reed, a sessional instructor. Further electives will be developed and offered in winter term and summer term. The courses and program are designed to be of interest to graduate students from engineering, architecture, and planning, as well as to working professionals.

- In Fall of 2010 Dr. Carolyn Watters was appointed as Vice President Academic and Provost of Dalhousie University. As a graduate of TUNS in the area of Computer Science, we feel Dr. Watters has a commitment to further developing Sexton Campus, with its major downtown presence. We have certainly felt that her appointment has led to an open and supportive relationship with Dalhousie Administration. A space audit commissioned by Dalhousie University is currently being completed in preparation for the upgrading of facilities on Sexton Campus.

b) School of Architecture

- BEDS/MArch Programme: The School of Architecture is one of many professional schools in Dalhousie, including Engineering, Law, Business, Dentistry, Medicine, and other health professions. Like these other schools, it requires a high teacher-student ratio (1:14) to deliver a highly structured curriculum, developing professional skills and knowledge. We have emphasized to Dalhousie Administration that our unique trimester system offers many efficiencies, by ensuring our facilities and support staff are being intensely utilized year round.
- Working together with the Dean and the Academic Vice President, the Acting Director has worked to create teaching positions that will engage local professionals of high quality on an on-going basis, allowing them a more consistent time commitment within which they can develop their teaching and research as well as maintain a healthy practice. In the past they have been hired as sessionals, often from term to term. Within the coming year there will be at least three positions which will be designated Professorships of Practice. These positions are somewhat modeled on what is current practice at other professional schools within Dalhousie.
- In recent years the School of Architecture has split the thesis class, with some students beginning thesis preparation in the fall term, and the rest extending their co-op work term four months to begin thesis preparation in the winter term. In the interest of creating a more unified thesis class, a more consistent set of course offerings, fewer staffing difficulties, and more efficiency, we will return to a single start date for thesis, beginning in September 2011. Unifying this cohort will improve class cohesion and enable us to use our resources more effectively.

- **BCBD Programme in the Gambia.** Dalhousie Architecture graduates Emma FitzGerald, Brad Pickard, and Paul Chafe have just returned in May 2011 from teaching internships in Gambia. The Winter Term 2009/10 saw the first graduates in a new programme initiated through the joint efforts of Dalhousie and partner institutions in The Gambia. The objective of the new Bachelor of Community Design and Building programme is to educate Gambians in the fields of planning, design and construction, to enhance the scholarly profile of these disciplines in the country, and to contribute to national development in The Gambia. Since 2003, Grant Wanzel has managed this project. Faculty now teaching in the programme are our graduates (BEDS and MEDS). Over the past few years, a number of our faculty have visited the Gambia to run hands-on workshops, advise on curricular and administrative matters, and serve as external examiners for the final project. The School of Architecture will continue to act as consultants over the next few years.
- **Botswana Programme:** Since its beginnings in the 1990s with a relationship with the government of Botswana, 24 professional Master of Architecture degrees and 30 Bachelor of Environmental Design Studies degrees have been awarded by Dalhousie University to students from that country. Mareko Gaoboe, currently in his final thesis term, is the last student from Botswana to be educated here under that agreement. The University of Botswana has started its own Department of Architecture, and we are working to maintain a continuing relationship with that school as well as with our alumni in Botswana. This summer term, Professor Richard Kroeker is taking an integrated studio of M1 graduate students to Botswana, where they will work on a site and program pertaining to an on-going hospice project there. The Master's thesis documents of past graduates from Botswana have served as an important text for the course.
- **Exchange Programmes.** In 2009/10, the School of Architecture concluded two exchange agreements, a renewal of our long-standing exchange with the Peter Behrens School in Düsseldorf, Germany and the establishment of a new exchange with the University of Strathclyde in Scotland. This past Fall, Dalhousie M.Arch. students completed successful terms on exchange in these two countries, and the School accepted 4 students from Scotland in Winter 2011 in our B5 term. This coming Fall, Dalhousie graduate students will again be going to both Schools.
- Over the past year, the Acting Director, together with an executive committee, has been working with the School of Architecture to create a comprehensive governance document which outlines and clarifies governance procedures within the department. This document was passed unanimously by a meeting of the School of Architecture in Summer of 2010. As well as a clarification of what were already current procedures, the document creates term committees, made of everyone teaching at any given level in a term. These Term Committees meet together at least twice, one term before the term in which they will be teaching together. As reported by both faculty and students, this has been useful in terms of

co-ordination as well as creating a more unified pedagogy. Another aspect of this document has been to create a School Executive made up of the Acting Director, the Graduate Coordinator, and the Undergraduate Coordinator, to help streamline the decision making process, and to give the Acting Director more input in relation to decisions relating to staffing and curriculum development.

- The School executive has also produced a draft document which clarifies the shared expectations for conduct of faculty members. Since this document draws on existing documents relating to the Collective Agreement and Dalhousie University procedures and has the authority of those root documents, it was felt that the code of conduct does not need to be passed or endorsed by the School committee to be active.
- In summer of 2010, our then Director, Terrance Galvin, who was on sabbatical, announced his resignation. This represents a great loss to the school, not only of a very effective leader and teacher, but also a valued colleague and friend. His effective teaching at Dalhousie led to a Teaching Award of Excellence from the Dalhousie Student Union in 2008. In 2009/10 he was asked to serve on the Board of Directors of the Canadian Architectural Certification Board where he will continue collaborating on refining the process of accreditation for Canadian schools. Thankfully, the timing of the resignation left at least one term for the School of Architecture to make appropriate adjustments.
- Just before Fall term, Professor Catherine Venart had a sudden medical condition which meant she was unable to carry out her teaching assignments. Prof. Venart continues to be on medical leave. Last minute adjustments to staffing were made. Later in the Fall term Professor Niall Savage was unable to complete his teaching assignments due to illness. Staffing adjustments were made in this case as well. Niall Savage remains on long term medical leave. This loss of important and effective faculty members had a great impact on our relatively small school. This unanticipated loss of core faculty members in quick succession led to a heavy administrative load, which we have taken steps to ensure won't be repeated. We continue to hope that both Catherine and Niall will be returning to our teaching ranks soon, in good health.
- Through discussion with the Vice President Academic and with the Dean, two limited-term teaching positions were created. Maria Elisa Navarro and Robert Collins were hired for a limited term to fill the vacancies caused by illness. Maria Elisa Navarro has taught as a sessional instructor in the past. She now is teaching in the areas of Design and History. Robert Collins is teaching in the areas of design, technology, and representation. The School has also been in a search for two tenure track faculty. The Vice President Academic agreed in January 2011 that one of those positions be described as a Director position. The searches have proceeded in a timely way. Shortlists for both positions have been established and the School hopes to be able to fill the positions shortly. Meanwhile the Acting

Director, Richard Kroeker, will continue in that position until January 2012 at the request of the School Committee and the Dean.

c) School of Architecture Teaching and Research

Given that the School of Architecture's focus in the professional architecture programme is design teaching, virtually all faculty members teach in design studio, as well as one or more of the other three teaching streams (Humanities, Technology, Practice). Faculty members teach two of the three terms per year, leaving one as a research term. The following is an update on the faculty for 2010/11:

Dr. Sarah Bonnemaïson (Assoc. Prof.) spent her sabbatical (Sept 2010-August 2011) at the @Lab, completing several projects that incorporate electronics and textiles into architectural structures — including a warming hut erected on the Halifax Commons for the Canada Winter Games (with a heartbeat monitor that triggers light and sound), and a reactive massage enclosure that ventilates in response to temperature and breath. She is currently working (with acoustician Bill Gastmeier) on a reactive ceiling system that will modify the acoustic qualities of a space; a trial version will be installed in the Exhibition Room. This is the final year of the @Lab, which has been funded for a three year period by the Atlantic Innovation Fund (\$1.4 million). In March, Bonnemaïson was awarded a 3 year SSHRC Research/Creation grant for "E-motion studies in the age of responsive environments". In December, she presented the @Lab's work at the Academy of Fine Arts in Vienna, and attended the opening of her traveling exhibit *Installation by Architects* at HDA in Graz, Austria. The exhibit is currently at AHO in Oslo, Norway, and will be at the University of Waterloo in July 2011.

Dr. Ted Cavanagh (Professor) presented his design-build research from the Coastal Studio at a conference on rural entrepreneurship at Queen's University School of Business. In March 2011, he chaired a CACB accreditation visit at l'Université de Montréal, and he is currently working with Canada Council and the RAIC to support Canada's participation in the Venice Biennale. Cavanagh was a respondent for a lecture by Dr. David Pantalony on "Provenance and the Role of the Public Museum", part of the *Science and its Publics* Lecture Series sponsored by the Canadian Centre for Ethics in Public Affairs and the Situating Science Knowledge Cluster at Dalhousie. In January 2011, the Coastal Studio's lamella structure at Ross Creek Centre for the Arts appeared in *Canadian Architect*. This summer, the Studio will be building a structure at the mouth of the Cheverie River, with support from Nova Scotia Department of Tourism and Shaw Brick. In March, Cavanagh was awarded his second 3 year SSHRC Research/Creation grant for further design-build activities in local communities.

Asst. Prof. Robert Collins joined us in May 2011 on a 9-month limited term appointment. A practicing architect from Maine, he is teaching B3 Design, representation, and technology courses.

Dr. Roland Hudson (Asst. Prof.) won Best Paper Award at the ACADIA 2011 Regional Conference in Lincoln, Nebraska, for his paper "Racetrack Modeler", written with Drew

MacDonald and Mark Humphreys of Populous; and he presented a poster on “Architectural Tooling” at the ACSA Annual conference in Montreal, featuring his *PopESO* Tool (for Evolutionary Structural Optimization) and *Metabibliography* Tool (an on-line wiki reference resource for architectural thesis students). He is leading a \$15,000 industrial liaison project on the use of Tire-Derived Aggregates (TDAs) as a sustainable building material, in collaboration with Stantec and Halifax C&D Recycling, and has completed a CFI application for an Advanced Building Laboratory in the Medjuck Architecture Building.

Instructor Emanuel Jannasch teaches the lighting module in B1 Technology, the B2 Technology course, graduate electives in machining, mold-making and other forms of manual and digital craft, and coordinates the summer Free Lab.

Lecturer Patrick Kelly serves the Faculty on a number of University committees, mostly associated with computing. He teaches digital media and his Archaeoastronomy remains a popular graduate elective. He is finishing a five-year term as editor of the Royal Astronomical Society of Canada's Observer's Handbook; and another as Annapolis Valley area coordinator for the Maritime Breeding Bird Atlas, and two years as president of the Nova Scotia Bird Society.

In his capacity as **Acting Director, Professor Richard Kroeker** has weathered unexpected staffing shortages due to sick leave, securing approval to fill two vacancies with limited term appointments. He normalized pay scales for sessional appointments, stabilized two long-serving sessional teachers with multi-year appointments, and is currently involved in the development of a pre-BEDS stream in collaboration with the undergraduate planning curriculum committee, and a new concentration in Historic Preservation. During this time, he maintained his teaching in B5 Design, B5 BSI (with Roly Hudson), and thesis. Kroeker's design work was featured in the traveling exhibition *Penser Tout Haut* (Making of Architecture) curated by Austrian critic Elke Krasny, which opened at UQAM in 2009, touring to Dalhousie and Graz, Austria in 2010–11. In 2010, his Pictou Landing Health Centre won an International Building of the Year Award from the Chicago Athenaeum and the European Centre for Architecture Art Design and Urban Studies. He lectured on his work at the awards ceremony in Madrid, and the project is on a European tour with the other award winners throughout 2011. Other recent design projects include the Boikhutsong Hospice in Botswana, for victims of HIV and their families (with alumnus Xeti Matebekwane); and the design of a Buddhist meeting place. Kroeker is currently working on development of computational tools for energy modeling in the preliminary design phase, and co-chairing E-SIM in Fall 2011 (an international conference on computational energy modeling methods). In 2011, Kroeker lectured and offered workshops at Carnegie Mellon, SUNY Buffalo, and the Ghost 13 symposium. He has been invited to be Visiting Professor by the Peter Behrens School of Architecture in Düsseldorf, and continues to serve as Acting Director of the School of Architecture.

Professor Brian MacKay-Lyons and his partner Adjunct Professor Talbot Sweetapple maintain a busy practice of houses and public institutions, including the Law School at

the University of Ottawa, the Kentville Public Library, and the School of Nursing at UPEI. A fourth monograph on the office, written by Robert McCarter, is underway. In this reporting cycle, Brian lectured in California, Vermont, Oklahoma, Maine, Puerto Rico, Quebec City and Toronto, and served on AIA juries in New York and Minnesota. In June 2011, MacKay-Lyons hosted the *Ghost 13* International Architectural Conference. This event brought 22 outstanding international architects to Nova Scotia for a three day conference attended by 200 people. Participants included Kenneth Frampton, Juhani Pallasmaa, Glenn Murcutt, Peter Stutchbury, Deborah Berke, Patricia Patkau, Brigitte Shim, Andrew Frear, Steve Badanes, Richard Kroeker, and many others.

Professor and Dean Christine Macy is working with the two School Directors to develop a strategic plan for the Faculty, to better support the professional programmes in architecture and planning within Dalhousie University's funding and administrative framework. The Dean is also directing the development of a Strategic Research Plan for the Faculty, a five year budget plan, and increased collaboration with the School of Planning and the Faculty of Engineering. Her research on the American planner Benton MacKaye was published in German in *Landschaft, Gehäuse Orientierung* (Reimer Verlag, 2010), and an English version is forthcoming in 2010, as part of the *Roads, Routes and Landscapes* project of the Institute for Form, Theory and History at the Architecture and Design School in Oslo (AHO). In Fall 2010, she completed the construction document phase for the *Black Loyalist Heritage Centre* in Birchtown (with Peter Henry Architects). In January 2011, Macy participated in design reviews at the University of Michigan and was a jury member to commission public art for the new Halifax Central Library. In February, she presented "From Mining to Hydropower in the American West" at *Fourth Nature: Mediated Landscapes*, a conference at the University of Waterloo on the topic of landscape urbanism. In June, she was interviewed as a dam expert for the PBS television series *The American Experience*.

Professor Steven Mannell continues his secondment as Director of Dalhousie's College of Sustainability. In May 2010, he co-chaired *Traditions of Ingenuity*, the annual conference of the Society for Study of Architecture in Canada, in Lunenburg. In Winter 2011, he coordinated Dalhousie's Killam Lectures Series, on the theme "Imagining an Sustainable World". Featured speakers included Kartikeya Sarabhai (Founding Director of the Centre for Environment Education in Ahmedabad, India) and William Rees (Professor of Community and Regional Planning at UBC).

Assoc. Prof. Susan Molesky completed her gradual return from sick leave on May 2010, following which she collaborated with colleague Catherine Venart in an entry for the annual Jardins de Métis Competition in Québec. Having received an accommodation for her tenure application in 2009, she has applied a second time in Fall 2010. In March 2011, she presented a paper "In Search of Beauty Always" at the ACSA Annual conference in Montreal.

Asst. Prof. Roger Mullin has been on sabbatical leave from Sept 2010-August 2011, during which time he plans to complete the path to licensure. He teaches design studios

and B3 Representation. In Summer 2010, he continued his design-build work with students at Spencer's Island, highlighting that community's shipbuilding heritage.

Asst. Prof. Maria Elisa Navarro joined us in May 2011, on a one-year limited term appointment. A PhD student at McGill (ABD), she is teaching B3 Design and architectural history from the Renaissance to the 18th century.

Asst. Prof. Austin Parsons has been on sabbatical leave from Sept 2010-August 2011, during which time he has been managing his ecologically-run woodlot. On his return to the School, he will be taking on new teaching responsibilities in the area of Historic Preservation: coordinating the program in the effort to develop it into a minor or certificate, and developing a new course in Technologies of Conservation.

Dr. Steve Parcell (Professor) continues to serve the School in the administrative capacity of Undergraduate and Graduate Coordinator, as well as teaching a graduate design studio, B1 History and B5 Representation. As co-editor of *Chora* (with Alberto Pérez-Gómez), he completed the sixth volume (McGill-Queen's University Press, 2011), and is now working on Volume 7. Later this year McGill-Queen's will publish his book *Four Historical Definitions of Architecture*, based on his dissertation.

Assoc. Prof. Niall Savage fell ill in December 2010, and is currently on 100% medical leave. In Winter 2011, the School was authorized to fill this vacancy with a 9-month limited term appointment, which was completed with the appointment of Robert Collins.

Asst. Prof. Catherine Venart fell ill in Fall 2010, and is currently on 100% medical leave. In Winter 2011, the School was authorized to fill this vacancy with a one-year limited term appointment, which was completed with the appointment of Maria-Elisa Navarro.

Emeritus Professor Grant Wanzel completed *Housing Nova Scotians: a Fresh Look* (with colleagues at the Affordable Housing Association of NS), available from the AHANS website. The report provided the focus for his presentation to the Annual Meeting of NS Planning Directors Association in May 2010. As President of Creighton/Gerrish Development Association, Wanzel secured New Dawn Enterprises of Sydney, NS, as an investor for a 48 unit affordable condominium on Gottingen Street, Halifax. This project will complete the Creighton/Gerrish Development. Wanzel has also been managing the Gambia Project, funded by the Canadian International Development Agency. He teaches part-time in housing design and housing theory, and in Winter 2011 offered a new graduate elective in real estate development.

Section 2: Detailed Progress Report 2009/10

a) CACB – Dalhousie University 2009 Visiting Team Report (February 2009)

The following section addresses ongoing progress of the professional programme relating directly to the ‘causes of concern’ raised by the CACB Visiting Team in 2009. Many of the concerns are being addressed, some immediately and some over a longer period of time. The School continues to encourage and build on the strengths which were also outlined in the report.

II. SUMMARY OF TEAM FINDINGS

Causes of Concern

1. The visiting team was struck by a unified teaching approach that favors analog over digital methods of representation, communication and experimentation. The team acknowledges this approach, and is aware of the recent addition of digital fabrication capacity and the fact that the school remains open to a variety of representational techniques. Still, the team must voice its strong concern over the relative lack of the application and exploration of digital techniques in the curriculum and in the student work displayed.

- The Acting Director of the School of Architecture has convened an ad hoc committee on the use of computers in the mainstream curriculum. The committee has made a number of recommendations which are being implemented: All incoming students are now required to have a laptop computer. In B1 Design, the students will be introduced to Rhino software for representing case studies. Rhino already has a presence in the School at the graduate level in courses taught by Roly Hudson; with Grasshopper, it is very useful for parametric modeling. In B1 Representation they will learn to use InDesign and Photoshop. In B1 Building Technology they will be introduced to the use of spreadsheet programs for computational analysis. B2 students now do their technology drawings using VectorWorks. B3 students are digitally presenting their final design projects. They are receiving instruction on presentation software in the B3 Representation course. They have been taught how to create a web site, where they will post their portfolios in preparation for their B4 co-op work term.
- In the B5 term, students are learning to use the parametric modeling tool Grasshopper, an add-on to Rhino, in the Building Systems Integration course to develop building zoning and structures strategies. They are being taught to use spreadsheet program analysis to produce parametric energy models for their design studio projects.

- MArch Technology courses will continue to use Grasshopper as a generative modeling tool. This will be an important part of the compulsory technology course being introduced at the M5 level and taught by Profs. Brian Lilley and Robert Collins.
- The Acting Director will set up a studio computer help centre, run by graduate student assistants to provide advice and instruction to students during studio hours and after hours on weekends and evenings.
- Our recent appointment in Design and Technology, Dr. Roland Hudson, has brought expertise in parametric design to the School. He teaches undergraduate design and technology courses, and his graduate electives in parametric design employ Grasshopper, generative modeling software that works with Rhino, the School's chosen software for communicating with the CNC router and 3-D printer.
- Computers in research: Two computer-oriented research initiatives are underway in the Faculty, and have been submitted as CFI applications in 2011. In the School of Planning, this is a transportation modeling lab. In the School of Architecture, this will be a digital modeling and prototyping lab focused on building components, under the direction of Dr. Hudson and Instructor Jannasch. If successful, both of these projects will significantly enhance the School's and Faculty's capabilities in digital modeling and prototyping; providing state-of-the-art equipment and a dedicated space allocation for these activities.

Facilities

- The Faculty workshops have undergone rationalization of space, equipment, staffing and operating procedures to integrate digitally- and manually-operated equipment in all shops (model shop, CNC lab, print shop, and GIS lab), and to increase hours of availability to students. In 2010 and 2011, acquisitions and upgrades include a stereotomic printer, digital controls on power tools, enhanced printing capability in the studios, and multiple student workstations in the print shop. All classrooms are being upgraded with permanent digital projectors, to encourage digital projection during reviews, promote video and flythrough representations and reduce paper waste.
- Shop rationalization is expected to continue as plans for Sexton Campus renewal progress, in particular with respect to the realization of greatly enhanced machining, manufacturing and prototyping facilities across the campus and shared with the Faculty of Engineering.
- As in 2010, this year's intense three-day orientation for incoming BEDS students will include focused workshops on the facilities and their capabilities, organized and delivered by the Architecture Students Association in collaboration with the newly appointed Instructor in Digital and Manual Fabrication. The goal is to

introduce new students to digital and shop resources at the beginning of their studies. The ASA, faculty and staff again will offer workshops in January as the cohort progresses and as new students enroll.

2. The team is not satisfied that the programme has dealt adequately with the deficiency in the area of comprehensive building design identified by the previous visiting team.

- The creation of Term Committees in the new governance document enables each set of term instructors to meet twice before the term begins. Each committee is chaired by the Undergraduate or Graduate Coordinator, so that the individual courses are coordinated with one another and the overall pedagogical agenda is clear and articulated.
- Beginning in Fall 2011, the MArch thesis preparation term will include a new compulsory six-credit-hour Technology course in which students will define and research a building system or detail that addresses and explores their thesis question. This is a return to an approach that worked well at the thesis level in the past, and which was lost due to changes in the delivery and scheduling of the thesis year. It will lead to a more comprehensive resolution of thesis projects, with a clearer focus on architectural aspects of the thesis research. Profs. Brian Lilley and Robert Collins are teaching this course in Fall 2011.
- Also at the graduate level, the M1 studios this summer term are specifically structured as integrated studios, in which all coursework is focused on the comprehensive design and development of a project. Humanities studies lead to detailed programme development and study of cultural contexts and interpretations, while the design and technology studies address the developed resolution of site, technical, material, and construction constraints. A design-build free lab completes the integrated project, with full-scale prototyping or on-site construction experience in a community.
- In Winter 2011, the B5 Design, B5 Building Systems Integration, and B5 Representation courses all dealt with the same building design to create a comprehensive project. The B5 History course this year remained separate, but in Winter 2012 it will also be integrated with the others to study the architecture of public institutions. In this case, the design of a school was the vehicle for study. Submission requirements across courses were coordinated to give students a holistic sense of architecture and a comprehensive awareness of the levels of resolution required. Presentation requirements were adjusted to require a more focused and complete level of resolution of the design. The results of this year's B5 term were promising. The best projects of the term were exhibited in the Alumni Lounge in the Faculty of Engineering at the request of the Dean of Engineering, and were very well received.

3. While there have been significant improvements to the space and facilities in the Faculty of Architecture and Planning building, the Team must point out that some areas

remain inaccessible. The Design Studios are overcrowded. The provisions for graduate students in particular are inadequate. The school requires additional space for lectures, classes, reviews, exhibitions and informal meetings. In a programme dedicated to the process of making, it is clear that the shops and fabrication facilities need to be expanded. And under Comments “For the Faculty of Architecture and Planning the key concern is to use the opportunity (plans for the Sexton Campus) to forge a stronger, more balanced and truly cross-disciplinary relationship between Planning, Architecture and Engineering.

- Classrooms and exhibition space: Dean Macy has had the three largest classrooms in the Medjuck Building re-designated as “common pool classrooms,” meaning they are centrally booked and maintained. Architecture and Planning maintains priority for use. This is ensuring that equipment and furniture are kept up-to-date, IT-current, and universally accessible, without relying on the Faculty operating funds. Rooms so designated now include the HA19 lecture hall and HA18 classroom on the ground floor, and classroom and exhibition spaces HB4 and HB2 on the first floor. In 2009-10, HB4 was upgraded with new stackable, rolling chairs with tablets, a permanently fixed data projector, and a plug-in podium, increasing its utility and reducing turn-around time between classes with varying configuration requirements.
- Dalhousie’s Facilities Management has retained a consulting architect to redevelop schematic designs to upgrade lecture theatre HA19, reversing its direction to increased capacity and universal accessibility, and also enabling it to function as a exhibition room for reviews and crits. The design has been discussed by the Schools of Architecture and Planning and cost estimates are underway. Facilities Management also investigated the enlargement of the Furry Room on the third floor, to provide universal access to that room and the adjacent studio tray. The engineering analysis proved the feasibility of this alteration, but completion of work will depend on the university’s allocation of its renovations and alterations budget. Currently, programme expansion is limited by space available, particularly in the School of Planning. Real relief — in the form of dedicated facilities for the School of Planning — will rely on the success of the Faculty’s fund-raising efforts, connected with overall Sexton Campus renewal, and on the university’s priorities for strategic investment. The Dean continues to advocate the critical importance of this effort to the Faculty’s professional programmes. Dalhousie has commissioned a Sexton campus wide spatial needs assessment. A comprehensive space audit of Sexton Campus (by ECS and Architects Alliance) is nearly complete. We are hopeful this will lead to new investment in much needed space for instruction and program growth.
- Shops and support facilities: On the main floor, office renovations were completed in 2009, providing high-quality office space, universal accessibility, and an attractive reception area for applicants and guests of the school. Studio washrooms are wheelchair accessible. The Resource Centre has moved to a more central and accessible location, with the GIS office above it, keeping the resources

together and making them easier to find. A conference table in the faculty area has provided new space for tutorials and small group meetings. Plans are underway to change lighting in the faculty area so it can be a more effective exhibition area.

- Collaborations with School of Planning and Faculty of Engineering: Operating in parallel with the physical planning of the campus, a Design and Innovation Committee met throughout 2009-10, with a mandate from the Vice President Academic and Provost to look for specific ways to collaborate across all design disciplines, with a view to making design education and research innovation central to the activities of the Sexton Campus. The committee consisted of representatives from both Sexton faculties and other Dalhousie faculties. It is hoped that increasing collaboration between faculties and schools on the Sexton Campus will lead to the design and construction of an IDEA Building with facilities for design instruction in all disciplines.

4. The programme should explore ways of improving the level of graduate student financial support.

- The Faculty's outreach and alumni activities since 2009 have resulted in a sizable increase in donations to the Annual Fund. This fund supports student conference participation, the ASA lecture series, and exceptional extracurricular activities. Bringing more funding to scholarships and awards is a priority for both Schools in the Faculty, particularly for entering students. Most of the School of Architecture's scholarships and awards are targeted towards in-course students or graduates. Recent and pending new awards include the H. Allen Brooks Fellowship, awarded periodically to an outstanding graduate for contemplation by travel and funded by an endowment of \$250,000; a graduate award sponsored by the Design and Construction Institute of Nova Scotia, that will alternate between Engineering and Architecture; and an increase in the size of the annually funded scholarship from the NLAA.

Section 3: Programme's Progress in Addressing Past Deficiencies

a) Causes of Concern from 2004 VTR

Human Resources

- Since January 2010, under the leadership of Acting Director Richard Kroeker, the School of Architecture has been revising its committee structure to facilitate curriculum renewal, delivery and monitoring. It has instituted a Year 5 Review for students completing the M2 term, to provide faculty a curricular overview of Year 5 MArch courses, comparable to the existing Year 3 and Year 4 Reviews in the BEDS programme. Prof. Kroeker has established an Executive Committee for the School — comprised of the Director, Undergraduate Coordinator, and Graduate Coordinator — to advise on staffing and use of

resources, and to approve business which needs immediate action. He has also formalized term committees, comprised of all faculty teaching courses at each level (B1 and M2 in Fall, B2 and B5 in Winter, etc.), to coordinate requirements and due dates, to liaise with technical staff regarding special needs, and to provide a more coherent pedagogy. These initiatives are improving communication, fostering a sense of common cause, and have begun to reduce the administrative load for faculty at the School level. The unfortunate loss of senior core faculty due to illness in Fall 2010 was a setback in this process, but it will be renewed with the new appointments.

- We received approval to launch a search for an external Director. There were a number of highly qualified applicants and a shortlist has been established. Hopefully the Director position and the new tenure-track position will soon be filled. With the two term appointments that began in May 2011, as well as the creation of Professorships of Practice, these new appointments should lead to long-term staffing stability and less teaching overload.

b) Conditions not met in 2004 - Update

Strategic Plan/Focus

- The readjustment of global markets in 2009 affected pension funding, external giving, and the larger governmental context in which universities operate. In 2010, the province released a report on higher education in Nova Scotia. The result of these conditions is a new strategic planning process underway at the university level, that seeks to address potential reductions in government funding, increased demands for accountability, and a national research strategy aimed to support economic growth. Each Faculty in the university is adjusting its strategic plans in light of this context.
- The School of Architecture is currently engaged with the School of Planning and the Dean in developing a new strategic plan for the Faculty by early 2012. This plan will target expected enrolments, facilities renewal, new programmes, and synergies with other university offerings: particularly in the Faculty of Engineering (the Design and Innovation initiative) and the College of Sustainability. Additionally, the School of Architecture will make a thorough review of the professional architecture programme as it is structured in the university, in terms of funding formulas, utilization of resources and performance indicators. Points already identified for further investigation include expansion of the non-degree curriculum and an earlier entry point for incoming BEDS students. This is made possible through co-operation with the School of Planning and the College of Sustainability, maximizing the options for students enrolling in the Faculty-based programme. The School of Architecture is developing a minor in the area of Heritage Conservation. This will lead to further collaborations with the School of Planning and the College of Sustainability at the graduate level.

c) Compliance with the Conditions for Accreditation

- **Gender Issues:** The ratio of female to male students in the architecture programme continues to hover around 45/65. In 2011, offers of admission were made equally to men and women, although final class numbers may vary depending on students' acceptance decision.
- **Resource Centre Space:** In 2009, the Resource Centre was relocated and entirely redesigned as part of the Architecture Office renovation. Although the floor area has not increased, the space is lighter, there are better workstations, computers, maps and slides are more easily accessed, and the room is open to students at all hours. The faculty area addition of a conference table has meant that space gets more effective use. Changes to the lighting in the Faculty area will also make it a more useful exhibition space.
- **Exhibitions:** Prior to 2001, the Faculty of Architecture and Planning had an exhibition coordinator to mount and manage the exhibitions programme. Since then, exhibitions have been held primarily at the beginning of each term, in September, January and May, usually in the Exhibition Room in the heart of the Medjuck Building, but occasionally in other parts of the building. The requirements for large reviews in both Schools restrict the usage of the Exhibition Room to the first month of each term. As a result, a second exhibition venue, the Faculty Lounge Gallery, was inaugurated in 2009 to hold smaller exhibitions. The following shows have been hosted since the 2008 accreditation.

3-31 January 2011: *Penser Tout Haut* (The Making of Architecture),
curated by Elke Krasny

1–30 June 2011: *The Gambia* (Exhibition of BCBD programme at GTTI
in The Gambia), coordinated by Emma FitzGerald, Paul Chafe, and Brad
Pickard

Miscellaneous

- **Technical Support from the University/Computers:** The installation of wireless internet throughout the Medjuck building was completed in early 2010, through cost sharing from the Faculty and the university.
- **Non-Western Traditions:** The BEDS Humanities stream includes non-Western architectural traditions in several courses: B1 History includes a lecture on the Batammaliba House (Togo, West Africa); B2 History devotes several lectures to modernist architecture in Japan, South America, India, and North Africa, including Egypt, and explores the influence of the architectural heritage of Mesopotamia on the work of Western architects such as Louis Kahn. B5

Building Systems Integration studies a number of non-Western precedents, including indigenous structures in Africa, North America and Korea, desert buildings in Egypt, Iran, Pakistan, Yemen and Iraq, and traditional building methods and strategies from China and India. In the MArch curriculum, offerings in this area include a course in International Sustainable Development, focusing primarily on non-Western traditions and contexts (Ramzi Kavar in 2010-11); an integrated M1 studio option in a third-world context: Housing for Haiti (Susan Molesky and Ramzi Kavar in Summer 2011); and another integrated M1 studio and travel option, the Boikhutsong Hospice project for Botswana (Richard Kroeker in Summer 2010).

CANADIAN ARCHITECTURAL CERTIFICATION BOARD
ANNUAL REPORT, YEAR 2010/2011
DALHOUSIE UNIVERSITY, SCHOOL OF ARCHITECTURE

HUMAN RESOURCES STATISTICS REPORT (AR)

For the period April 2010 to March 2011

	Pre-prof undergrad (BEDS)	Prof. MArch	Post-prof. MArch
STUDENT DATA (All figures are for the most populous of 3 terms)			
Full-time Students	121	123	0
Men	66	74	0
Women	55	49	0
Architecture design studio students	121	125	0
Outside students served by School (FTE*)	30.2	0	0
(*Each non-BEDS student is counted as 1/5 of a FTE.)			
TOTAL FTE STUDENTS	151.2	125	0
Foreign Students	14	11	0
Total degrees awarded	60	42	0
Men	34	23	0
Women	26	19	0
Number of Applicants			
Number enrolled at beginning of program	61	35	0
Number admitted with advanced standing	1	1	0
Retention	BEDS	MArch	
Degrees awarded/No. of Students in initial year**	60/66	42/44	
**(BEDS initial year is 2006. MArch initial year is 2008)	90.9%	95.5%	

SMK
20/05/2011

CANADIAN ARCHITECTURAL CERTIFICATION BOARD
ANNUAL REPORT, YEAR 2010/2011
DALHOUSIE UNIVERSITY, SCHOOL OF ARCHITECTURE

HUMAN RESOURCES STATISTICS REPORT (AR)

For the period April 2010 to March 2011

	Pre-prof (B.E.D.S.)	B.Arch Prof	M.Arch Prof.	M.Arch Post-Prof.
Student Data (refer to Attachment A)		n/a		suspended program
Full-time students				
men	122		69	0
women	89		46	0
FTE Students (total)	211		115	0
Architecture design studio students	154		53	0
Outside students served by the school (number/total FTE)	59		0	0
Foreign students	14		11	
Total degrees awarded	102			
men	66			
women	36			
Number of applicants	289			
Number enrolled	61			
Number enrolled with advanced standing	2			

Resource Data

School Total

Externally generated funds (non-research)	683,606
Income generated by research	309,875
Faculty Total Budget 2009/2010	4,278,412
Faculty Central Units Budget 2009/2010	978,335
School of Architecture Budget 2009/2010	2,215,542
School of Planning Budget 2009/2010	1,084,535

SMK, EG
June 2011

CANADIAN ARCHITECTURAL CERTIFICATION BOARD																											
HUMAN RESOURCES STATISTICS REPORT (AR)																											
ANNUAL REPORT, YEAR 2010/2011																											
DALHOUSIE UNIVERSITY SCHOOL OF ARCHITECTURE																											
ATTACHMENT A																											
page 1 of 1																											
2010/2011 student statistics for Dalhousie School of Architecture (April 2010 to March 2011)																											
Summer 2009/2010								Fall 2010/2011								Winter 2010/2011											
	a	b	c	d	e	f	g		h	i	j	k	l	m	n	o	p	q		q	r	s	t	u	v	w	x
	Year 4	Year 5	Year 5 co-op*	Year 6**	P/T	Outside***	Post Prof		Year 3	Year 4 co-op*	Year 5	Year 5 co-op*	Year 6	Yr. 6 contin.**	P/T	Outside***	Post Prof		Year 3	Year 4	Year 5 co-op*	Year 6	Yr. 6 contin**	P/T	Outside***	Post Prof	
men	30	18	26	16				men	37	32	27	10	24	11			86	0	men	35	31	47	23	4			79
women	27	17	19	10				women	24	26	17	9	12	6	4		65	0	women	22	33	31	13	4	1		62
totals	57	35	45	26	0	0	0	totals	61	58	44	19	36	17	4	151	0	totals	57	64	78	36	8	1	141	0	
Full Time Total	163							Full Time Total	235									Full Time Total	235								
Total FT men	90							Total FT men	141									Total FT men	136								
Total FT women	73							Total FT women	94									Total FT women	99								
Studio	97							Studio	162									Studio	166								
BEDS FT Total	57							BEDS FT Total	119									BEDS FT Total	122								
BEDS FT men	30							BEDS FT men	69									BEDS FT men	66								
BEDS FT women	27							BEDS FT women	50									BEDS FT women	56								
BEDS studio	57							BEDS studio	61									BEDS studio	122								
MArch FT total	106							MArch FT total	116									MArch FT total	122								
MArch FT men	60							MArch FT men	72									MArch FT men	74								
MArch FT women	46							MArch FT women	44									MArch FT women	48								
MArch studio	61							MArch studio	97									MArch studio	44								
FTE BEDS	57							FTE BEDS	107									FTE BEDS	150								
FTE MArch	53							FTE MArch	89									FTE MArch	54								
FTE MArch Post-Prof.	0							FTE MArch Post-Prof.	0									FTE MArch Post-Prof.	0								
FTE Total	110							FTE Total	196									FTE Total	204								
* each Co-op student is counted as Full Time for the Student Population in the Programme and as 1/5 in F.T.E. for workload																											
** each Thesis Continuing student is counted as a Full Time Studio student and 1/3 in F.T.E. for workload																											
*** each outside student is counted as 1/5 in F.T.E. for workload-ARCH1000 included for Fall/Winter																											
SMK - Dalhousie University School of Architecture - 2010/11																											

2010-11 faculty and staff statistics for Dalhousie University School of Architecture (01 April 2010 to 31 March 2011)																			
#	FTE	FTE/term (studio terms in bold)			TENURED OR TENURE-TRACK FACULTY	Full	Associate	Assistant	Lecturer	PhD	DArch	MArch PP	MArch	BArch	other bach.	other mast.	Registered	Notes	
		S	F	W															
1	1.00	0.67			Sarah Bonnemaison		1			1									33% teaching release; sabbatical fall, winter
1	1.00	1.00		1.00	Ted Cavanagh	1				1									
1	0.67				Terrance Galvin		1			1									sabbatical: summer, fall; resigned Dec. 2010
1	1.00	1.00		1.00	Roly Hudson			1		1									
1	0.50	0.30	0.30	0.30	Emanuel Jannasch				1				1						
1	0.30		0.30	0.30	Patrick Kelly				1								1		
1	1.00	1.00		1.00	Richard Kroeker	1									1			1	degree: AA Dipl.; acting director
1	1.00		1.00		Brian Lilley		1								1				degree: AA Dipl.; sabbatical: summer
1	0.50		0.15	0.50	Brian MacKay-Lyons	1						1						1	
1	1.00	1.00	0.15	1.00	Christine Macy	1						1							1 dean
1	0.00				Steven Mannell	1									1			1	academic leave
1	1.00	1.00		1.00	Susan Molesky		1					1							
1	1.00	1.00			Roger Mullin			1					1						sabbatical: winter
1	1.00		1.00	1.00	Stephen Parcell	1			1										
1	0.50	0.30			Austin Parsons			1									1		sabbatical: fall, winter
1	0.75		0.75		Niall Savage		1						1					1	medical leave: winter
1	1.00				Catherine Venart			1					1					1	medical leave: fall, winter
1	0.33				Grant Wanzel	1						1							retired: July 2010
						7	5	4	2	5	0	4	4	3	0	2		6	
18	13.55	7.27	3.65	7.10	FTE/term: tenured / tenure-track faculty														
		S	F	W	PART-TIME INSTRUCTORS														
1			0.30		Jane Abbott								1					1	
1				0.15	Trevor Butler													1	
1			0.15		Susan Fitzgerald								1					1	
1		0.15			Bill Gastmeier													1	
1			0.50		Danny Goodz									1					
1		0.25	0.25	0.25	Peter Henry										1			1	
1			0.30	0.30	Rayleen Hill								1					1	
1			0.15		Lloyd Hunt									1				1	
1			0.30		Chad Jamieson								1					1	
1			0.15	0.30	Ken Kam										1				
1			0.15		Leon Katsepontes									1					
1		0.50	0.15		Ramzi Kavar									1				1	
1		0.30	0.30	0.30	Jonathan Mandeville									1					
1			0.15		Richard Mueller													1	
1		0.50			Marla Elisa Navarro							1							
1		0.15			Benjie Nycum								1					1	
1			0.15	0.15	Douglas Pitcairn										1				
1			0.30		Kevin Reid								1					1	
1		0.30	0.30		Craig Rodmore													1	
1		0.15	0.15		Lee Schuette													1	
1		0.50		0.30	Talbot Sweetapple								1					1	
1		0.30			Nova Tayona								1					1	
1			0.15		Kim Thompson									1					
1			0.15		Lisa Tondino								1						
1				0.30	Vincent van den Brink								1					1	
1			0.50		Grant Wanzel							1							
1				0.15	Paul Westbrook											1			
27		3.10	4.10	3.15	FTE/term: part-time					0	0	2	13	3	3	5	12		
45		10.37	7.75	10.25	FTE/term: tenured, tenure-track, part-time					5	0	6	17	6	3	7	18		
					ADJUNCT FACULTY (External and thesis examiners)														
1	n/a				Trevor Butler													1	
1	n/a				Carol Burns								1						
1	n/a				Brian Carter							1							
1	n/a				Deborah Gans								1					1	
1	n/a				Peter Lynch									1				1	
1	n/a				Peter Sassenroth													1	degree: Dipl. Ing.
1	n/a				Leslie van Duzer									1					
7	n/a				TOTAL: adjunct					0	0	1	3	1	0	2	3		
					STAFF														
1	1.00				Dale Arsenaull														
1	1.00				Martha Barnstead											1			
1	1.00				Paula Costello									1					
1	0.17				Nancy Farmer														replacement for Anne Swan: winter
1	1.00				Ron Fritz													1	
1	1.00				Eric Guile										1				
0	0.50				Emanuel Jannasch								1						half instructor / half technician
1	1.00				Ken Kam										1				
1	1.00				Susanna Morash-Kent													1	
1	1.00				Beverly Nightingale														
1	0.50				Douglas Pitcairn										1				
1	1.00				Anita Regan													1	
1	0.25				Lee Schuette													1	
1	0.33				Anne Swan													1	maternity leave: winter
1	0.50				JoAnne Woodworth														
1	1.00				Donald Westin										1				
15	12.25				TOTAL: staff permanent/contract					0	0	0	1	1	5	5	0		
60					Total														Dalhousie University, School of Architecture / 20 May 2011

4.6.4 Annual Report to CACB (2011–12)

Dalhousie University - School of Architecture
Annual Report 2011-2012 to the CACB
29 June 2012

Annual Report to the CACB (2011-2012)

Section 1: Introduction

This report describes the current status of the School of Architecture in the Faculty of Architecture and Planning at Dalhousie University. It complements the Focused Evaluation Report that the School of Architecture submitted to the CACB in April 2012. Part of the current report also refers to the text of the 2009 CACB Visiting Team Report.

The School of Architecture at Dalhousie University celebrated its fiftieth anniversary in Fall 2011. This involved a series of events entitled “Capital Conversations - Capital Planning in Ottawa and Halifax”: a keynote lecture and a panel discussion with the participation of the National Capital Commission, local community members, the director of the Urban Design for the Boston Redevelopment Authority, the city planner from Halifax Regional Municipality by Design, faculty members and students. This was followed by a "50:50 Charette" in which students, alumni, practitioners and community members collaborated on a vision for a future Halifax.

Faculty of Architecture and Planning

This year and next year the building's exterior walls will be repaired and new windows will be installed. The new windows will be closer to the design of the original windows but will have double glazing and thermal breaks and will be operable at the studio level for natural ventilation, especially during hot summer days. There will be new funds for the Faculty's computer labs to increase the effectiveness of digital media in BEDS and MArch courses. The Faculty and School are working together on several initiatives: a more productive relationship with NSCAD University, a foundation stream, and a new heritage conservation stream.

Dean Christine Macy has applied for her second term as the Dean of the Faculty of Architecture and Planning. In July 2012 the School of Planning will have a new director: Andy Fillmore, formerly a senior planner at HRM by Design. The School of Architecture has had a new director, Diogo Burnay, since January 2012. Two Architecture faculty who were on medical leave will return to full-time teaching this fall. One other faculty member recently went on medical leave. A new tenure-track Architecture faculty appointment should be in place later this summer.

School of Architecture

- **BEDS/MArch Programme:** The School of Architecture is one of several professional schools in Dalhousie, including Engineering, Law, Dentistry, Medicine, and Health Professions. Like those other schools, it requires a high teacher-student ratio (12:1 in design courses) to deliver a highly structured curriculum and develop professional skills and knowledge. The School of Architecture continues to operate with a trimester schedule that utilizes our facilities and support staff all year round.

- With the Dean and the Vice President (Academic) / Provost, the School is working towards creating two new faculty positions for professionals of high quality, providing a longer-term commitment for developing their teaching while maintaining a healthy professional practice. In the past, professionals have been hired as sessionals from term to term. These new Professor of Practice positions have precedents in other professional schools at Dalhousie and other universities in the United States. The School is currently drafting the terms of appointment for approval by the university.
- The first thesis term is now more organized and better staffed, with a term coordinator and more faculty members. A pair of courses, Thesis Preparation and Building Systems Integration for Design Thesis, will work in a more integrated way so that students develop their thesis topic through both design and technology. After this first thesis term, students will work with a thesis supervisor and advisor.
- BCBD Programme in The Gambia: The objectives of the Bachelor of Community Building and Design programme have been to contribute to the education of Gambians in the fields of planning, design and construction; to enhance the scholarly profile of these disciplines in the country; and to contribute to national development in The Gambia. This programme has been managed by Professor Emeritus Grant Wanzel since 2003. Recent graduates from Dalhousie and other Canadian universities have served as interns in The Gambia, funded by CIDA's IYIP program. During the past few years, a number of our faculty have visited The Gambia to run hands-on workshops, advise on curricular and administrative matters, and serve as external critics for the final project. The School of Architecture will continue to act as consultants over the next few years.
- Botswana Programme: This programme has been operating since 1993, in collaboration with the government of Botswana. Dalhousie University has awarded 30 Bachelor of Environmental Design Studies degrees and 24 professional Master of Architecture degrees to students from Botswana. The University of Botswana recently established its own Department of Architecture to educate architecture students from Botswana. Dalhousie's School of Architecture will have a continuing relationship with that new school, as well as with our alumni in Botswana.
- Exchange Programmes: In 2010/11, the School of Architecture continued its two exchange agreements with the Peter Behrens School of Architecture in Duesseldorf, Germany, and the University of Strathclyde in Glasgow, Scotland. This past fall, Dalhousie MArch students completed successful terms on exchange in these two countries. This coming fall, four Dalhousie graduate students will participate in the University of Strathclyde exchange, while the Duesseldorf exchange is temporarily inactive. This fall one MArch design studio will travel to Bogota, Colombia to develop urban housing projects in collaboration with a local school of architecture.
- In the BEDS and MArch programmes, term committees continue to organize and manage each academic term. This is especially important in terms when courses are integrated and have common learning objectives, shared requirements, and coordinated due dates. This has improved communication and streamlined administration for instructors.

Section 2: Detailed Progress Report Since 2009/10

a) CACB – Dalhousie University 2009 Visiting Team Report (February 2009):

The following section addresses the ongoing progress of the professional programme relating directly to the ‘causes of concern’ raised by the CACB Visiting Team in 2009. Some concerns are being addressed immediately and some over a longer period.

II. SUMMARY OF TEAM FINDINGS

Causes of Concern

1. The visiting team was struck by a unified teaching approach that favors analog over digital methods of representation, communication and experimentation. The team acknowledges this approach, and is aware of the recent addition of digital fabrication capacity and the fact that the school remains open to a variety of representational techniques. Still, the team must voice its strong concern over the relative lack of the application and exploration of digital techniques in the curriculum and in the student work displayed.

- A new Computer Committee has been reconfiguring the Faculty's computer and fabrication labs. Every new BEDS student is now required to have a laptop computer for design work, based on specifications prepared by the committee. In the BEDS and MArch programmes, all students are being introduced to software for 2D and 3D design, spreadsheets, graphic design, web design, image processing, and some 2D and 3D digital fabrication. A computer help desk, run by paid student assistants, was established to provide advice and instruction to students during studio hours and after hours, including evenings and weekends. The digital modelling and prototyping labs will be upgraded with extra funding from a research grant.

Facilities

- The Faculty workshop spaces, equipment, staffing and operating procedures have been reorganized and upgraded to integrate digitally- and manually-operated equipment in all shops (woodworking shop, CNC lab, and print shop). All classrooms now have a fixed digital projector. Three large portable monitors have been purchased to facilitate digital projections during reviews, including videos and animations, and to reduce the amount of printing on paper.
- In September 2011 an intense three-day orientation for incoming BEDS students included workshops on the facilities and their operation. This was organized and delivered mainly by senior students from the Architecture Students Association, in collaboration with the newly appointed Instructor in Digital and Manual Fabrication. This introduced new students to digital and shop resources at the beginning of their studies. Additional workshops were offered in January to provide a second round of orientation.

2. The team is not satisfied that the programme has dealt adequately with the deficiency in the area of comprehensive building design identified by the previous visiting team.

- The term committees have facilitated greater integration of courses and learning objectives.
- The MArch Thesis Preparation (M5) term will continue to include a mandatory six-credit-hour technology course in which students define and research a building system that addresses their thesis question. This will promote a more comprehensive investigation and a greater design resolution of thesis projects.
- Two of the four M1 Design studios this summer have co-requisite courses in humanities and/or technology that enable the design projects to be developed in a more comprehensive way. Several design/build Free Labs at the end of the summer term will extend this integration through full-scale prototyping or on-site construction in a community.
- In Winter 2012, the B5 Design, B5 Building Systems Integration, and B5 Representation courses all focused on the same comprehensive project. At the end of the term each student also prepared a comprehensive report of work from all three courses. The B5 History course provided additional support by studying the architecture of public institutions. For a more detailed description and examples of work from the B5 term, as well as the new M5 Building Systems Integration course (ARCH 5216), please refer to the Focused Evaluation Report that was submitted to the CACB in April 2012.

3. While there have been significant improvements to the space and facilities in the Faculty of Architecture and Planning building, the Team must point out that some areas remain inaccessible. The Design Studios are overcrowded. The provisions for graduate students in particular are inadequate. The school requires additional space for lectures, classes, reviews, exhibitions and informal meetings. In a programme dedicated to the process of making, it is clear that the shops and fabrication facilities need to be expanded. And under Comments “ For the Faculty of Architecture and Planning the key concern is to use the opportunity (plans for the Sexton Campus) to forge a stronger, more balanced and truly cross-disciplinary relationship between Planning, Architecture and Engineering.

- The three largest classrooms and the auditorium are now designated as “university common pool classrooms” that are centrally booked and maintained, while continuing to be used primarily for Architecture and Planning. The equipment and furniture in these rooms will be kept up-to-date, IT-current, and universally accessible by the university, without relying on the Faculty's operating funds. These rooms include the auditorium (HA19) and classroom (HA18) on the ground floor, and two classrooms (HB2 and HB4) on the first floor.
- A schematic design to upgrade the auditorium is being discussed by Facilities Management, a consulting architect, and the Faculty. This would enable the space to be used with more flexibility.

- A proposal has been developed for the third floor to provide universal access to the "Furry Room" (currently used as a computer lab) and the adjacent studio level. The Faculty is waiting for funds to be allocated by the University.
- Shops and support facilities: Along with the renovations to the exterior walls, some small office renovations will be done this year and next year. The Resource Centre is now in a more central and accessible location. A large conference table in the faculty office area has provided a new space for tutorials and small group meetings. This area has had new lighting installed so that it can be used more effectively as a secondary exhibition space in the building.
- The School of Architecture, the School of Planning, the Faculty of Engineering, and the Vice President (Academic) / Provost are continuing to discuss the creation of a new IDEA Building that would make design education and research innovation central to the activities of the Sexton Campus. This building would accommodate facilities for design education in all of these disciplines.

4. The programme should explore ways of improving the level of graduate student financial support.

- The Faculty's outreach and alumni activities since 2009 have resulted in a sizable increase in donations to the Annual Fund. This fund supports student conference participation, the ASA lecture series, and exceptional extracurricular activities. Bringing more funding to scholarships and awards is a priority for both Schools in the Faculty, particularly for incoming students. Most of the School of Architecture's scholarships and bursaries are currently for in-course students.

Section 3: Programme's Progress in Addressing Past Deficiencies

a) Causes of Concern from 2004 VTR
Human Resources

- The Director's position was filled in January 2012. We also expect to appoint a new tenure-track faculty member later this summer, and to appoint two new Professors of Practice during the next academic year. Together, these new appointments should lead to longer-term staffing stability and less teaching overload for current faculty members.

b) Conditions not met in 2004 - Update
Strategic Plan/Focus

- The readjustment of global markets in 2009 affected pension funding, external giving, and the larger governmental context in which universities operate. In 2010, the province released a report on higher education in Nova Scotia. The result of these conditions is a new strategic planning process underway at the university level that seeks to address potential reductions in government funding, increased demands for accountability, and a national research strategy aimed to support economic growth. Each Faculty in the university is adjusting its strategic plans in light of this context.

- The School of Architecture, the School of Planning, and the Dean are developing a new strategic plan for the Faculty of Architecture and Planning by late 2012. This plan will consider expected enrolments, facilities renewal, new programmes, and synergies with other university offerings: particularly in the Faculty of Engineering (the Design and Innovation initiative) and the College of Sustainability. The School of Architecture is making a thorough review of the professional architecture programme as it is structured in the university, in terms of funding formulas, utilization of resources and performance indicators. The School is considering an expansion of its non-degree curriculum at first- and second-year university level. This is possible through co-operation with the School of Planning and the College of Sustainability, maximizing the options for students enrolling in the Faculty-based programme. The School of Architecture is also developing a graduate-level specialization in heritage conservation with courses that are open to larger academic and professional communities.

c) Compliance with the Conditions for Accreditation

- Gender Issues: The ratio of female-to-male students in the Architecture programme remains around 45:55. In 2011, BEDS admission offers were made equally to men and women.
- Resource Centre: In 2009, the Resource Centre was relocated and entirely redesigned as part of the Architecture Office renovation. Although the floor area has not increased, the space is lighter; there are better workstations; computers, maps and slides are more easily accessed; and the room is open to students at all hours.
- Exhibitions: Prior to 2001, the Faculty of Architecture and Planning had an exhibition coordinator to mount and manage the exhibitions programme. Since then, exhibitions have been held primarily at the beginning of each term, in September, January and May, usually in the Exhibition Room in the heart of the Medjuck Building, but occasionally in other parts of the building. The requirements for large reviews in both Schools restrict the usage of the Exhibition Room to the first month of each term. As a result, a second exhibition venue, the Faculty Lounge Gallery, was inaugurated in 2009 to hold smaller exhibitions.

Miscellaneous

- The BEDS Humanities stream includes lectures on non-Western architectural traditions in several courses, involving architectural work in Africa, Japan, South America, and India, and including its influence on work by Western architects. The B5 Building Systems Integration course presented studies of a number of non-Western precedents, including indigenous structures in Africa, North America and Korea, desert buildings in Egypt, Iran, Pakistan, Yemen and Iraq, and traditional building methods and strategies from China and India. One of the core Humanities courses that students can select in the MArch program is International Sustainable Development, which focuses primarily on non-Western traditions and contexts. Several graduate design studios have focused on different cultural and geographic settings, with the students traveling to locations such as India and Botswana and carrying out design projects for local communities there.

Yours truly,
Diogo Burnay
Director, School of Architecture

A-4• Human Resources Statistics Report • 2011 – 2012

School or Program : Dalhousie University

Professional Degree Accredited	Total nb of credits / degree	Total nb of terms / degree	Nb of credits / term	Nb of hours / credit	Total nb of hours / degree
• Master of Architecture degree with a related pre-professional bachelor's degree	10	4	16	6	63
	11	4	17	6	67
• Master of Architecture degree without a pre-professional requirement, and consisting of an undergraduate degree plus a minimum of three years of professional studies					
• Bachelor of Architecture degree minimum of five years of study, except in Quebec, where four years of professional studies follow two years of CEGEP studies					

Faculty Data	Faculty Credentials (highest degree only) Full-time (FT) + Part-Time (PT)													
	Ph.D or D.Arch		Post- Prof Ms		Prof. M.Arch		B.Arch		Other		Licensed architects		Studio teaching	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Regular Faculty	4		2	1	3	1	2			1	3	1	9	2
Men	3			1	2	1	2			1	1	1	6	1
Women	1		1	1	1						2		3	1
Total FT Equivalent (FTE) Regular Faculty: Number of FT Regular Faculty + a figure equating PT Regular Faculty	12.5													
Typical FT teaching load / year	770 hours													
Other Faculty			1	1		12		3	1	1	1	8	2	9
• Visiting														
• Adjunct • Sessional • Lecturer			1	1		12		3	1	1	1	8	2	9
• Ph.D Candidate														
Men				1		8		2	1	1	1	5	1	5
Women			1			4		1				3	1	4
Total FT Equivalent (FTE) Other Faculty: a figure equating other faculty on the basis of a typical FT teaching load	9													
Total FTE Regular + Other Faculty	21.5													
Total Regular and Other Faculty who are licensed architects											13			
Total Regular and Other Faculty teaching in studio													22	
Nb of pre-professional studios taught by all Faculty for the year													20	
Nb of Masters studios taught by all Faculty for the year													16	

Student Data	Pre-professional degree				Master of Architecture degree <u>or</u> Bachelor of Architecture degree			
	Fall	Winter	Summer	Mean/yr	Fall	Winter	Summer	Mean/yr
Full-Time Students	117	125	64	102	77	83	100	86.66
Men (optional)	70	71	37	59.33	38	43	53	44.66
Women (optional)	47	54	27	42.66	39	40	47	42
Part-Time Students	0	0	0	0	0	0	0	0
Men (optional)								
Women (optional)								
Total Full-Time Equivalent (FTE) Students ¹	117	125	64	102	77	83	100	86.66
FTE Foreign Students ² (optional)	5	5	1	3.67	1	0	0	.33
Students in Design Studio	61	125	64	83.3	77	46	67	63.33
Studio Ratio (Students in Design Studios / Nb studios taught for a year)	250 / 20 = 12.5				190 / 16 = 11.8			
	Fall	Winter	Summer	Total/yr	Fall	Winter	Summer	Total/yr
Number of applicants for a given term and total for a year	284	52	0	336	-	-	65	65
Number of entering students for a given term and total for a year	61	10	1	67	-	-	39	39
With advanced standing (optional)		10		10				
Total Degrees Awarded-Expected for a given term and total for a year	0	55	0	55	26	46	0	72
Men (optional)								
Women (optional)								
Graduation Rate (%) ³				55/61 or 90%				58/72 or 80.5%

¹ Full-Time Equivalent Students (FTE): Number of full-time students reported above + number of full-time equivalent for part-time students calculated on the basis of a full course load required to complete the program in the normal number of terms.

² FTE Foreign Students : Students included in Total FTE Students who are not Canadian citizens or landed immigrants.

³ No of degrees awarded or expected / No of entering students at the beginning of the degree.

4.6.5 Annual Report to CACB (2012–13)

Dalhousie University - School of Architecture
Annual Report 2012-2013 to the CACB
29 June 2013

Annual Report to the CACB (2012-2013)

Section 1: Introduction

This report describes the current status of the School of Architecture in the Faculty of Architecture and Planning at Dalhousie University. As requested by the CACB (22 June 2012), our report also includes an update on the School's efforts to address one criterion that was not met in our 2012 Focused Evaluation Report: comprehensive design. Part of the current report also refers to the text of the 2009 CACB Visiting Team Report.

University

- The current president of Dalhousie University, Tom Traves, is retiring this summer and a new president, Richard Florizone, has been appointed.

Faculty of Architecture and Planning

- Following last year's exterior work on the east wing of our building, the exterior walls of the west wing are currently being repaired and new windows are being installed. The windows will have double glazing and thermal breaks, and will be operable at both studio levels for natural ventilation, especially during hot summer days. With CFI funds, a digital fabrication lab soon will be installed on the ground floor. This will enhance research in digital fabrication and also may benefit students. The university provided funds to update all of the Faculty's computer labs, with new computers and more recent software to support digital media in BEDS and MArch courses.
- The reappointment process for Christine Macy as Dean of the Faculty of Architecture and Planning is nearly complete. The School of Planning's new director, Andy Fillmore, formerly a senior planner with the Halifax Regional Municipality, resigned from the university after only a few months, returning to practice to take on a major position to develop Halifax's waterfront. A new internal search for a Planning director has been initiated. Conversations about strengthening relations between the two schools, especially in human resources and elective courses, will wait until the new director of the School of Planning has been appointed. Two Architecture faculty who were away on medical leave returned to full-time teaching in Fall 2012 and are doing well. One other faculty member who was on medical leave returned to a 50% load in Summer 2013.
- The Faculty of Architecture and Planning has developed a new strategic plan for the next five years, a product of four months of open discussions among faculty, staff, students, alumni, and practitioners in Architecture and Planning. This plan was approved by Faculty Council in May 2013.
- Last year the Nova Scotia Agricultural College in Truro became a new Faculty of Agriculture in Dalhousie University. Following this merger, a committee has been working towards establishing a new Master of Landscape Architecture programme in the Faculty of Architecture and Planning, in conjunction with the Faculty of Agriculture.

School of Architecture

- **BEDS/MArch Programme:** The School of Architecture is one of several professional schools in Dalhousie, including Engineering, Law, Dentistry, Medicine, and Health Professions. Like those other schools, it requires a low student-teacher ratio (12:1 in design courses) to support a multi-faceted curriculum and to develop professional skills and knowledge. The School of Architecture continues to operate with a trimester schedule that utilizes our facilities and support staff all year round.
- **Working with the Dean and the Vice President (Academic) / Provost,** the School conducted an international search for two Professors of Practice. These are three-year, renewable, 33%-FTE, non-tenure-track positions with a dual expectation for teaching and maintaining a healthy professional practice. In the past the School has hired local professionals as sessional instructors on a term-by-term basis that sometimes made staffing plans difficult. These new Professor of Practice positions offer longer-term staffing for courses. This type of position is common at other universities in the United States. The search committee shortlisted three excellent candidates and the Dean obtained university approval for an additional position that permitted all three candidates to be appointed.
- **The second last MArch term (M5)** includes a pair of courses: Thesis Preparation and Building Systems Integration for Design Thesis. In Fall 2012 there was a stronger effort to integrate work in these two courses, so that students would develop their thesis topic through both design and technology. This year we are organising these two courses around coordinated learning objectives to encourage students to develop their thesis through design as early as possible. Together, these two M5 courses in the fall term have six instructors for the thesis class of 30. At the beginning of the winter term, each M6 student is assigned a thesis supervisor and advisor.
- **BCBD Programme in The Gambia:** The objectives of the Bachelor of Community Building and Design programme at the University of The Gambia have been to contribute to the education of Gambians in the fields of planning, design, and construction; to enhance the scholarly profile of these disciplines in the country; and to contribute to national development in The Gambia. Professor Emeritus Grant Wanzel has been managing this programme since 2003. Recent graduates from Dalhousie and other Canadian universities have served as interns in The Gambia, funded by CIDA's IYIP program. During the past few years, a number of our faculty also have visited The Gambia to run hands-on workshops, advise on curricular and administrative matters, and serve as external critics for the final project. Now that the programme funding from CIDA has ended, the School of Architecture is looking for ways to continue as a consultant to the Gambia programme. We hope this will allow the pedagogical and research projects between the two schools to evolve over the next few years.

- **Botswana Programme:** This programme to educate students from Botswana operated from 1993 to 2011, in collaboration with the government of Botswana. Dalhousie University has awarded 30 Bachelor of Environmental Design Studies degrees and 24 professional Master of Architecture degrees to students from Botswana. The University of Botswana recently established its own Department of Architecture to educate architecture students from Botswana. Dalhousie's School of Architecture is working to have a continuing relationship with that new school, as well as with our alumni in Botswana. Professor Richard Kroeker is developing a research project with a local institution in a community in Botswana.
- **Exchange Programmes:** In 2012 the School of Architecture concluded its two student exchange agreements with the Peter Behrens School of Architecture in Duesseldorf, Germany, and the University of Strathclyde in Glasgow, Scotland. During these exchange programmes, Dalhousie MArch students travelled to these two countries but few students from Germany and Scotland came here. A new three-year student exchange programme has been approved with the Faculty of Architecture of the Lisbon Technical University, in Lisbon, Portugal. In Fall 2013 three Dalhousie MArch students will go to Lisbon and three graduate students from Lisbon will come to Dalhousie.
- In the BEDS and MArch programmes, term committees have been meeting regularly to organise all of the courses that are taught at a particular level. The courses have become more integrated, with coordinated topics, learning objectives, assignments, and due dates. This has improved communication and streamlined administration. It has also clarified pedagogical objectives and encouraged a more holistic approach by the students.
- In the BEDS programme, a 24" x 36" process portfolio requirement has been introduced into all four academic terms, B1 to B5. It expects students to record their daily research and design development in studio and other courses. This is intended to develop their awareness of design process. By reviewing it periodically throughout the term, instructors can understand how students are making decisions. It is also reviewed by a promotion committee at the end of each academic year. This process portfolio is physical during the first three terms and digital in the last term of the BEDS programme.
- The School of Architecture at Dalhousie University was invited to be one of five Canadian architecture schools participating in the Arctic Adaptations exhibition, the Canadian entry for the 2014 Venice Architectural Biennale that is being curated by Lateral Office in Toronto. This summer, two-thirds of the students in the M1 term are working on this project through a coordinated set of courses in design, technology, and humanities. This approach encourages a well-rounded understanding of conditions and opportunities in the Canadian North.

Section 2: Detailed Progress Report Since 2009/10

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Causes of Concern

1. The visiting team was struck by a unified teaching approach that favors analog over digital methods of representation, communication and experimentation. The team acknowledges this approach, and is aware of the recent addition of digital fabrication capacity and the fact that the school remains open to a variety of representational techniques. Still, the team must voice its strong concern over the relative lack of the application and exploration of digital techniques in the curriculum and in the student work displayed.

- A new Computer Committee has been reconfiguring the Faculty's computer and fabrication labs. Every new BEDS student is now required to have a laptop computer for design work, based on specifications prepared by the committee. In the BEDS and MArch programmes, all students are being introduced to software for 2D and 3D design, spreadsheets, graphic design, web design, image processing, and some 2D and 3D digital fabrication. A computer help desk, run by paid student assistants, was established to provide advice and instruction to students during studio hours and after hours, including evenings and weekends. The digital modelling and prototyping labs are in the process of being upgraded with funding from a CFI grant.

Facilities

- The Faculty workshop spaces, equipment, staffing and operating procedures have been reorganised and upgraded to integrate digitally- and manually-operated equipment in all shops (woodworking shop, CNC lab, and print shop). All classrooms now have a fixed digital projector. Three large portable monitors were purchased last year and are facilitating digital projections during reviews (including videos and animations) and reducing the amount of printing on paper.

- In September 2012, a three-day orientation for incoming BEDS students included workshops on the facilities and their operation. This was organised and delivered mainly by senior students from the Dalhousie Architecture Students Association, in collaboration with the Instructor in Digital and Manual Fabrication. This introduced the new students to digital and shop resources at the beginning of their studies. Additional workshops were offered in January as a second round of orientation. Software tutorials have been provided to these students throughout the winter and summer terms.

2. The team is not satisfied that the programme has dealt adequately with the deficiency in the area of comprehensive building design identified by the previous visiting team.

- The term committees have facilitated the integration of courses and learning objectives.
- Every MArch student now must complete at least one comprehensive design studio during the first two terms of the MArch programme.
- The M5 term (the first half of the thesis year) continues to include a mandatory six-credit-hour technology course in which students define and research a building system that addresses their thesis question and its associated design work. This promotes a more comprehensive investigation and a greater design resolution of thesis projects.
- Three of the four M1 Design studios this summer have co-requisite courses in humanities and/or technology that enable the design projects to be developed in a more comprehensive way. The summer design-build Free Labs for B3 and M1 students extend this integration through full-scale prototyping or on-site construction in a community.
- In Winter 2013, the B5 Design, B5 Building Systems Integration, and B5 Representation courses again focused on a comprehensive design project. At the end of the term each student also prepared a comprehensive portfolio of work from all three courses. The B5 History course provided additional support by studying the architecture of public institutions. For course outlines and examples of student work from B5 Design and BSI, please refer to the attached files.

3. While there have been significant improvements to the space and facilities in the Faculty of Architecture and Planning building, the Team must point out that some areas remain inaccessible. The Design Studios are overcrowded. The provisions for graduate students in particular are inadequate. The school requires additional space for lectures, classes, reviews, exhibitions and informal meetings. In a programme dedicated to the process of making, it is clear that the shops and fabrication facilities need to be expanded. ... For the Faculty of Architecture and Planning the key concern is to use the opportunity (plans for the Sexton Campus) to forge a stronger, more balanced and truly cross-disciplinary relationship between Planning, Architecture and Engineering.

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Section 3: Programme's Progress in Addressing Past Deficiencies

a) Causes of Concern from 2004 VTR

Human Resources

- Following the Director's appointment in January 2012, one tenure-track faculty member and three Professors of Practice were appointed. Together, these new appointments should lead to longer-term staffing stability and less overload teaching for current faculty members. One faculty member did not receive tenure and is about to leave the university.

b) Conditions not met in 2004 - Update

- The readjustment of global markets in 2009 affected pension funding, external giving, and the larger governmental context in which universities operate. In 2010, the province released a report on higher education in Nova Scotia. The result of these conditions is a new strategic planning process underway at the university level that seeks to address potential reductions in government funding, increased demands for accountability, and a national research strategy aimed to support economic growth. Each Faculty in the university is adjusting its strategic plan in light of this context.

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c) Compliance with the Conditions for Accreditation

- Gender Issues: The ratio of female-to-male students in the Architecture programme remains around 45:55. In 2012, BEDS admission offers were made equally to men and women.
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- Exhibitions: Prior to 2001, the Faculty of Architecture and Planning had an exhibition coordinator to mount and manage the exhibitions programme. Since then, exhibitions have been held primarily at the beginning of each term, in September, January and May, usually in the Exhibition Room in the heart of the Medjuck Building, but occasionally in other parts of the building. The requirements for large reviews in both Schools restrict the usage of the Exhibition Room to the first month of each term. As a result, a second exhibition venue, the Faculty Lounge Gallery, was inaugurated in 2009 to hold smaller exhibitions.

Miscellaneous

- The BEDS Humanities stream includes lectures on non-Western architectural traditions in several courses, involving architectural work in Africa, Japan, South America, and India, and including its influence on work by Western architects. Several graduate design studios, including this year's Arctic Adaptations project, have focused on different cultural and geographic settings. Some students have travelled to South America and Africa to carry out design projects for local communities there.

Yours truly,
Diogo Burnay
Director, School of Architecture

A-4• Human Resources Statistics Report • 2012– 2013

School or Program: Dalhousie University, School of Architecture (BEDS / MArch)

Professional Degree Accredited	Total nb of credits / degree	Total nb of terms / degree	Nb of credits / term	Nb of hours / credit	Total nb of hours / degree
• Master of Architecture degree	10	4	16	6	63
with a related pre-professional bachelor's degree	11	4	17	6	67
• Master of Architecture degree without a pre-professional requirement, and consisting of an undergraduate degree plus a minimum of three years of professional studies					
• Bachelor of Architecture degree					
minimum of five years of study, except in Quebec, where four years of professional studies follow two years of CEGEP studies					

Faculty Data	Faculty Credentials (highest degree only) Full-time (FT) + Part-Time (PT)													
	Ph.D or D.Arch		Post- Prof Ms		Prof. M.Arch		B.Arch		Other		Licensed architects		Studio teaching	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Regular Faculty	5		2	1	4		3		1	2	5	1	9	3
Men	3			1	3		3		1	2	3	1	4	3
Women	2		2		1						2		5	
Total FT Equivalent (FTE) Regular Faculty: Number of FT Regular Faculty + a figure equating PT Regular Faculty	14.5													
Typical FT teaching load / year	770 hours													
Other Faculty				2		10		2		6		7		7
• Visiting														
• Adjunct • Sessional • Lecturer				2		10		2		6		7		7
• Ph.D Candidate														
Men				1		7		2		6		5		4
Women				1		3						2		3
Total FT Equivalent (FTE) Other Faculty: a figure equating other faculty on the basis of a typical FT teaching load	11													
Total FTE Regular + Other Faculty	25.5													
Total Regular and Other Faculty who are licensed architects											13			
Total Regular and Other Faculty teaching in studio													19	
Nb of pre-professional studios taught by all Faculty for the year													20	
Nb of Masters studios taught by all Faculty for the year													15	

Student Data	Pre-professional degree				Master of Architecture degree or Bachelor of Architecture degree			
	Fall	Winter	Summer	Mean/yr	Fall	Winter	Summer	Mean/yr
Full-Time Students	123	121	57	100.3	63	71	87	73.3
Men (optional)	64	60	28	50.7	40	43	58	47
Women (optional)	59	61	29	49.7	23	28	29	26.6
Part-Time Students	0	0	0	0	6	7	7	6.6
Men (optional)	0	0	0	0	2	4	4	3
Women (optional)	0	0	0	0	4	3	3	3
Total Full-Time Equivalent (FTE) Students ¹	71.8	121	57	83.3	65	45.3	49/5	53.2
FTE Foreign Students ² (optional)	7	7	3	5.7	3	3	3	3
Students in Design Studio	59	121	57	79	63	36	49	49.3
Studio Ratio (Students in Design Studios / Nb studios taught for a year)	12:1				10:1			
	Fall	Winter	Summer	Total/yr	Fall	Winter	Summer	Total/yr
Number of applicants for a given term and total for a year	261	61	2	324	0	0	70	70
Number of entering students for a given term and total for a year	59	0	0	61	0	0	35	35
With advanced standing (optional)	0	2	0	2	0	0	0	0
Total Degrees Awarded-Expected for a given term and total for a year	58	0	0	58	25	15	0	40
Men (optional)	33	0	0	33	7	9	0	15
Women (optional)	25	0	0	25	18	7	0	25
Graduation Rate (%) ³	98%	-	-	98%	-	-	-	114%

* Co-op students are Full Time for Population and 1/5 FTE.

** Thesis Continuing students are Full Time Studio and 1/3 FTE.

¹ Full-Time Equivalent Students (FTE): Number of full-time students reported above + number of full-time equivalent for part-time students calculated on the basis of a full course load required to complete the program in the normal number of terms

4.6.6 Annual Report to CACB (2013–14)

A-4 • Human Resources Statistics Report • 2013–2014

School or Program: Dalhousie University, School of Architecture (BEDS / MArch)

Professional Degree, Accredited	Total credits / degree	Total terms / degree	Credits / term	Hours / credit	Total hours / degree
• Master of Architecture degree	10	4	2.5	6	63
with a related pre-prof. bachelor's degree (BEDS)	11	4	2.75	6	67
• Master of Architecture degree without a pre-professional requirement, and consisting of an undergraduate degree plus a minimum of three years of professional studies					
• Bachelor of Architecture degree					
minimum of five years of study, except in Quebec, where four years of professional studies follow two years of CEGEP studies					

Faculty Data	Faculty Credentials (highest degree only) Full-time (FT) + Part-Time (PT)													
	Ph.D or D.Arch		Post- Prof Ms		Prof. M.Arch		B.Arch		Other					
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
Regular faculty	5		1	1	4	1	3		1	2	5	2	9	3
Men	3			1	2	1	3		1	2	3	2	6	3
Women	2		1		2						2		3	
Total FT-Equivalent (FTE) regular faculty: Number of FT Regular Faculty + a figure equating PT Regular Faculty	14.5													
Typical FT teaching load / year	770 hours													
Other faculty				2		8		3		5		10		8
• Visiting														
• Adjunct • Sessional • Lecturer				2		8		3		5		10		8
• PhD candidate														
Men				1		4		2		5		5		3
Women				1		4		1				5		5
Total FT-Equivalent (FTE) other faculty: a figure equating other faculty on the basis of a typical FT teaching load	7.8													
Total FTE regular + other faculty	22.3													
Total regular and other faculty who are licensed architects											17			
Total regular and other faculty teaching in studio													20	
Pre-professional studios taught by all faculty for the year													20	
Master's studios taught by all faculty for the year													15	

Student Data	Pre-professional degree (BEDS)				Master of Architecture degree			
	Fall	Winter	Summer	Mean/yr	Fall	Winter	Summer	Mean/yr
Full-Time Students	116	118	59	97.67	82	79	66	75.67
Men (optional)	63	64	37	54.67	52	52	39	47.67
Women (optional)	53	54	22	43	30	27	27	28
Part-Time Students	0	0	0	0	0	0	0	0
Men (optional)								
Women (optional)								
Total full-time-equivalent (FTE) students ¹	106	145	59	103.33	73	43	132	82.67
FTE foreign students ² (optional)	6	4	3	4.33	4	4	3	3.33
Students in design studio	63	118	59	80	66	34	42	47.33
Studio ratio (students in design studios / studios taught for a year)	12:1				9.5:1			
Applicants for a given term and total for a year	223	33	3	n/a	0	0	70	n/a
Entering students for a given term and total for a year	63	0	2	n/a	0	0	41	n/a
With advanced standing (optional)		3						
Total degrees awarded/expected for a given term and total for a year	1	59	0	n/a	12	24	0	n/a
Men (optional)	1	33	n/a	34	10	18	0	28
Women (optional)	0	26	n/a	26	2	6	0	8
Graduation Rate (%) ³				95%				87%

¹ Full-Time Equivalent Students (FTE): Number of full-time students reported above + number of full-time equivalent for part-time students calculated on the basis of a full course load required to complete the program in the normal number of terms. Co-op students are Full Time for Population and 1/5 FTE. Thesis Continuing students are Full Time Studio and 1/3 FTE.

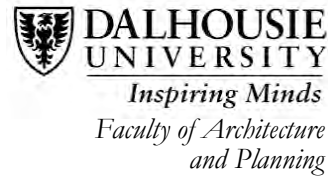
² FTE Foreign Students : Students included in Total FTE Students who are not Canadian citizens or landed immigrants.

³ Degrees awarded or expected / entering students at the beginning of the degree.

4.7 Focused Evaluation (2012)

4.7.1 Focused Evaluation Report to CACB (2012)

The 2009 Visiting Team Report required the School to submit a Focused Evaluation Report in 2012 to address three criteria that had not been met in 2009.



April 27, 2012

Canadian Architectural Certification Board
1 Nicholas Street, Suite 710
Ottawa, Ontario K1N 7B7

Dear Review Team members,

Thank you for this opportunity to submit work for your Focused Evaluation Review of the professional architecture program at Dalhousie University. The work we are submitting addresses two criteria for accreditation: building systems integration and comprehensive design. We feel these criteria are related, so this is reflected in our submission.

We have increased the presence and strength of Building Systems Integration at both the undergraduate and graduate levels. In the second last term (M5) of the Master of Architecture program we have replaced two elective courses with a new, mandatory six-credit-hour course, ARCH 5216: Building Systems Integration for Design Thesis. It runs from September to December, alongside ARCH 9007: Thesis Preparation. Together, these two courses are intended to provide a well-rounded foundation for each student's subsequent Thesis (ARCH 9008) during the winter term. In Fall 2011 the new BSI course was taught by three instructors. It included lectures, seminars, workshops, and tutorials in which students developed critical issues of building technology related to their thesis proposition. The ARCH 5216 course outline and a range of student work from Fall 2011 are included in our report.

At the undergraduate level, we have strengthened Building Systems Integration in the final term (B5) of the Bachelor of Environmental Design Studies program, which runs from January to April. Throughout this term, each student's design project serves as the common subject for an integrated set of three courses: ARCH 4005 Design, ARCH 4212 Building Systems Integration, and ARCH 4502 Representation. We feel this integrated approach contributes to comprehensive design and is appropriate to the academic level in the final term of our undergraduate program. At the end of the term each student submits a comprehensive report that assembles work from all three courses. The three course outlines and a range of student work from Winter 2012 are included in our report.

The B5 Building Systems Integration course (ARCH 4212) is taught by three instructors. It consists of lectures, workshops, and tutorials that define performance standards, teach performance modeling and testing methods, and study relevant historic and current cases related to specific building systems. Students learn a building energy modeling method that was developed at Dalhousie, then apply this to their studio projects. This energy modeling

method was developed in collaboration with internationally respected environmental engineers Joe Lynes and Trevor Butler (who is an instructor in the course). The energy model can be set up quickly at the schematic stage, then reiterated as the design develops, to help students make informed design decisions about siting, systems configuration, specification of building systems, and façade details.

The assignments in all three of these B5 courses have been coordinated to encourage a comprehensive approach to design development. With B5 Design and B5 Representation taking responsibility for certain topics, the B5 Building Systems Integration course now covers issues of building systems in greater depth. This has helped the student work achieve a higher level of resolution. We believe this prepares them better for the MArch program and for future practice.

The B5 Representation course (ARCH 4502) is taught by one instructor. It plays a strong role in equipping the students to research, edit, and utilize abstract information related to program and site. The course also helps students represent and develop the systems, details, and characteristics of their building design. This course includes lectures, tutorials, and reviews, with each student's design project serving as the subject for all of the assignments.

The B5 Design course (ARCH 4005) is taught by five instructors, each working with twelve students. In Winter 2012 all five studio groups worked with the same program and site, so that more attention could be placed on design development. This course included a series of design-related lectures for the whole class, group seminars, individual student tutorials, and two public exhibitions and reviews of the studio work, attended by the instructors and visiting critics.

During the past several years the School of Architecture has been pursuing curriculum integration at various levels in the BEDS/MArch program, so these developments in the B5 and M5 terms are part of a larger, ongoing effort. Addressing the issues of building systems integration and comprehensive design for the CACB has given added urgency and focus to this process.

Yours truly,



Diogo Burnay
Director, School of Architecture

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4.7.2 Focused Evaluation Team Report from CACB (2012)



2012 Focused Evaluation Team Report

Master of Architecture Program
Dalhousie University

The Canadian Architectural Certification Board

1 Nicholas Street, Suite 710

Ottawa (Ontario) Canada K1N 7B7

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I. Summary of Team Findings

1. Team Comments

The Focused Evaluation Team reviewed all material related to the Focused Evaluation, starting with the 2009 Visiting Team Report. The FE Team paid special attention to material submitted from courses ARCH 4005: Design and ARCH 4212: Building Systems Integration regarding the items that are the subject of this evaluation: Student Performance Criterion 12.22 – Building Systems Integration and Student Performance Criterion 12.29 Comprehensive Design. The material submitted for the other two courses (ARCH 5216: Building Systems Integration for Design Thesis and ARCH 4502: Representation) were deemed not to be directly relevant to the evaluation. Further, no supporting material was received for ARCH 9007: Thesis Preparation or thesis work itself, the FE Team is not clear as to whether or not there is currently a requirement for integrated design in the thesis project, as implied by the reference to ARCH: 5216 in the letter from Prof. Diogo Burnay, dated April 27, 2012. The FE Team also reviewed the Annual Report dated June 28, 2011, and the review of it by the Chair of the Visiting Team dated September 12, 2011. Finally, the FE Team reviewed all the course materials submitted in digital format. At the end of the FE review, the Team commends the Program for significant improvements in the FE subject areas. However, while the processes are in place, there is the continued need to develop the outcomes as required in the Student Performance Criteria.

II. Compliance with the Conditions for Accreditation

1. Team General Comments

The submitted material was generally well organized and followed the guidelines. However, there were some challenges in understanding the relationships between the various courses in question, as there are overlapping assignments. As noted above, some of the submitted course material was not directly relevant. A stronger understanding of the position of the courses in the curriculum, along with the outlines of other building science courses (eg. ARCH 4211: Building Systems Integration) would have been helpful. Further, more information (including interim handouts, lecture notes, etc.) for ARCH 4212: Building Systems Integration would have provided more clarity on course content and requirements.

2. Program Response to Focused Criteria Identified from Previous Visit

Student Performance Criteria:

SPC 12.22 - Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life-safety systems, building envelope systems, and building service systems into building design.

Met	Not Met
[x]	[]

Team Comments:

The ARCH 4212: Building Systems Integration course has suitable content (presumably in tandem with previous building science courses), and is well integrated with ARCH 4005: Design. As noted above, there was some difficulty in separating assignments between the two courses. The FE Team notes that there is strong emphasis placed on

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the first assignment (energy modeling), possibly to the detriment of other course assignments. In the submitted student work structural systems are generally straightforward, the FE Team noted many basic deficiencies in the design of building envelopes (eg. lack of insulation continuity, poorly resolved junctions, scale discrepancies, etc.).

12.29 Comprehensive design

Ability to produce an architecture project informed by a comprehensive programme, from schematic design through the detailed development of programmatic spaces, structural and environmental systems, life-safety provisions, wall sections, and building assemblies, as may be appropriate; and to assess the completed project with respect to the programme's design criteria.

Met	Not Met
[]	[x]

Team Comments:

The FE Team recognizes that the comprehensive design studio (ARCH 4005: Design) complies with the intent of Student Performance Criterion 12.29 as reflected in the course outline. However, based on the submitted student work the FE Team is not convinced that the students have successfully demonstrated ability in all requirements of the criterion. Final submissions of student work exhibit deficiencies that might have been remedied earlier in the term; the submitted low pass work is below what is considered a minimum standard.

III. Appendices

Appendix A: The Focused Evaluation Team

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Practitioner/Educator


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Practitioner (retired)

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University of Calgary
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Educator


IV. Report Signatures



Ivan Martinovic Team Chair
representing the educators and the practitioners



Anthony Butler
representing the practitioners



Graham Livesey
representing the educators

4.8 Dalhousie Undergraduate Calendar (2013–14)

Architecture

Location: School of Architecture
Dalhousie University
5410 Spring Garden Road
PO Box 15000
Halifax, NS B3H 4R2

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Undergraduate Secretary, School of Architecture

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Graduate Secretary, School of Architecture

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Undergraduate and Graduate Coordinator, School of Architecture

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Email: stephen.parcell@dal.ca

Professors Emeriti

Baniassad, E., BArch (Illinois), MA, PhD (Manchester), FRAIC
Jackson, A., DiplArch (Poly London), ARIBA
Wanzel, J. G., BArch, MArch (Toronto)

Professors

Cavanagh, E., BSc, BArch (McGill), PhD (Lehigh). Architectural design (teaching and practice); scholarship in coastal planning and history of technology; production of design-build projects for coastal communities, focusing on innovative construction methods.

Kroeker, R., BES (Manitoba), AADipl, ARCUK. Sustainable building strategies, community architecture; cultural continuity and invention, innovative construction in green wood, recycled materials, and earth formed structures.

MacKay-Lyons, B., BEDS, BArch (TUNS), MArchUD (UCLA), FRAIC, (Hon.) FAIA, NSAA, AAPEI, OAA. Private practice design work in private homes, urban design, public buildings, and artificial intelligence software design.

Macy, C., BA (Arch) (Calif.at Berkeley), MArch (MIT), Reg.Arch.WA. History, theory and criticism of modern architecture, representation of cultural identity in architecture, urban systems and infrastructure, temporary urbanism, lightweight and ephemeral architecture.

Mannell, S., BES, BArch (Waterloo), NSAA, OAA. Building construction, professional practice; the architecture of public works, post-war modern architecture, contemporary architectural criticism.

Parcell, S., BArch (Toronto), MArch (Cranbrook), PhD (McGill). Historical definitions of architecture; interdisciplinary alliances with architecture; history and theory of architectural representation.

Associate Professors

Bonnemaison, S., BSc (Concordia), BArch (Pratt), MSc(Arch) (MIT), PhD (UBC). Lightweight and tensile structures, motion studies in architecture, architectural installations, temporary urbanism of festivals, responsive environments and electronic textiles for architectural applications.

Burnay, D., DiplArch (Tech Univ of Lisbon), MSc (Arch) (Univ College London). Design practice in public architecture, contemporary architecture in the public realm, architectural tectonics.

Lilley, B., BES (Manitoba), AA Dipl. Ecological and programmatic strategies in design, technical implementation as architectural device, material research in glass, assemblies, and natural ventilation, modernism and aesthetics; computer simulations and cinematic representations.

Savage, N., BA (Alberta), BEDS, MArch (FP) (TUNS), NSAA. Private practice design work in residential buildings, public buildings, and affordable housing developments; architectural visualization and its graphic applications; building case studies.

Assistant Professors

Hudson, R., BSc, MArch, PhD (Bath). Process design, tool building, building information models.

Mullin, R., BEDS, MArch (FP) (TUNS). Detailing and significance of materials; landscape and buildings in coastal environments; community partnerships; design-build; representation in documentation, design, and construction.

Navarro Morales, M. E., BArch (Universidad de los Andes), MArch (Post-prof.) (McGill). History and theory of early modern architecture; relationships among architectural history, theory, and design.

Parsons, A., BSc (McGill), MES (Dalhousie), SMTB (MIT). Wood technology, wood lot management and the environmental impact of forest management practices, building performance of residential wood frame construction systems, timber frame systems.

Venart, C. A. S., Cert. Eng. (Mt. A), BFA (Toronto), MArch (SCI-Arc), AK NWF (prof. reg. Germany). Experiential, spatial, and phenomenological methods of documenting, representing and analyzing site, architecture, urban and natural environments; private design practice; multi-disciplinary design strategies for urban and architectural competitions and projects; publication and exhibition design.

Lecturer

Kelly, P., BSc (Dalhousie), MSc (TUNS). The use of multimedia tools in architectural design, geographical information system, and astroarchaeology (astronomical alignments of ancient structures).

Cross-Appointed Faculty

Palermo, F., BArch (Toronto), MArch UD (Harvard) - Planning

Adjunct Professors

Burns, C., BA (Bryn Mawr), BA, MArch (Yale)

Carter, B., DiplArch (Nottingham), MArch (Toronto); SUNY Buffalo

Kahn, A., BA (Bennington), MArch (Princeton); Columbia University

Levitt, J., BA, BArch (Toronto)

Sassenroth, P., DiplArch. (Tech Univ Berlin), Fachhochschule Bielefeld

Thün, G., BA (Western), BES, BArch (Waterloo), MUD (Toronto); University of Michigan

Instructor

Jannasch, E., BEDS (TUNS), MArch (FP) (Dalhousie). History and future of building; relationships between film design and material culture.

I. Introduction

The School of Architecture, which is part of the Faculty of Architecture and Planning at Dalhousie University, was established in 1961 to serve the Atlantic region. While it continues to fulfil its original mandate, the School also contributes nationally and internationally to architecture through its dynamic faculty and committed student body. Its primary aim is to educate individuals who intend to become professional architects. The School's professional degree program includes the two-year Bachelor of Environmental Design Studies degree and the two-year Master of Architecture degree. Most of the program is conducted within the School of Architecture by full-time faculty members. It also includes

two co-op work terms in which students gain practical experience in an architectural office. The curriculum enables architectural education and practice to develop in parallel.

Design

The central activity of the professional degree program is architectural design - the creative study of buildings and cities. In the School's design studios, students examine historical and contemporary buildings in Canada and abroad, and respond through the design of new architectural projects. From the core studies of the undergraduate program to the elective studies and design thesis of the graduate program, students learn to rely on their artistic skill, their knowledge of history and technology, their social and cultural awareness, and their critical imagination. Architecture is a multi-disciplinary profession, with alliances to the fine arts, the humanities and technologies, and many undergraduate disciplines provide an effective entry into architecture. Conversely, architectural studies provide an excellent foundation for careers in a variety of design-related fields.

Facilities

The School is housed in the original home of the Nova Scotia Technical College, built in 1909 and renamed the Ralph M. Medjuck Building in 2005. Corresponding to the School's emphasis on architectural design, one-third of the building is devoted to studio spaces that are open to students 24 hours a day. The building also has several computer labs with a wide array of equipment, a fully-equipped woodworking shop, an experimental construction lab, a digital modeling shop, photographic and GIS facilities, and a large exhibition hall. The University Library's architecture collection is located nearby and a student resource centre is housed within the Faculty.

Co-op Work Terms

The School's professional degree program includes two work terms that provide students with practical experience in building design and responsible professional practice. The School's Co-op Program has been operating since 1970, and the Faculty of Architecture and Planning's Co-op Office assists students in finding suitable work term placements. In recent years, Architecture students have been employed in every province and territory in Canada, and approximately one-third have chosen to work abroad - most recently, in Argentina, Austria, China, Egypt, England, Germany, Iran, Japan, Netherlands, Norway, Singapore, Switzerland, and the United States.

Accreditation

The School's professional degree program is fully accredited by the Canadian Architectural Certification Board (CACB). The entire six-year program consists of two years of general studies at a recognized university, followed by two years of undergraduate study at the School of Architecture (BEDS) and two years of graduate study at the School of Architecture (MArch).

In Canada, all provincial associations recommend a degree from an accredited professional degree program as a prerequisite for licensure. The Canadian Architectural Certification Board, which is the sole agency authorized to accredit Canadian professional degree programs in architecture, recognizes two types of accredited degrees: the Bachelor of Architecture and the Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards. Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Professional Registration

After receiving the professional degree, a graduate may fulfil additional requirements for professional registration, including a period of post-graduate practical experience and the completion of registration examinations. In Canada, these additional requirements are determined by provincial organizations that are empowered to register an individual for professional practice. An American citizen who graduates from the School's MArch program is qualified to become an architectural intern in the United States and to complete the examination for professional registration there. Applicants from other countries are advised to contact their national architectural organization about requirements for professional registration.

II. Classes Open to Non-Majors

The School of Architecture offers several classes that are open to all students in the university:

- ARCH 1000X/Y.06: Introduction to Architecture
- ARCH 1200X/Y.06: Science of the Built Environment
- ARCH 2000.03: Visual Thinking A
- ARCH 2001.03: Visual Thinking B
- ARCH 2025.03: Design Drawing

Please consult the undergraduate calendar for class descriptions.

Please consult the university's academic timetable for available classes.

Individuals who are not currently registered at Dalhousie University should refer to the university's regulations in this calendar for details on Special Student status.

III. Undergraduate Degree Program

The Bachelor of Environmental Design Studies program description is included here in the graduate calendar to provide an overview of the entire professional degree program in the School of Architecture, which includes both the BEDS and the MArch degrees. Please refer to the undergraduate calendar for undergraduate regulations.

Bachelor of Environmental Design Studies

BEDS is a two-year, full-time, pre-professional program for a student who has already completed at least two years of general studies in subjects other than architecture. It consists of four academic terms in residence and a four-month work term. The BEDS degree recognizes a student's successful completion of a minimum of four years of university study, including two at the School of Architecture.

The BEDS program consists primarily of required classes in Design, Humanities, Technology, Representation, and Professional Practice. These classes provide a base of academic knowledge and design skill from which a student may proceed to a graduate program. The BEDS program leads to the MArch program, as well as to the Faculty's other graduate programs in Environmental Design Studies and Planning. A BEDS graduate may also choose to continue into another related field in design, environmental studies, management, etc., at Dalhousie or elsewhere.

For Undergraduate admission requirements, see the undergraduate calendar or the School of Architecture website: <http://archplan.dal.ca>.

IV. Undergraduate Classes Offered

A. Professional Degree Program

The following chart illustrates the distribution of terms throughout the four years of the professional degree program in the School of Architecture. Following the two-year general studies prerequisite, the next two years are Bachelor of Environmental Design Studies and the final two years are Master of Architecture.

Fall	Winter	Summer
Year 3 - BEDS B1 (academic term)	B2 (academic term)	Year 4 - BEDS B3 (academic term)
B4 (work term)	B5 (academic term)	Year 5 - MArch M1 (academic term)
M2 (academic term)	M3 (work term)	M4 (work term)
Year 6 - MArch M5 (academic term)	M6 (academic term)	

B. Bachelor of Environmental Design Studies

Year 3 - Term B1 (Fall)

- ARCH 3001.06: Design
- ARCH 3104.03: Foundations in Architectural History and Theory
- ARCH 3207.03: Building Technology
- ARCH 3301.01: Professional Practice
- ARCH 3501.03: Representation

Year 3 - Term B2 (Winter)

- ARCH 3002.06: Design
- ARCH 3105.03: Architectural History and Theory - 20th Century
- ARCH 3208.03: Building Technology

- ARCH 3302.01: Professional Practice
- ARCH 3502.03: Representation

Year 4 - Term B3 (Summer)

- ARCH 4003.03: Design
- ARCH 4004.03: Free Lab
- ARCH 4110.03: Architectural History and Theory - 14th-18th Century
- ARCH 4211.03: Building Systems Integration
- ARCH 4303.01: Professional Practice
- ARCH 4501.03: Representation

Year 4 - Term B4 (Fall)

- ARCH 8892.03: Professional Practice (Co-op Work Term)

Year 4 - Term B5 (Winter)

- ARCH 4005.06: Design
- ARCH 4111.03: Architectural History and Theory - 19th Century
- ARCH 4212.03: Building Systems Integration
- ARCH 4304.01: Professional Practice
- ARCH 4502.03: Representation

V. Undergraduate Class Descriptions

Third-year and fourth-year classes are restricted to students in the BEDS program.

ARCH 1000X/Y.06: Introduction to Architecture.

This class introduces architectural theory and practice through enduring themes in the discipline. It emphasizes design as a method of study, considers the materiality of buildings, and interprets the built environment as an expression of culture.

NOTE: Credit can only be given for this class if X and Y are completed in consecutive terms and partial credit cannot be given for a single term.

INSTRUCTOR(S): P. Henry

FORMAT: Lecture/seminar

ARCH 1200X/Y.06: Science of the Built Environment.

This class introduces a broad range of scientific principles that influence the construction and environment of buildings. It studies topics such as mechanics, ecology, light, heat, and sound. The class uses a "common-sense" approach involving graphic images, practical understanding, and problem-solving; a background in science or mathematics is not required.

NOTE: Students taking this class must register in both X and Y in consecutive terms; credit will be given only if both are completed consecutively.

INSTRUCTOR(S): D. Pitcairn

FORMAT: Lecture

ARCH 2000.03: Visual Thinking A.

Architects, scientists, political activists, manufacturers, and others employ a variety of visual tools to study and engage with the world. Students in this class learn to evaluate maps, simple technical drawings, and other visual devices, and use them to analyze actual situations and to generate and present innovations. Hands-on work is emphasized, but no prior experience in drawing or design is needed. With its focus on conceptualizing the concrete, outer world, this class is a useful complement to ARCH 2001.03.

INSTRUCTOR(S): K. Kam

FORMAT: Lecture/seminar

PREREQUISITE: Completion of first year university or permission of instructor

ARCH 2001.03: Visual Thinking B.

As the world becomes more visually oriented, a critical appreciation of visual information becomes indispensable. Students use charts, diagrams and other means of externalizing, developing, and sharing ideas. In doing so, they learn to analyze the form of graphic information as well as the content. Hands-on work is emphasized, but no prior experience in drawing or design is needed. This class is a more abstract and reflective complement to ARCH 2000.03.

INSTRUCTOR(S): K. Kam

FORMAT: Lecture/seminar

PREREQUISITE: Completion of ARCH 2000.03 or permission of instructor

ARCH 2025.03: Design Drawing.

This class enables students to enhance their design literacy skills through attention to graphic design, layout, composition, and typography. Students will gain experience in a range of techniques in design drawing and portfolio presentation.

INSTRUCTOR(S): L. Tondino

FORMAT: Lecture/lab

PREREQUISITE: ARCH 1000, PLAN 1002 or permission of instructor

CROSS-LISTING: PLAN 2025.03

ARCH 3001.06: Design.

This class studies basic principles of architecture through studio projects using drawings and models. Students design elementary building forms beginning with the room and the pavilion, on various sites. Working with basic building elements of floor, wall and roof, students consider architectural composition and materials at the three scales of detail, building, and site. The class includes historical design studies to understand how other architects have responded to similar problems.

INSTRUCTOR(S): Staff
FORMAT: Lecture/studio
RESTRICTION: Year 3 BEDS students

ARCH 3002.06: Design.

This class studies principles of architecture by focusing on the design of the house. Building on topics from ARCH 3001, it considers issues of composition (structural, volumetric, and spatial), building program, interior environment, and relations to community context and ecological surroundings. The class includes historical design studies to understand how other architects have responded to these issues.

INSTRUCTOR(S): Staff
FORMAT: Lecture/studio
RESTRICTION: Year 3 BEDS students

ARCH 3104.03: Foundations in Architectural History and Theory.

This class introduces basic topics in architecture and interpretive methods in architectural research. It focuses on selected buildings and the role of the architect in the ancient and medieval eras. To develop research skills and architectural awareness, students interpret local buildings through direct experience and study distant and historical buildings through publications.

INSTRUCTOR(S): S. Parcell
FORMAT: Lecture/seminar
RESTRICTION: Year 3 BEDS students

ARCH 3105.03: Architectural History and Theory - 20th Century.

This class is a survey of late modern architecture, focusing on Europe and North America. Buildings and urban projects are situated in their social and political contexts and the theoretical constructs that influenced their development. Students are exposed to extramural archives and resources to research local modern buildings and their architects.

INSTRUCTOR(S): C. Macy
FORMAT: Lecture/seminar
RESTRICTION: Year 3 BEDS students

ARCH 3207.03: Building Technology.

This class studies aspects of building technology that act as primary generators of architectural form: structure, material, light and sound. Construction process is examined in terms of materials, methods and sequences. Principles of building structure and methods of structural analysis are introduced. The physics and perception of light in built environments are studied. Quizzes and tests are complemented by studio exercises.

INSTRUCTOR(S): E. Jannasch
FORMAT: Lecture/studio
RESTRICTION: Year 3 BEDS Students

ARCH 3208.03: Building Technology.

This class studies aspects of building technology that mediate the relationship between interior and exterior environments. Building materials studies include structural and environmental properties, constructional implications, and principles of assembly and jointing. The principles of heat flow, air flow and moisture flow in building enclosures are presented. Students undertake a series of design exercises applying knowledge of topics studied in the class.

INSTRUCTOR(S): E. Jannasch
FORMAT: Lecture/studio
RESTRICTION: Year 3 BEDS students

ARCH 3301.01: Professional Practice.

This class introduces the role and place of the architect in society, with an emphasis on the development of the profession through history. It also studies representation methods employed by architects and their implications for design.

INSTRUCTOR(S): S. Fitzgerald
FORMAT: Lecture/seminar
RESTRICTION: Year 3 BEDS students

ARCH 3302.01: Professional Practice.

In this week-long module students learn about the architect in society; the political, social, economic and ethical environments in which architects practice; and an introduction to office organization and project management.

INSTRUCTOR(S): Staff
FORMAT: Lecture/seminar
RESTRICTION: Year 3 BEDS students

ARCH 3501.03: Representation.

This class studies fundamental concepts, techniques, and applications of architectural representation. class work involves freehand drawing, orthographic drawing, model making, and digital media. Drafting and modeling equipment are required.

INSTRUCTOR(S): L. Katsepontes
FORMAT: Lecture/studio
RESTRICTION: Year 3 BEDS students

ARCH 3502.03: Representation.

This class builds on the principles of drawing, modeling, imaging, and composition studied in ARCH 3501. It emphasizes manual skills and concepts of the 2D and 3D interplay in drawing, imaging, and spatial form. Topics include construction of drawings and material devices, tone, colour, composition, perspective, and atmospheric phenomena.

INSTRUCTOR(S): Staff
FORMAT: Lecture/studio
RESTRICTION: Year 3 BEDS students

ARCH 4003.03: Design.

This class studies principles of architecture through the design of a public building. Building on previous courses, it includes the organization of a public program and issues of context and interpretation. As an intensive studio it encourages students to focus on design intentions and to develop an awareness of design process.

INSTRUCTOR(S): Staff
FORMAT: Lecture/studio
RESTRICTION: Year 4 BEDS students

ARCH 4004.03: Free Lab.

To complement studio-based learning, this class is an experimental hands-on workshop in design led by an instructor. Investigations of a particular architectural topic may include design-and-build, documentary work, landscape installations, community design projects and interdisciplinary work. Projects may be done locally or involve travel to a distant site.

INSTRUCTOR(S): Staff
FORMAT: Lecture/studio
RESTRICTION: Year 4 BEDS students

ARCH 4005.06: Design.

This class studies advanced principles of architectural design through the design of a medium-sized institutional building. Elaborating on topics from the previous design courses, students organize a complex program on an urban site and develop a project that uses building technology strategically and engages relevant issues in architectural

history and theory. Emphasis is also placed on fluency in architectural representation.

INSTRUCTOR(S): Staff
FORMAT: Lecture/studio
RESTRICTION: Year 4 BEDS students

ARCH 4110.03: Architectural History and Theory - 14th-18th Century.

This class studies significant buildings and the role of architecture from the Renaissance to the Enlightenment, mainly in Europe. It follows the transition from master builder to architect, and the humanist search for order and its manifestation in built form. Students analyze the design of significant buildings by studying historical documents and making interpretive drawings and models.

INSTRUCTOR(S): M.E. Navarro
FORMAT: Lecture/seminar
RESTRICTION: Year 4 BEDS students

ARCH 4111.03: Architectural History and Theory - 19th Century.

This class studies impacts of industrialization on architecture and the city in nineteenth-century Europe and North America. It considers major urban transformations in their socio-political context. Students examine primary and secondary sources to develop skills in research and criticism.

INSTRUCTOR(S): S. Bonnemaïson

FORMAT: Lecture/seminar

RESTRICTION: Year 4 BEDS students

ARCH 4211.03: Building Systems Integration.

This class studies the integration of building structural and enclosure systems in architectural design. Long span structural systems and lateral forces are examined, including their interaction with the enclosure system. Building enclosure studies include the performance of materials in assemblies, the performance of the building envelope, and the sequence of construction. The integration of structure and enclosure is examined through the construction detail. Students complete case studies and design projects integrating structure and enclosure in buildings.

INSTRUCTOR(S): R. Hudson

FORMAT: Lecture/studio

RESTRICTION: Year 4 BEDS students

ARCH 4212.03: Building Systems Integration.

This class studies performance standards related to human activities in buildings, and the systems and configurations required to support those activities. Building systems are considered in relation to climate, urban situation, and the natural environment. Principles of systems thinking, as well as the use of physical and computational modeling methods, are applied to the comprehensive design of a building to achieve defined performance standards and to consider issues of sustainability with regard to energy balance, water conservation, and component materials.

INSTRUCTOR(S): R. Kroeker, R. Hudson

FORMAT: Lecture/studio

RESTRICTION: Year 4 BEDS students

ARCH 4303.01: Professional Practice.

This class introduces contemporary office practices and project delivery including marketing, contracts, project phases and contract administration. The class also introduces issues related to the co-op work term, including job placement and the role of the student in a professional office.

INSTRUCTOR(S): B. Nycum

FORMAT: Lecture/seminar

RESTRICTION: Year 4 BEDS students

ARCH 4304.01: Professional Practice.

In this week-long module students learn about the architect in society; professional ethics; models of practice; legal aspects of practice; authorities having jurisdiction over building; finance and costing techniques; and internship.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Year 4 BEDS students

ARCH 4501.03: Representation.

This class studies the expressive use of manual and digital media to present design work to various audiences, including the architectural community and the public. Topics include image editing, rendering, and the integration of text, image, and model. Design work may be presented in an exhibition installation, printed book, and/or online portfolio.

INSTRUCTOR(S): R. Mullin

FORMAT: Lecture/studio

RESTRICTION: Year 4 BEDS students

ARCH 4502.03: Representation.

This class studies advanced strategies of representation. It promotes the fluent use of manual and digital media in design development, guided by architectural intentions and an understanding of architectural history, theory, and technology.

INSTRUCTOR(S): S. Parcell

FORMAT: Lecture/studio

RESTRICTION: Year 4 BEDS students

ARCH 8892.03: Professional Practice (Co-op Work Term).

A student works in some aspect of the profession for a total of 500 hours to be accomplished in no less than 12 weeks, and completes a research report or assignment. Work placements are coordinated by the co-op coordinator for

Architecture and must be approved by the School. In exceptional circumstances a student may apply to satisfy up to 500 hours of the time requirement through supervised research related to professional practice.

RESTRICTION: Year 4 BEDS students

Graduate Degree Programs

A. Master of Architecture

Master of Architecture is a two-year, full-time program consisting of four academic terms in residence and an eight-month work term. It includes required classes that complete the core requirements for the School's professional degree program. Elective classes also enable a student to focus on a particular area of study such as housing, urban design, history and theory, building technology, environmental design, or computer applications. In the final year each student works on a design thesis, supervised by a faculty member.

The MArch program begins in May. Most transfer students enter in January to take several undergraduate classes during the winter term before applying for MArch admission.

B. Master of Architecture (Post-Professional)

Master of Architecture (Post-Prof.) is a one-year program for a student who has already obtained a professional degree in architecture. It may be taken through full-time or part-time study. Subject areas each year depend on faculty availability. For available subjects in 2013-2014, please refer to the "Graduate Programs" page on the School of Architecture Website.

Two options are available for completing the MArch (Post-Prof.) program:

1. Eight half-credits of classes plus a MArch (Post-Prof.) Major Project equivalent to two half-credits.
2. Six half-credits of classes plus a MArch (Post-Prof.) Thesis equivalent to four half-credits.

C. Master of Environmental Design Studies

Master of Environmental Design Studies is a one-year, non-professional program for a student who has completed an undergraduate degree in environmental design or a related field but does not intend to become a professional architect. It may be taken through full-time or part-time study. Subject areas each year depend on faculty availability. For available subjects in 2013-2014, please refer to the "Graduate Programs" page on the School of Architecture Website.

Two options are available for completing the MEDS program:

1. Eight half-credits of classes plus a MEDS Major Project equivalent to two half-credits.
2. Six half-credits of classes plus a MEDS Thesis equivalent to four half-credits.

VI. Graduate Admission Requirements

A. Minimum Academic Requirements

Candidates for all graduate programs must meet the minimum admission requirements of the Faculty of Graduate Studies.

Master of Architecture

Admission is based mainly on the applicant's design portfolio and academic record. For an applicant to be considered, a minimum of four years (eight academic terms) of university classes is required, including architectural studies equivalent to the Dalhousie BEDS degree, with a minimum B average (3.00 GPA) during the last two years (10 credits). A minimum B average in architectural design classes is also required. In assessing an application, the Admissions Committee looks for strong evidence of readiness to pursue graduate studies in design, humanities, technology, and professional practice. For external applicants, the committee looks for strengths equivalent to standards at the end of Dalhousie's BEDS program.

The Admissions Committee assesses transfer credits and recommends the level at which an applicant is eligible to enter the professional degree program. To meet professional accreditation standards, the committee cannot offer a level of entry that would permit a student to obtain the professional degree with less than six full years of university, including two years of general studies. An applicant who is ineligible for Master of Architecture admission may be offered entry at an advanced level in the BEDS program or may be required to take qualifying classes.

Master of Architecture (Post-Professional)

An applicant must have a professional degree in architecture with high academic standing from a recognized university. Admission is based on the applicant's design portfolio, academic record and statement of intent, regarding one of the graduate positions announced on the School of Architecture Website. An application that does not specify an available position will not be accepted.

Master of Environmental Design Studies

An applicant must have an undergraduate degree with high academic standing from a recognized university. This degree must be either a Bachelor of Environmental Design Studies degree, a Bachelor's degree with honours, or a Bachelor's degree with a major in a subject related to the applicant's proposed field of study in the MEDS program. Admission is based on the applicant's academic record and statement of intent, regarding one of the graduate positions announced on the School of Architecture Website. An application that does not specify an available position will not be accepted.

B. Documents

An external applicant to one of the School's graduate degree programs must submit all of the following documents before the application can be reviewed:

1. To be submitted to the Registrar's Office:

Admissions, Registrar's Office
Dalhousie University
PO Box 15000
Halifax, NS B3H 4R2

- graduate application form
- the appropriate application fee (see Graduate Studies Fees in this calendar); To confirm receipt of the items above, please contact the Registrar's Office: (902) 494-2450.

2. To be submitted to the School of Architecture:

Admissions, School of Architecture
Dalhousie University
5410 Spring Garden Road
PO Box 15000
Halifax, NS B3H 4R2

MArch applicants:

- an official academic transcript from all previous post-secondary institutions;
- evidence of competency in English for applicants whose native language is not English (see Graduate Studies Admission Requirements in this calendar);
- a letter describing your background, your interest in the MArch program, your proposed area(s) of specialization in the MArch program (e.g., housing, urbanization, building construction, environmental systems, history/theory, digital media), and a possible thesis topic.
- a printed portfolio of design work that demonstrates the applicant's architectural design ability. This portfolio will not be returned.
- two letters of recommendation, including at least one from an academic instructor with close personal knowledge of the applicant's academic background. Each recommendation must be submitted on a Confidential Reference Letter form.

MArch (Post-Prof.) and MEDS applicants:

- graduate application form (Part A - copies 2 and 3) and supplementary application form (Part B);
- an official academic transcript from all previous post-secondary institutions;
- evidence of competency in English for applicants whose native language is not English (see Graduate Studies Admission Requirements in this calendar);
- a letter that indicates the graduate position for which the applicant is applying (selected from the "Graduate Positions" page on the School of Architecture Website), summarizes the applicant's previous academic / work in this area, and describes his/her career aspirations;
- MArch (Post-Prof.) applicants should include a portfolio of advanced architectural design work, especially work done in the proposed subject area. For MEDS applicants, a design portfolio is optional.
- two letters of recommendation, including at least one from an academic instructor with close personal knowledge of the applicant's academic background. Each recommendation must be submitted on a Confidential Reference Letter form.

To confirm receipt of the items above, please contact the Graduate Architecture Secretary, at grad.arch@dal.ca or by telephone (902) 494-3973. For additional application instructions, please refer to the School of Architecture website: archplan.dal.ca

Dalhousie Year four BEDS students who apply directly to the MArch program are required to submit an application form and a statement about the proposed area of focus in the graduate program to the Architecture office by February 1, followed by a design portfolio at the end of the winter term. An application fee, transcripts, introductory letter, and letters of recommendation are not required.

A. Application Deadline

For the Master of Architecture program, the deadline for applications from Canada and the United States is February 1. The deadline for applications from all other countries is December 1.

Transfer students with a pre-professional architecture degree who may not have completed classes that are equivalent to all required Dalhousie BEDS subjects should apply by October 1 and anticipate taking one or more undergraduate classes in the winter term.

VII. Graduate Regulations

School of Architecture Regulations

In addition to the Faculty of Graduate Studies regulations in this calendar, refer to the 'Current Students' section of the School of Architecture Website for academic regulations.

VIII. Graduate Classes Offered

A. Master of Architecture

Year 5 - Terms M1 and M2 (Summer and Fall)

- two core classes in Design (ARCH 50xx.06 series)
- two core classes in Humanities (ARCH 51xx.03 series)
- two core classes in Technology (ARCH 52xx.03 series)
- two graduate electives (ARCH 5xxx.03 or ARCH 6xxx.03)

Year 5 - Terms M3 and M4 (Winter and Summer)

- ARCH 5308.03: Professional Practice (Co-op Work Term)
- ARCH 5309.03: Professional Practice (Co-op Work Term)

Students extending their work term register for ARCH 5310.00: Co-op Work Term Continuation.

Before entering Year 6, a student must pass a Year 5 review to confirm that all Year 5 requirements have been completed.

Year 6 - Term M5 (Fall)

- ARCH 5216.06: Building Systems Integration for Design Thesis
- ARCH 9007.06: MArch Thesis Preparation
- one graduate elective (ARCH 5xxx.03 or ARCH 6xxx.03)

Year 6 - Term M6 (Winter)

- ARCH 5311.03: Professional Practice
- ARCH 9008.06: MArch Thesis
- one graduate elective (ARCH 5xxx.03 or ARCH 6xxx.03)

Graduate Classes

Core Classes - Design

- ARCH 5002.06: Urban Housing Studio
- ARCH 5003.06: Adaptive Reuse Studio
- ARCH 5004.06: Urban Systems Studio
- ARCH 5005.06: Material Detail Studio
- ARCH 5006.06: Light Frame Building Studio
- ARCH 5007.06: Landscape Studio
- ARCH 5009.06: Ephemeral Architecture Studio
- ARCH 5010.06: Public Architecture Studio
- ARCH 5011.06: Coastal Studio
- ARCH 5012.06: Urban Program Studio

Core Classes - Humanities

- ARCH 5102.03: Housing Theory
- ARCH 5103.03: Residential Real Estate Development

- ARCH 5104.03: Urban Systems
- ARCH 5105.03: History and Theory of Cities
- ARCH 5106.03: International Sustainable Development
- ARCH 5107.03: Theory and the Built Environment
- ARCH 5108.03: Architectural Theory of the Enlightenment
- ARCH 5109.03: Ephemeral Architecture
- ARCH 5110.03: Architectural Exhibitions
- ARCH 5112.03: Documentation and Conservation of the Modern Movement in Architecture
- ARCH 5113.03: Technology, Culture and Society
- ARCH 5198.03: Humanities Seminar

Core Classes - Technology

- ARCH 5202.03: From Timber to Lumber
- ARCH 5203.03: From Lumber to Structure
- ARCH 5204.03: Composite Materials
- ARCH 5207.03: Light and Material
- ARCH 5208.03: Acoustics
- ARCH 5209.03: Energy Efficient Design
- ARCH 5210.03: Life Cycle Analysis
- ARCH 5211.03: The Construction Detail
- ARCH 5212.03: From Principle to Detail
- ARCH 5213.03: Facades
- ARCH 5214.03: Tensile Architecture
- ARCH 5215.03: Fabrication
- ARCH 5217.03: Innovation in Computers and Building
- ARCH 5218.03: Site and Material Processes
- ARCH 5219.03: Technology of Heritage Conservation
- ARCH 5298.03: Technology Seminar

Electives

- ARCH 6001.03: Design Seminar
- ARCH 6002.03: Free Lab
- ARCH 6121.03: Architecture and Archaeoastronomy
- ARCH 6122.03: Humanities Seminar
- ARCH 6209.03: Material Investigation
- ARCH 6210.03: Material Investigation in Wood
- ARCH 6211.03: Technology Seminar
- ARCH 6215.03: Earth Construction
- ARCH 6216.03: Natural Finishes
- ARCH 6304.03: Entrepreneurship
- ARCH 6305.03: Permission to Build
- ARCH 6306.03: Professional Practice Seminar
- ARCH 6501.03: Graphic Design in Architecture
- ARCH 6502.03: Painting in Architecture
- ARCH 6503.03: Photography in Architecture
- ARCH 6504.03: Montage in Architecture
- ARCH 6505.03: Multimedia in Architecture
- ARCH 6506.03: Spatial Constructions in Digital Video
- ARCH 6507.03: Language as Representation
- ARCH 6508.03: Alternatives to Perspective
- ARCH 6509.03: Digital Form
- ARCH 6510.03: Architectural Documentation and Analysis
- ARCH 6511.03: Documentation of Historic Buildings
- ARCH 6512.03: Developments in Architectural Representation
- ARCH 6513.03: Representation Seminar

For a graduate elective, a student may take a class offered by another department at Dalhousie University. The subject need not be directly related to architecture, but must be at a graduate level or equivalent. A maximum of two electives may be undergraduate classes that have been elevated to a graduate equivalent by the instructor and approved by the School and by Graduate Studies. With a Letter of Permission, a student may also take a class at another university, if the class is not available at Dalhousie University.

B. Master of Architecture (Post-Professional)

- ARCH 7001.04: MArch (Post-Prof.) Major Project
- ARCH 7003.00: Continuation - MArch (Post-Prof.) Major Project
- ARCH 9002.08: MArch (Post-Prof.) Thesis
- ARCH 9005.00: Continuation - MArch (Post-Prof.) Thesis

Other available classes are listed in the Master of Architecture section above and in the Planning section of this calendar.

C. Master of Environmental Design Studies

- ARCH 7002.04: MEDS Major Project
- ARCH 7004.00: Continuation - MEDS Major Project
- ARCH 9003.08: MEDS Thesis
- ARCH 9006.00: Continuation - MEDS Thesis

Other available classes are listed in the Master of Architecture section above and in the Planning section of this calendar.

IX. Graduate Class Descriptions

Class Numbers

The first digit of an ARCH class number indicates whether it is an MArch core class (5), an elective (6), MArch (Post-Prof)/MEDS class (7), or Thesis (9). The second digit indicates the area of study: Design (0), Humanities (1), Technology (2), Professional Practice (3), or Representation (5). Classes have various credit-hour extensions (03-06) that indicate the approximate class hours each week and the appropriate balance of subjects for professional accreditation.

Not all classes are offered every year. Please consult the current timetable for this year's offerings.

ARCH 5002.06: Urban Housing Studio.

This studio explores the aesthetic, tectonic, social/cultural and economic challenges presented by contemporary high-density, mixed-use development. The relationships of architecture to urbanism, and building to city, will be explored through exemplary precedents and the design of housing and its associated commercial, institutional, and recreational components.

INSTRUCTOR(S): J. G. Wanzel

FORMAT: Studio

RESTRICTION: Graduate Students - Architecture

ARCH 5003.06: Adaptive Reuse Studio.

This class studies architectural design through the adaptation of an existing building. It examines tensions between existing built facts (structure, enclosure, and circulation) and new ambitions (habitation, construction, and cultural representation). It also considers historical and urban contexts and the heritage value of existing buildings.

INSTRUCTOR(S): Staff

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5004.06: Urban Systems Studio.

This studio examines the infrastructure of the metropolis and its influence on urban form and development. Topics include systems for transportation, energy use, water distribution, civic institutions, spaces of social exchange, and ecology. Students develop urban infrastructure propositions with reference to innovative urban projects worldwide.

INSTRUCTOR(S): Staff

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5005.06: Material Detail Studio.

This studio uses bricolage as a method to represent architectural ideas, observations, and intentions in a built artifact. Students interpret, modify, and project material details in architecture. The conceptual development of the work informs strategies for the development of an architectural design.

INSTRUCTOR(S): R. Mullin

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5006.06: Light Frame Building Studio.

This class studies the material and constructional orders of light-weight framing and cladding systems. Through drawing, model, and full-scale construction, case studies of buildings by modern and contemporary designers inform design projects for a multiple residential or small institutional building.

INSTRUCTOR(S): Staff

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5007.06: Landscape Studio.

This studio investigates architectural responses to landscape. It regards the land as a physical and cultural context requiring appropriate methods of visualization and representation. Referring to recent projects in land art, it considers how to engage

local materials and interests while promoting the sustainable occupation of a particular site.

INSTRUCTOR(S): B. Lilley, N. Savage

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5009.06: Ephemeral Architecture Studio.

This studio examines temporal, fleeting and ephemeral architecture, in contrast to the permanent, monumental, and timeless architecture that has been stressed throughout history. Students address concepts of alterity, the carnivalesque, *l'informe*, and inversion by designing spaces and/or activities on the edges of the established order.

INSTRUCTOR(S): S. Bonnemaïson

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5010.06: Public Architecture Studio.

This studio examines the role of public architecture in manifesting cultural values through the design of a civic institution. It also considers public architecture as an expression of material culture that mediates between the scales of artifact and landscape.

INSTRUCTOR(S): B. MacKay-Lyons, T. Sweetapple

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5011.06: Coastal Studio.

This studio investigates building on the coast. It explores conjunctions of ecology, culture, and traditional technical knowledge. Through participatory design, students work with a coastal community to develop innovative responses to situations with sensitive ecologies, extreme climate, and local cultural traditions.

INSTRUCTOR(S): T. Cavanagh

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5012.03: Urban Program Studio

This studio focuses on a basic human need (eating, sleeping, etc.) and investigates the customs and institutions we have developed around it. Questioning local practices and considering distant references, each student formulates a program, defines a site in the city of Halifax, and designs a building with a critical and/or innovative intent.

INSTRUCTOR(S): S. Parcell

FORMAT: Studio

RESTRICTION: Graduate students - Architecture

ARCH 5102.03: Housing Theory.

This class introduces the history and theory of contemporary practice in housing design and production. The focus is on the quality of housing and the residential environment. A comparative analysis of significant past and current examples is used to provide insight into the way houses and neighbourhoods are designed. This understanding is placed in the context of differing economic, political and housing market situations.

INSTRUCTOR(S): J. G. Wanzel

FORMAT: Lecture/seminar

CROSS-LISTING: PLAN 6111.03

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5103.03: Residential Real Estate Development.

This class introduces the basic issues, vocabulary, and conceptual approaches of residential real estate development. It also engages the range of design, development, financing, approval, and construction processes that are involved in the production of housing.

INSTRUCTOR(S): J. G. Wanzel

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5104.03: Urban Systems.

This seminar examines the infrastructure of the metropolis and its influence on urban form and development. It considers transportation, energy use, water distribution, civic institutions, spaces of social exchange, and ecological systems. It emphasizes new concepts of what is "urban" and what is "natural," referring to innovative urban designs worldwide.

INSTRUCTOR(S): C. Macy

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5105.03: History and Theory of Cities.

This class examines selected major cities, their originating form, important buildings, and building types in their history. The primary aim is to explore the relationship between architecture and urbanism and the relationship between individual buildings and the city.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5106.03: International Sustainable Development.

This class examines sustainable development in developed and developing countries. Local building practices and cultural appropriateness are studied through case studies. It considers how architects have handled materials and technology to engender patterns of living in a reflective and symbiotic manner

INSTRUCTOR(S): R. Kawar

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5107.03: Theory and the Built Environment.

This class is an overview of contemporary architectural theory, structured into three themes: architecture as a poetic act, moral act, and meaningful act. These themes allow students to develop their research and design interests in the graduate program. In a major project, students translate theoretical concerns into an architectural installation.

INSTRUCTOR(S): C. Macy, S. Bonnemaïson

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5108.03: Architectural Theory of the Enlightenment.

This class focuses on the phenomenon of the Enlightenment and the search for origins. The terms "Classic" and "Romantic" are examined in depth, as are archaeology, the culture of ruins, historiography, association theory, and the Picturesque. Architectural theories are compared with selected works of architecture and architectural representation.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5109.03: Ephemeral Architecture.

This seminar explores ideas of "otherness" in the city, manifested as ephemeral or temporary constructions and as critical responses to established norms. Theories of alterity, the carnivalesque, *l'informe* and inversion are used to interpret spaces and activities in the city that are marginal, liminal, repressed, neglected, or abandoned.

INSTRUCTOR(S): S. Bonnemaïson

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5110.03: Architectural Exhibitions.

This seminar introduces students to contemporary discussions in the field of exhibit design for architecture, including the role of the viewer, the use of display techniques to frame objects, and the curatorial voice. Groups of students develop an exhibition on a subject of their choice.

INSTRUCTOR(S): S. Bonnemaïson

FORMAT: Seminar/studio

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5112.03: Documentation and Conservation of the Modern Movement.

This class studies the documentation and conservation of buildings, sites and neighbourhoods of the Modern Movement. It examines international charters, protocols, and issues of identifications, evaluation and public awareness. Students undertake fieldwork and research on specific projects and contribute to a general register of modern works.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5113.03: Technology, Culture, and Society.

This class studies the technology of architecture in its broad cultural and social context. It explores the issue of technology in History, philosophy, sociology, and material culture, using contemporary and historical building as an example.

INSTRUCTOR(S): T. Cavanagh

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5198.03/5199.03: Humanities Seminar.

This class focuses on an advanced topic in architectural humanities. The topic changes from year to year. It may emphasize history, theory, criticism, urban studies, or architecture in development.

INSTRUCTOR(S): Staff

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 5202.03: From Timber to Lumber.

This class examines principles of forestry and ecology pertaining to woodlot management. It considers forest ecology, wood production, and the conversion of trees into building products such as dimensional lumber and engineered wood products.

INSTRUCTOR(S): A. Parsons

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 5203.03: From Lumber to Structure.

This class focuses on the structural analysis of wood framed buildings and structures. Structural principles in simple beam theory, column design, and lateral load design are studied in traditional and contemporary wood framed buildings.

INSTRUCTOR(S): A. Parsons

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 5204.03: Composite Materials.

This class surveys the history of materials, focusing on natural and synthetic polymers, resins, and composite material systems. It studies their origin, chemical content, and manufacturing processes. These materials and their related processes are used to fabricate functional objects, with attention to structure, assembly, and environmental impact.

INSTRUCTOR(S): R. Mullin

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5207.03: Light and Material.

This class examines characteristics of daylight and artificial light. It analyzes and experiments with how light is produced, is transmitted, and interacts with various materials. By considering lighting options for a particular use, it regards light as an integral element in the design of interior and/or exterior space.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 5208.03: Acoustics.

This seminar studies principles of interior room acoustics and audio-visual design. To address acoustical requirements in various types of spaces, it considers sound projection and isolation, and the control of mechanical and environmental noise through building design and acoustical materials.

INSTRUCTOR(S): Staff

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5209.03: Energy Efficient Design.

This class focuses on sustainable building services. It studies building energy codes and rating systems - specifically LEED - in the Atlantic region. It also examines international strategies for low-energy building; passive systems in ventilation, heating, and cooling; renewable energy systems; and the integration of engineering systems into architectural design.

INSTRUCTOR(S): Staff

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5210.03: Life Cycle Analysis.

This class studies the range of environmental impacts associated with building materials and assemblies, from their raw state to the end of their useful life. It considers operating energy, embodied energy, and carbon sequestration, with particular attention to the structure and building envelope of wood framed heritage buildings.

INSTRUCTOR(S): A. Parsons

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 5211.03: The Construction Detail.

This class examines the construction detail and its dialectical relationship to the architectural whole. Case studies of details in major twentieth-century buildings inform detail practice, in which students investigate material options and construction details for a project of their own design.

INSTRUCTOR(S): Staff

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5212.03: From Principle to Detail.

This class advances the technological content of a concurrent design project or thesis. It focuses on the integration of building systems (e.g., structure, construction, environmental technology), beginning with an overview of principles, followed by a self-directed material exploration, and culminating in the production of a relevant building detail.

INSTRUCTOR(S): B. Lilley

FORMAT: Studio/seminar

RESTRICTION: Graduate students - Architecture

ARCH 5213.03: Facades.

This class examines the various functions of a building facade: protection from weather, interior comfort, urban sign, and potential energy producer. It considers how a facade designed for a particular program can achieve high performance through attention to detail: building materials, manufacturing processes, and construction techniques.

INSTRUCTOR(S): B. Lilley, D. Goodz

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5214.03: Tensile Architecture.

This class studies the design and behaviour of tensile structures by building and testing models and mock-ups. It also explores the rhetorical potential of tensile structures by integrating technologies such as video, sound, light, sensors, and smart fabrics.

INSTRUCTOR(S): S. Bonnemaïson

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 5215.03: Fabrication.

This class studies the sequence of trades involved in building construction. It examines the material processes of various construction industries and considers their implications for design, with an emphasis on relations between convention and innovation.

INSTRUCTOR(S): T. Sweetapple

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 5216.06: Building Systems Integration for Design Thesis.

This class parallels MArch Thesis Preparation (ARCH 9007). Each student undertakes a technological study of his/her architectural design thesis through an ecological analysis of the site; a definition of performance criteria; an investigation of relevant building systems; and the design, construction, and testing of a significant material detail.

INSTRUCTOR(S): B. Lilley, R. Hudson

FORMAT: Lecture/seminar

PREREQUISITE: Completion of Year 5 MArch

ARCH 5217.03: Innovation in Computers and Building.

This class surveys and undertakes research in computer-based architectural models and computer-assisted manufacture, logistics, and construction. After an initial survey of the state of the art, students work on a focused design or problem-solving exercise. Where possible, work will contribute to actual building projects, research, competitions, and/or publication.

INSTRUCTOR(S): R. Hudson, E. Jannasch
FORMAT: Seminar/studio
RESTRICTION: Graduate students - Architecture

ARCH 5218.03: Site and Material Processes.

This class includes extensive field studies in Nova Scotia and the southeast United States. It introduces principles and practices of site dynamics such as ecology, and extends student understanding of building materials, manufacture, and innovative construction processes.

INSTRUCTOR(S): T. Cavanagh
FORMAT: Seminar/studio
RESTRICTION: Graduate students - Architecture

ARCH 5219.03: Technology of Heritage Conservation.

This class studies issues of building technology in heritage conservation. Based on the Standards and Guidelines for the Heritage Conservation of Historic Places in Canada (2010), it considers building technology issues germane to different conservation interventions (preservation, restoration, and rehabilitation), the appropriate use of materials and details, and the integration of building systems technology.

INSTRUCTOR(S): A. Parsons
FORMAT: Seminar
RESTRICTION: Graduate Students - Architecture

ARCH 5298.03/5299.03: Technology Seminar.

This class focuses on an advanced topic in architectural technology. The topic changes from year to year. It may emphasize materials, environmental strategies, or building details.

INSTRUCTOR(S): Staff
FORMAT: Seminar
RESTRICTION: Graduate students - Architecture

ARCH 5308.03/5309.03: Professional Practice (Co-op Work Term).

A student works in the architectural profession for 1000 hours in no less than 24 weeks and completes a research report or assignment. Work placements must be approved by the School of Architecture. A student may apply to satisfy up to 500 hours through supervised research related to Professional Practice.

INSTRUCTOR(S): Staff
FORMAT: Work term
RESTRICTION: March students

ARCH 5310.00: Co-op Work Term Continuation.

A student who has already registered for ARCH 5308 and ARCH 5309 may continue the co-op work term for up to three additional terms. While registered in ARCH 5310, a student's university status changes to part-time.

INSTRUCTOR(S): Staff
FORMAT: Work term
PREREQUISITE: ARCH 5308.03, ARCH 5309.03
RESTRICTION: March students

ARCH 5311.03: Professional Practice.

This class studies principles of professional ethics, partnerships, corporate practices, professional responsibility, and legal aspects of architectural practice. It also considers issues in practice management: contracts, codes, reference documents, finance, costing techniques, and contract administration.

INSTRUCTOR(S): Staff
FORMAT: Lecture/seminar
RESTRICTION: Graduate students - Architecture

ARCH 6001.03: Design Seminar.

This seminar focuses on an advanced topic in architectural design. The topic changes from year to year. It may emphasize urbanism, landscape, building, process, program, or habitation.

INSTRUCTOR(S): Staff
FORMAT: Seminar/studio
RESTRICTION: Graduate students - Architecture

ARCH 6002.03: Free Lab.

This class complements normal studio-based learning. It pursues an architectural topic through experimental hands-on work in a group format. Topics change from year to year and may include design-build work, documentaries, landscape installations, community design projects, and interdisciplinary work. Projects may be local or involve travel to a distant site.

INSTRUCTOR(S): Staff

FORMAT: Workshop/lab
RESTRICTION: Graduate students - Architecture

ARCH 6121.03: Architecture and Archaeoastronomy.

This class studies the significance of the night sky to various ancient and non-Western cultures, including the Egyptian, Celtic, Mesoamerican, Anasazi, and First Nations. It examines how celestial features and motions guided the design of buildings and influenced cultural practices, including the measurement of time.

INSTRUCTOR(S): P. Kelly
FORMAT: Lecture/seminar
RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6122.03/6123.03/6124.03/6125.03: Humanities Seminar.

This class focuses on an advanced topic in architectural humanities. The topic changes from year to year. It may emphasize history, theory, criticism, urban studies, or architecture in development.

INSTRUCTOR(S): Staff
FORMAT: Seminar
RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6209.03: Material Investigation.

This class uses a controlled workshop environment to examine characteristics of a material (e.g., metal, ceramic, glass) and methods for forming and finishing. Using principles of material science, it considers the harvesting or processing of raw material, the testing of structural capacity and environmental behaviour, and applications in design.

INSTRUCTOR(S): Staff
FORMAT: Workshop/seminar
RESTRICTION: Graduate students - Architecture

ARCH 6210.03: Material Investigation in Wood.

This class uses a controlled workshop environment to examine characteristics of wood and methods for forming and finishing. Using principles of material science, it considers the harvesting of raw material, the testing of structural capacity and environmental behaviour, and applications in design.

INSTRUCTOR(S): Staff
FORMAT: Workshop/seminar
RESTRICTION: Graduate students - Architecture

ARCH 6211.03/6212.03/6213.03/6214.03: Technology Seminar.

This class focuses on an advanced topic in architectural technology. The topic changes from year to year. It may emphasize materials, environmental strategies, or building details.

INSTRUCTOR(S): Staff
FORMAT: Seminar
RESTRICTION: Graduate students - Architecture

ARCH 6215.03: Earth Construction.

This class studies traditional and contemporary methods of earth construction (cob, rammed earth, wattle and daub, earth bag, and adobe) as sustainable, low-impact building systems. Based on the science of soils, it considers appropriate uses of earth technology in the construction of houses.

INSTRUCTOR(S): K. Thompson
FORMAT: Lecture/seminar
EXCLUSION: ARCH 5205.03
RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6216.03: Natural Finishes.

This class examines the use of natural finishes (earth and lime plasters, paint, stone, and wood) for walls, floors, and ceilings in contemporary buildings. Natural, local, and reused materials are assessed in terms of installation, cost, durability, aesthetic characteristics, and environmental impact in comparison with industrialized products.

INSTRUCTOR(S): K. Thompson
FORMAT: Lecture/seminar
EXCLUSION: ARCH 5206.03
RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6304.03: Entrepreneurship.

Successful entrepreneurship requires an ability to identify opportunities, skill to calculate risks, and the knowledge and determination to promote, develop, and implement a project. This class uses a case study approach to examine entrepreneurship in the public, private, and not-for-profit sectors and to assess potential applications to architectural practice.

INSTRUCTOR(S): J. G. Wanzel

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6305.03: Permission to Build.

Obtaining a building permit is only the last hurdle to clear before a potential architectural project can be realized. This class examines the entire process, including the various authorities, agencies, and groups that are involved, along with municipal planning regulations, building codes, material specifications, and public presentations.

INSTRUCTOR(S): N. Savage

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6306.03: Professional Practice Seminar.

This class focuses on an advanced topic in architectural professional practice. The topic changes from year to year.

INSTRUCTOR(S): Staff

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6501.03: Graphic Design in Architecture.

This class applies principles of information design and typography to architectural presentation. Using digital media, it experiments with various graphic design methods to organize text, images, and graphics in a clear, consistent way for particular presentation purposes.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 6502.03: Painting in Architecture.

This class examines how some architects have used painting in design development. Through studio work, students also consider how certain modes of painting may be integrated into the design process for their concurrent architectural studio project. Previous experience in any paint medium (e.g., watercolour, gouache, acrylic, oil) is required.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 6503.03: Photography in Architecture.

This class examines architectural photography from the late nineteenth century to the present. By analyzing and applying various photographic styles and techniques, students learn about photographic representation in architecture.

INSTRUCTOR(S): K. Kam

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 6504.03: Montage in Architecture.

This class examines the history, concepts, and uses of montage in architectural representation. It also considers how digital photography and computer technology can generate various forms of montage for analyzing and developing architectural designs.

INSTRUCTOR(S): K. Kam

FORMAT: Seminar/studio

RESTRICTION: Graduate students - Architecture

ARCH 6505.03: Multimedia in Architecture.

This class examines the use of various technologies to visualize, develop, and display multimedia presentations of architecture that may include text, graphics, photographs, sound, voice, animation, and/or video. It also considers how architectural designs can be developed using multimedia. These topics may apply also to projects in urban planning.

INSTRUCTOR(S): P. Kelly

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture and Planning or permission of instructor

ARCH 6506.03: Spatial Constructions in Digital Video.

This seminar investigates how digital audio and video can represent physical and spatial qualities of existing architectural, urban, or rural conditions. It emphasizes the use of the video camera and digital software for recording, imaging, and editing.

INSTRUCTOR(S): C. Venart

FORMAT: Studio/seminar

PREREQUISITE: ARCH 6505

RESTRICTION: Graduate students - Architecture

ARCH 6507.03: Language as Representation.

This class examines the reciprocal role of language and visual perception in architecture. It considers architectural description and criticism according to linguistic or dialectical models such as the theory of language games, classical rhetoric, or religious apology.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 6508.03: Alternatives to Perspective.

This class examines the limitations of linear perspective as a definitive method for representing objects and spaces. It analyzes Renaissance premises of perspective and considers other periods and cultures for alternatives that might be applied in contemporary architectural representation.

INSTRUCTOR(S): Staff

FORMAT: Seminar

RESTRICTION: Graduate students - Architecture

ARCH 6509.03: Digital Form.

This class considers the influence of emerging representational technologies on the making of architectural form. By analyzing how the design process is affected by working only in a digital environment, students learn about the limitations and possibilities of digital form.

INSTRUCTOR(S): N. Savage

FORMAT: Lecture/studio

PREREQUISITE: ARCH 6505.03

RESTRICTION: Graduate students - Architecture

ARCH 6510.03: Architectural Documentation and Analysis.

This class investigates techniques for documenting and analyzing existing architectural or urban conditions. Various modes of representation (drawing, model, video, and photography) are used to interpret the complex experience of physical form.

INSTRUCTOR(S): C. Venart

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 6511.03: Documentation and Reconstruction of Historic Buildings.

This class studies the use of drawings to document existing buildings, structures, and landscapes. It also studies drawings as a means of projection and examines their role in the reconstruction of past built works and projects.

INSTRUCTOR(S): Staff

FORMAT: Lecture/seminar

RESTRICTION: Graduate students - Architecture

ARCH 6512.03: Developments in Architectural Representation.

This class studies historical developments in the graphic language of architecture and its various modes of representation. By examining works by selected architects, students consider relationships between what is drawn and what is built.

INSTRUCTOR(S): N. Savage

FORMAT: Lecture/studio

RESTRICTION: Graduate students - Architecture

ARCH 6513.03: Representation Seminar.

This class focuses on an advanced topic in architectural representation. The topic changes from year to year. It may emphasize medium, relation to design, or history and theory.

INSTRUCTOR(S): Staff
FORMAT: Seminar/studio
RESTRICTION: Graduate students - Architecture

ARCH 7001.04: MArch (Post-Prof.) Major Project.

A major project is intended to address a question of personal interest and relevance to the field of study. It may be a work of design (accompanied by a written document) or an entirely written document. The major project is guided by a supervisor and an advisor.

RESTRICTION: MArch (Post-Prof.) students

ARCH 7002.04: MEDS Major Project.

A major project is intended to address a question of personal interest and relevance to the field of study. It may be a work of design (accompanied by a written document) or an entirely written document. The major project is guided by a supervisor and an advisor.

RESTRICTION: MEDS students

ARCH 7003.00: Continuation - MArch (Post-Prof.) Project.

Continuation of ARCH 7001.04.

RESTRICTION: MArch (Post-Prof.) students

ARCH 7004.00: Continuation - MEDS Project.

Continuation of ARCH 7002.04.

RESTRICTION: MEDS students

ARCH 9002.08: MArch (Post-Prof.) Thesis.

A thesis is intended to address a question of personal interest and relevance to the field of study. It may be a work of design (accompanied by a written document) or an entirely written document. The thesis is guided by a supervisor and an advisor. The student presents the work at an oral examination, and the thesis document is prepared in accordance with university thesis standards and submitted to the University.

RESTRICTION: MArch (Post-Prof.) students

ARCH 9003.08: MEDS Thesis.

A thesis is intended to address a question of personal interest and relevance to the field of study. It may be a work of design (accompanied by a written document) or an entirely written document. The thesis is guided by a supervisor and an advisor. The student presents the work at an oral examination, and the thesis document is prepared in accordance with university thesis standards and submitted to the University.

RESTRICTION: MEDS students

ARCH 9005.00: Continuation - MArch (Post-Prof.) Thesis.

Continuation of ARCH 9002.08.

RESTRICTION: MArch (Post-Prof.) students

ARCH 9006.00: Continuation - MEDS Thesis.

Continuation of ARCH 9003.08.

RESTRICTION: MEDS students.

ARCH 9007.06: MArch Thesis Preparation.

Within a seminar group, each student formulates a thesis question and explores it through design, analytical, and interpretive studies. The student is expected to develop and demonstrate expertise in the subject area. ARCH 9007 and ARCH 9008 must be completed in consecutive terms.

INSTRUCTOR(S): Staff

FORMAT: Seminar/studio

PREREQUISITE: Completion of Year 5 MArch

RESTRICTION: MArch students

ARCH 9008.06: MArch Thesis.

Each student proposes, develops, and completes an architectural design project that investigates the thesis question. The thesis concludes with a graphic/model presentation, an oral examination, and a formal thesis document that is submitted to the university. The entire thesis requires a minimum of two consecutive terms of residence.

INSTRUCTOR(S): Staff

FORMAT: Studio

PREREQUISITE: ARCH 9007

RESTRICTION: MArch students

ARCH 9009.00: MArch Thesis Continuation.

This continuation of ARCH 9008: MArch Thesis is for students who have not completed the thesis in the minimum two terms. The maximum duration of a thesis is five terms (including ARCH 9007).

INSTRUCTOR(S): Staff

FORMAT: Studio

PREREQUISITE: ARCH 9008

RESTRICTION: MArch students

4.9 Faculty of Architecture and Planning: Strategic Plan (2013–2018)



Faculty of Architecture and Planning Dalhousie University Strategic Plan 2013-2018

1 June 2013

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Context

Current situation of the Faculty of Architecture and Planning at Dalhousie University

Strengths

We have a talented and highly respected faculty, who are committed to teaching excellence, and enjoy a strong culture of collegiality in each of our Schools. Our students are actively engaged in academic decision-making and governance, and show a high degree of satisfaction with their experience at Dalhousie. Our dedicated and experienced support staff also teach and advise. Our Schools share a commitment to real-world applications of research and learning. We have a long-standing co-operative education program that places students in paid employment locally, nationally and internationally. Our 1500 alumni nationwide possess strong sense of affiliation, and many serve as sessional instructors and co-op employers.

Weaknesses

Our two Schools have distinct cultures and operate largely independently of each other, which limits possibilities for collaboration and makes it difficult to share resources in program design, staffing and space utilization. Offering three resource-intensive professional programs, our faculty share a perception of heavy teaching loads. We lack a clear understanding or collective expectation for research activity across the Faculty. Shortcomings in our research culture have made it difficult for us to support research-oriented graduate programs. We lack experience in developing funding sources outside the university budget process.

Challenges

As a small professional Faculty, we sometimes face challenges being understood at Dalhousie. Our planning programs have been underfunded since the establishment of the BCD program, resulting in a continuing base budget shortfall for the School of Planning. The teaching, learning and office space available to us on the Sexton Campus is insufficient to properly support our programs or plan for growth. Inadequate workshop facilities limit the ability of the architecture school to compete in innovation in the discipline. As faculty approach retirement, succession planning is needed for us to remain competitive.

Opportunities

The development of the IDEA building offers us an opportunity to grow our enrollments and our programs. The recent merger of Dalhousie with the Agricultural College offers us the opportunity to develop a program in Landscape Architecture. As our faculty members approach retirement, new hires offer us the opportunity to advance our research and research-oriented graduate programs. Our Faculty is now at a threshold of change: from two professional schools, to an integrated Faculty that offers a wide range of academic options and supports research in the environmental design disciplines.

The plan will be successful when we have ...

- **A strategic plan** to guide our actions, that we have developed together and which sets out achievable objectives. Success will be measured by implementation of its recommended actions by the target dates.
- **Improved teaching, learning and research** that keeps pace with, and contributes to, a rapidly changing world. Measurements of success include research productivity, teaching effectiveness, and disciplinary and community impact.
- **A healthy and engaged community** of students, staff and faculty who share a sense of belonging, common purpose and shared enterprise. Success will be measured through satisfaction surveys and our ability to work together to achieve our goals.
- **An excellent reputation** within the university, the professions, and the community — regionally and nationally — as a destination for learning about and innovating in architecture and planning. Success will be measured by increased applications and sought-after graduates.
- **Well resourced and equipped facilities** that support our teaching and research. Success will be measured by the completion of the IDEA Building, annual upgrades to our facilities and equipment. It will be monitored annually through the mechanism of the zero-based budget process.
- **Financial stability** that is sustainable and autonomous over the long term, providing us with sufficient resources which we use efficiently and effectively to realize our goals. Success will be measured by our ability to meet our budget targets.

Mission

The Mission of the Faculty of Architecture and Planning is to further scholarly and creative achievement in professions related to design and planning of the built and natural environment. We focus on real-world challenges using design thinking to drive collaborative engagement among students, teachers and communities. We seek to mobilize change towards sustainable communities and environments.

Vision

Over the next five years the Faculty of Architecture and Planning will provide an innovative and collaborative teaching, learning and research environment for disciplines concerned with the planning and design of the built and natural environments. We will welcome an expanded community of students, faculty, and staff. We will have secured appropriate additional space to meet our educational and research needs. We will embrace other disciplines related to environmental design and planning. We will implement innovative learning and teaching approaches to facilitate interdisciplinary collaboration within our Faculty, with other academic disciplines, and with our communities.

Values

In our disciplines

We recognize the importance of design thinking and problem solving as strategies for making an impact on communities and the environment

We strive for excellence in educating competent professionals

We commit to promoting social and environmental sustainability

In our teaching and learning

We put students and their educational needs first

We value clear, current, and coherent curriculum design

We promote collaboration, and hands-on learning

In our research

We value relevance, community engagement, and ultimate benefits to society and the environment

We value creativity and critical thinking

We believe research invigorates our teaching and learning

We share our findings with wider communities

In our collective effort

We value a common purpose, collective decision-making, and a sense of community while respecting each others' expertise and responsibilities

1. Teaching culture

Teaching and learning is the core activity of our Faculty, involving students, academic and support staff. It happens at many scales and is always an interactive, dialogical, and dialectical process. It is nourished by continuing knowledge creation in the Faculty, accomplished through research, scholarship, creative and professional activity. Our Faculty places a great value on excellent teaching. We have identified two key items we need to improve on: to make better use of our resources, we need to provide more opportunities for sharing and collaboration across our programs; and to support our teaching culture, we need to improve our teaching supports.

Actions:

1.1 Support sharing and collaboration where possible in our programs, to make best use of our resources.

- 1.1.1 Carry out a curriculum mapping of all programs in the Faculty. Ensure that each program has a clear pedagogical structure and sequence. Identify areas of overlap and possible joint offerings.
Persons responsible: School Directors, working with School curriculum committees. Target date: December 2013.
- 1.1.2 Look at all undergraduate courses and determine which can be utilized by both architecture and planning programs (and potentially, landscape architecture). Develop a curricular strategy that enhances collaboration in the undergraduate programs — including consideration of mandatory and elective courses and studio options.
Persons responsible: Dean, working with School Directors and School curriculum committees. Target date: June 2014.
- 1.1.3 Explore the possibilities for collaboration with other Departments and Faculties, within the research-oriented graduate degree programs.
Persons responsible: Director of Research, working with School Directors. Target date: June 2015.

1.2 Support our teaching culture.

- 1.2.1 Develop a framework to mentor and support faculty members and sessional instructors who wish to improve their teaching, including better use of the Centre for Learning and Teaching, and financial support for participation in teaching conferences.
Persons responsible: Dean, working with School Directors. Target date: June 2014.
- 1.2.2 Improve our instruments for providing feedback on effectiveness, beyond the university's standard Student Ratings of Instruction. Possibilities include: student assessment, internal and external peer assessment, self-assessment, participation in teaching conferences, and self-charting of improvement.
Persons responsible: Dean, working with School Directors and School committees. Target date: June 2015.
- 1.2.3 Recognize teaching excellence in faculty, sessional instructors, work term employers, staff and teaching assistants, annually during the Convocation Teas.
Persons responsible: Dean, working with School Directors, faculty, staff and students. Target date: June 2016.
- 1.2.4 Explore ways to reduce teaching workloads in the Schools.
Persons responsible: School Directors, working with School curriculum committees. Target date: June 2014.

2. Research culture

Research in the Faculty of Architecture and Planning includes many activities, encompassing design innovation and problem solving as well as scholarship. It is particularly marked by strengths in interdisciplinary collaboration, and a focus on community engagement and applied research. To develop our research culture, we need to increase our collective understanding of research by documenting our activities and developing a research strategy, investing in research activity, and being clear about our expectations for productivity,

Actions:

2.1 Document and promote research conducted within the Faculty.

- 2.1.1 Create a searchable database of faculty research, recording acceptable research outcomes with respect to research, tenure and promotion (RTP) criteria; grants applied for and received; professional activity; outcomes of creative or scholarly work; and impact measurements. This will reside in the Dean's Office and will be shared as desired and required.

Persons responsible: Dean, working with Anita Regan and DFA members. Target date: December 2013.

- 2.1.2 Recognize research accomplishment and develop a communications strategy for sharing it with the university community and farther afield.

Persons responsible: Dean, working with Director of Research and Communications Officer. Target date: June 2015.

2.2 Strengthen our research culture.

- 2.2.1 Ensure that each School has a workload and RTP document for research activity: identifying what it is; the basis to compare scholarship, creative work and professional practice; and expectations for productivity.

Persons responsible: School Directors. Target date: June 2014.

- 2.2.2 Develop supports for faculty who want to strengthen their research capability, by establishing a structure for networking, mentoring, and peer review.

Persons responsible: Dean, working with Director of Research. Target date: June 2014.

- 2.2.3 Develop a plan that addresses funding, space, and facilities requirements for the Faculty's research-based graduate programs.

Persons responsible: School Directors, working with Dean. Target date: December 2014.

- 2.2.4 Develop a road map for creating a faculty-wide PhD program.

Persons responsible: School Graduate Committees, working with Director of Research and Dean. Target date: June 2015.

2.3 Develop a Faculty research strategy, to support our participation in the university's research initiatives.

- 2.3.1 Appoint a Director of Research in the Faculty, who will champion research within the Faculty and serve as our liaison for university initiatives.

Persons responsible: Dean. Target date: December 2013.

- 2.3.2 Identify streams of excellence within the Faculty, which we can use to enhance research activity and shape graduate research programs.

Persons responsible: School Directors, working with DFA faculty members. Target date: December 2014.

- 2.3.3 Articulate a Faculty research agenda to provide continuity in research activities from grant to grant, raise our research profile, attract graduate students, and define new hires.

Persons responsible: Director of Research, working with DFA faculty members. Target date: June 2015.

- 2.3.4 Explore the business case to support research at the time of initial appointment, for tenure track or research chairs.

Persons responsible: Dean, working with Directors. Target date: June 2016.

3. Student experience

Our Faculty's professional programs are structured around the studio environment. Although this is a common setting for the practice of architecture, urban design, and planning, it is relatively unique in the university and may be new to many students. It is a hands-on setting in which students have their own workspace amidst their colleagues. In this vibrant open workspace, students engage in project-based learning -- initially collaboratively and over time, with a greater degree of self-direction. In this kind of intense working environment, students learn from each other as much as they do from the instructors, making lifelong friendships on the way. Because our students share the distinctive experience of the studio, we find that we need to do a better job at letting them know what to expect when they come to study here.

Actions:

3.1 Communicate what our programs are, the choices students need to make upon enrollment, potential career opportunities, and what it is like to learn here.

- 3.1.1 Develop a statement that reflects each School's approach to teaching and learning. This statement will help students interested in our programs understand what to expect as a student and how learning in our Faculty may differ from their previous learning experiences.

Persons responsible: School Directors, working with Program Coordinators and staff. Target date: June 2014.

- 3.1.2 Describe program options and potential career paths.

Persons responsible: School Directors, working with Program Coordinators and staff. Target date: June 2014.

- 3.1.3 Describe the student experience to prospective undergraduate students.

Persons responsible: Program Coordinators, working with student associations and staff. Target date: June 2014.

3.2 Develop a framework for continually improving the student experience.

- 3.2.1 Develop a process to continually monitor, consult on, and improve on aspects of the student experience.

Persons responsible: Dean, working with students, faculty and staff. Target date: June 2014.

4. Communications

Communications is central to all our activities. Effective communication within an organization is not only top down, it is bottom up and horizontal — in other words, we all play a role in communicating with each other. A communication strategy requires that we distinguish between active and passive modes of communications, and use the right kind of communication to obtain the outcomes we seek across the spectrum of our activities. We need to be more explicit in what we do and what we believe in, and advertise it more effectively in our curriculum, in our research promotion, in our recruitment.

Actions:

4.1 Develop and implement a communications strategy that ensures the School offices and the Dean's office are able to serve as an information hub about almost anything that needs a communication, and can coordinate with the university and others.

- 4.1.1 Survey faculty, staff, students about how they communicate and prefer to communicate. Develop a communications strategy that distinguishes between active and passive modes.

Persons responsible: Dean, working with office staff and Webmaster. Target date: June 2014.

- 4.1.2 Inventory vital university meetings and activities and map onto staff as well as faculty expertise, to optimize our representation at the university level.

Persons responsible: Dean, working with School Directors and office staff. Target date: December 2013.

- 4.1.3 Bring communications for Planning and Architecture together in one system where desirable. Explore on-line system for room bookings, event planning, and recording faculty and staff leaves.

Persons responsible: Dean, working with School Directors, office staff, Webmaster and Communications Officer. Target date: December 2014.

- 4.1.4 Develop an alumni communication strategy.

Persons responsible: Dean, working with Alumni Officer and School Directors. Target date: December 2014.

- 4.1.5 Train staff and faculty in new communications systems and methods.

Persons responsible: Dean, working with IT Department staff, Human Resources, and Communications Officer. Target date: Ongoing.

5. Human resources

The strength of our Faculty is the people who work, study and learn here. We all need the opportunity to continue to learn throughout our careers and our lives — whether we are acquiring new knowledge, or skills, or an opportunity to practice these. We also need to recognize that higher education can create a demanding and stressful environment for students, faculty and staff. For this reason, it is important to strive for a work-life balance, so we can stay healthy and happy as we do our work.

Actions:

5.1 Strive for a healthy workplace that supports a work-life balance.

- 5.1.1 Develop and implement a fair and consistent workload policy for faculty and sessional instructors in both schools, which includes teaching, research and administrative activities.
Persons responsible: School Directors. Target date: June 2014.
- 5.1.2 Review work place policies for staff to ensure they are clear, fair and reasonable — including overtime, flextime, vacation, leaves, job descriptions and evolution in times of organizational change.
Persons responsible: Dean, working with staff and Human Resources. Target date: December 2013.
- 5.1.3 Develop policies and procedures to minimize the negative impacts of staff and faculty leaves.
Persons responsible: Dean, working with School Directors, staff and Human Resources. Target date: December 2013.
- 5.1.4 Develop policies and procedures to enable staff working in trimester programs to take time for rest and renewal.
Persons responsible: Dean, working with staff and Human Resources. Target date: December 2014.

5.2 Provide opportunities for personal development for all employees.

- 5.2.1 Carry out a gap analysis of workplace support systems for faculty and staff, focusing on orientation, job training, mentoring, and adapting to organizational, curricular, or technological change. Identify where there are gaps in university support services. Act on any gaps, and raise awareness of the supports available.
Persons responsible: Dean. Target date: December 2014.
- 5.2.2 Include sessional instructors and teaching assistants in academic orientations and introduce them to staff, colleagues, resources, and the courses they are doing.
Persons responsible: School Directors. Target date: June 2014.
- 5.2.3 Provide continual workplace training for academic and support staff in new information technology.
Persons responsible: Director of Computing, working with ITS, CLT, School Directors and Dean. Target date: Ongoing.
- 5.2.4 Develop a framework for recognition and appreciation of academic and support staff, student leaders and alumni volunteers.
Persons responsible: Dean. Target date: June 2014.

6. Resource allocation

Over the period of this plan, the university will be looking at another several years of public sector constraints. Each year, the university increases the Faculty's budget to cover salary raises negotiated in collective bargaining. It then cuts Faculty budgets, by this amount or more, to cover the costs of this increase and overhead. Year after year, the cumulative reduction to our discretionary budget with these annual cuts is significant. We balance our budget by increasing enrollments and contract research, replacing retiring staff with entry-level positions, streamlining programs and pursuing gifts and endowments. In allocating our resources, we ask two questions: How well does our allocation of resources correspond to our vision of what we do and what we care about? What principles should guide our resource allocation?

Actions:

6.1 Develop a sustainable funding model for the Faculty in Dalhousie University. Resource-intensive studio and graduate programs are most sustainable when housed in a Faculty that also offers a more general undergraduate education.

- 6.1.1 Review and modify the direct-entry undergraduate program to accommodate enrollment growth, while ensuring:
- It attracts students to our professional degree options, while standing on its own as a general studies degree.
 - It develops the necessary core competencies to prepare students for admission to the professional programs.
 - It offers courses within our disciplines that are of broad general interest to university students.
 - It is supported by academic staff and budgets from both schools.

Persons responsible: School curriculum committees, working with School Directors and the Dean. Target date: June 2014.

- 6.1.2 Advocate for fair and full resourcing for the professional programs, in the event of changes to ERBA allocations, initiatives from the Faculty of Graduate Studies, and/or the anticipated provincial review of the bin-weighting system for university allocations to programs.

Persons responsible: Dean. Target date: Ongoing.

- 6.1.3 Pursue other growth areas for the Faculty, such as compatible professional degree programs like landscape architecture and industrial design.

Persons responsible: Dean, working with School Directors and relevant bodies. Target date: June 2013.

- 6.1.4 Find ways to align our programs, personnel, facilities and operations to promote sharing of resources.

Persons responsible: Dean, working with School Directors. Target date: June 2014.

6.2 Allocate our resources fairly to support our programming, activities and plans, based on actual data rather than historical patterns.

- 6.2.1 Introduce zero-based budgeting to allocate resources fairly, depending on enrollments, program type, and other relevant circumstances.

Persons responsible: Dean, working with School Directors and staff and Finance Officer. Target date: April 2014.

- 6.2.2 Ensure transparency and accountability in the budget, through regular presentations to faculty and staff that show revenues (from enrollments and research activities) and expenditures (on programs and other costs).

Persons responsible: Dean, School Directors, and Finance Officer. Target date: Ongoing.

Implementation timeline

1. Teaching culture

Support sharing and collaboration in our programs.

- 1.11 Curriculum map of programs and identify possible joint offerings.
 1.12 Develop strategy for UG curriculum that enhances collaboration and sharing.
 1.13 Explore possibilities for collaboration outside Faculty.

Support our teaching culture.

- 1.21 Develop a framework to mentor and support faculty.
 1.22 Improve instruments for feedback on teaching.
 1.23 Recognize teaching excellence.
 1.24 Explore ways to reduce teaching workloads.

2. Research culture

Document and promote research in the Faculty.

- 2.11 Create a searchable database of faculty research.
 2.12 Recognize research accomplishment, develop a communications strategy.

Strengthen our research culture.

- 2.21 Ensure each School has workload and RTP document.
 2.22 Develop supports for faculty to strengthen research capability..
 2.23 Develop plan to improve support for research-based graduate programs.
 2.24 Develop a road map for creating a faculty-wide PhD program.

Develop a Faculty research strategy.

- 2.31 Appoint a Director of Research in the Faculty.
 2.32 Identify streams of excellence within our Faculty.
 2.33 Articulate a Faculty research agenda.
 2.34 Develop a business case to support research at the time of appointment.

3. Student experience

Better communicate programs, career opportunities, and the learning experience to students.

- 3.11 Develop a statement that reflects teaching and learning in each School.
 3.12 Describe program options and potential career paths.
 3.13 Describe the student experience to prospective undergraduate students.

Develop a framework for continually improving student experience.

- 3.21 Develop a process to continually monitor, consult on, and improve this.

4. Communications

Develop and implement a communications strategy.

- 4.11 Develop a communications strategy.
 4.12 Inventory vital university committees and map onto staff expertise.
 4.13 Bring communications for Schools together in one system.
 4.14 Develop an alumni communication strategy.
 4.15 Train staff and faculty in new communications systems and methods.

5. Human resources

Strive for a healthy workplace.

- 5.11 Develop and implement a fair and consistent workload policy.
 5.12 Review workplace policies to ensure they are clear, fair & reasonable.
 5.13 Develop policies to minimize the impacts of leaves.
 5.14 Develop policies to relieve staff working in trimester programs.

Provide opportunities for personal development for all employees.

- 5.21 Carry out a gap analysis of workplace support systems.
 5.22 Include sessional instructors and TAs in academic orientations.
 5.23 Provide continual workplace training for staff in new IT.
 5.24 Develop a framework for recognition of staff, student leaders & alumni.

6. Resource allocation

Develop a sustainable funding model for our Faculty in Dalhousie University.

- 6.11 Review and modify direct-entry undergraduate program.
 6.12 Advocate for fair and full resourcing for professional programs.
 6.13 Pursue other growth areas for the Faculty.
 6.14 Align programs, personnel & operations to promote resource sharing.

Allocate our resources fairly to support our programming, activities and plans.

- 6.21 Introduce zero-based budgeting.
 6.22 Ensure transparency and accountability in the budget.

Faculty of Architecture and Planning

Strategic Plan 2013-18

8

Appendix / Session participants

SESSION ONE: KICK-OFF

Starting Out / Mission, Vision, Values / Environmental Scan / Creating an Organizing Committee

Monday 17 December 2012, 10:00am to 5:00 pm, Exhibition Room, Medjuck Building

Participating: Dale Arsenault, Martha Barnstead, Kim Brooks (Law), Ron Burdock (NSAA), Diogo Burnay, Ted Cavanagh, Paula Costello, Patty Cuttall, Andy Fillmore, Jill Grant, Eric Guile, Ahsan Habib, Christopher Hardy (GPS), Emanuel Jannasch, Ken Kam, Patrick Kelly, Richard Kroeker, Brian MacKay-Lyons, Christine Macy, Carol Madden, Steve Mannell, Patricia Manuel, Susanna Morash Kent, Beverly Nightingale, Benjie Nycum, Frank Palermo, Steve Parcell, Austin Parsons, Doug Pitcairn, Eric Rapaport, Niall Savage, Catherine Venart, Grant Wanzel, Don Westin, Joanne Woodworth, John Zuck / 36 persons

SESSION TWO: DEVELOPING THE TOPIC AREAS

Friday 4 January 2013, 2:00 to 5:30 pm, Exhibition Room, Medjuck Building

Participating: Cecilia Alstrom-Rapaport, Martha Barnstead, Rejean Beaudin (DASA), Sarah Bonnemaison, Diogo Burnay, Ted Cavanagh, Paula Costello, Patty Cuttall, Naryn Davar (DASA), Farhana Ferdous, Andy Fillmore, Omar Gandhi, Jill Grant, Eric Guile, Ahsan Habib, Christopher Hardy (GPS), Peter Henry, Roland Hudson, Emanuel Jannasch, Patrick Kelly, Richard Kroeker, Lachlan Lepine (DASA), Abigail McEachern, Christine Macy, Carol Madden, Steve Mannell, Patricia Manuel, Laila McMillan (DASA), Susanna Morash Kent, Roger Mullin, Elisa Navarro Morales, Bev Nightingale, Benjie Nycum, Kyle Paisley (DASA), Frank Palermo, Steve Parcell, Austin Parsons, Will Perkins (DASA), Eric Rapaport, Anita Regan, Niall Savage, Manjula Singh (DASA), Anne Swan, Talbot Sweetapple, Lisa Tondino, Mitch Underhay (SUP), Catherine Venart, Grant Wanzel, Colin Whitcomb, Duncan Whitcomb, Phil Wilson (DASA), John Zuck / 52 persons

EIGHT CONSULTATIVE TOPIC SESSIONS

1. Teaching Culture Wednesday January 16 & 23, 2013

Participating: Jane Abbott, Cecilia Alstrom-Rapaport, Diogo Burnay, Ted Cavanagh, Robert Collins, Paula Costello, Robert Cuthbert, Ryan Funt, Stefan Gingras, Jill Grant, Ahsan Habib, Christopher Hardy, Damon Hayes-Couture, Brynn Horley, Emanuel Jannasch, Nicole Jowett, Ken Kam, Kevin Lo, Justin Loucks, Christine Macy, Patricia Manuel, Molly Merriman, Hamid Mohammadi, Susanna Morash-Kent, Elisa Navarro Morales, Roger Mullin, Benjie Nycum, Kyle Paisley, Steve Parcell, Will Perkins, Holly Simon, Manjula Singh, Talbot Sweetapple, Mitchell Underhay, Cristina Verissimo, Grant Wanzel, Phil Wilson, John Zuck

2. Communications Wednesday January 23, 2013

Participating: Diogo Burnay, Christopher Hardy, Susanna Morash-Kent, Beverly Nightingale, Benjie Nycum, Stephen Parcell, Anne Swan

3. Developing a Research Strategy Wednesday January 30, 2013

Participating: Diogo Burnay, Jill Grant, Ahsan Habib*, Roly Hudson, Christine Macy, Elisa Navarro Morales, Austin Parsons, Anita Regan, Roger Mullin

4. Student Experience Wednesday January 30 & Friday February 8, 2013

Participating: Cecilia Alstrom-Rapaport, Diogo Burnay, Christopher Hardy, Roly Hudson, Emanuel Jannasch, Susanna Morash-Kent, Christine Macy, Carol Madden, Beverly Nightingale, Stephen Parcell, Mitchell Underhay, Emily Wilson

5. Resource Allocation and 6. Human Resources Development Wednesday February 13, 2013

Participating: Diogo Burnay, Howard Epstein, Andy Fillmore, Eric Guile, Christine Macy, Susanna Morash-Kent, Benjie Nycum

7. Large Picture Issues Wednesday February 13, 2013

Participating: Diogo Burnay, Paula Costello, Eric Guile, Roly Hudson, Christine Macy, Benjie Nycum, Steve Parcell, Anita Regan, Catherine Venart, BCD students Sarah and Siobhan

SESSION THREE: CREATING AN ACTION PLAN

Wednesday 20 February 2013, 2:00 to 5:00 pm, Room D410, Macdonald Building

1. Teaching Culture and 2. Student Experience

Participating: Cecilia Alstrom-Rapaport, Roger Mullin, Benjie Nycum, Niall Savage, Catherine Venart

3. Developing a Research Culture

Participating: Ted Cavanagh, Ahsan Habib, Carol Madden, John Zuck

4. Communications

Participating: Andy Fillmore, Christopher Hardy, Emanuel Jannasch, Austin Parsons, Anita Regan, Kim Thompson

5. Developing Human Resources

Participating: Paula Costello, Christine Macy, Patricia Manuel, Susanna Morash-Kent, Beverly Nightingale

6. Resource Allocation and 7. Large Picture Issues

Participating: Sarah Bonnemaison, Diogo Burnay, Paula Costello, Farhana Ferdous, Frank Palermo, Grant Wanzel

SESSION FOUR: REVIEW OF DRAFT PLAN

Wednesday 27 March 2013, 2:00 to 5:00 pm, Room HB4

Participating: Faculty Committee of the Whole

