# University of Michigan A. Alfred Taubman College of Architecture & Urban Planning

# **Visiting Team Report**

# **Master of Architecture**

Track I: (non-pre-professional + 93 graduate credits) Track II: (pre-professional + 60 graduate credits)

The National Architectural Accrediting Board 2 February 2011

The National Architectural Accrediting Board (NAAB), established in 1940, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from an NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.

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# I. Summary of Team Findings

# 1. Team Comments & Visit Summary

The Team applauds the energy and dedication the dean has brought to the program. Her ability work to within the university system, inspire faculty and encourage student involvement have dramatically enhanced the program at the University of Michigan. The Team compliments the dean and the new chair on their personal interests in the student's education, activities and quality of life.

The Team was impressed with the strategic commitment of the university administration to the program. The engaged interest and support of the dean and her initiatives, the faculty, and the facilities contribute to the building of an outstanding program. The program benefits from a large endowment and from the fact the university administration has absorbed the reductions in state funding by cutting operational costs rather than core academic programs.

The faculty is a talented and diverse group who take pride in their individual contributions to the curriculum and the program as a whole. They are given the time and resources for course development as well as research. They encourage and stimulate the students to explore alternatives and embrace creativity.

The students are bright, engaged, talented, and collegial. They appreciate the rigor and richness of the program. They come from a wide range of backgrounds. Though some begin without prior architectural training, students feel that all finish with comparable skills.

The team was impressed with the true integrated practice model and comprehensive design demonstrated by the program. The team found evidence that students experience the varied aspects of architectural design. This is however a work in progress but has come a long way in a very short period of time.

# 2. Conditions Not Met

A.4: Technical Documentation

## 3. Causes of Concern

- A. Physical Resources to Size of Program: The student population has increased over the last several years. Although the school appears to have adequate resources to handle the current enrollment, further growth could be a problem. Physical resources are at their limits and an increase in the number of graduate students would be difficult to accommodate in existing studios and classrooms.
- B. Consistency in Instruction: Due to the overall size of the program and the relatively low faculty student ratio, there are as many as nine professors teaching the different sections of each studio. Though differences in perspective and approach can be productive, there is a concern that all groups my not address the required student performance criteria to the same level.
- C. Comprehensive Design Studio as part of Study Abroad: The team did not see work produced by the Comprehensive Studio being taught in Italy. There is concern that the broader cultural goals of international study may not be compatible with the professional focus and technical integration central to the comprehensive studio.

# 4. Progress Since the Previous Site Visit (Year)

**1998 Criterion 12.14, Accessibility:** Ability to design both site and building to accommodate individuals with varying physical abilities

**Previous Team Report (2005):** This criterion is not met. There is almost no evidence in the studio work examined by the team that this criterion is a component of the design instruction. The persistent identification of this area of the performance criteria as problematic demonstrates the need to find a fundamental home within the required curriculum to evidence *ability*. Progress is being achieved in site design as reflected in the Site Planning 589 course.

**2007 Focus Visiting Team Assessment:** This criterion is met in the M Arch (4+2) and the M Arch (3.5). The syllabi are filled with accessibility requirements and how these requirements might be achieved. Lectures, handouts and listings of reference materials are the primary methods of transferring knowledge. Site design is strong on parking, site traversing and building entry/approach. Floor plate accessibility is considered in design studios. While accessibility details on the finite requirements contribute to class discussions, the evidence in student exercises appears to meet the minimal criterion.

**2011 Visiting Team Assessment:** This criterion is now listed as B.2 Accessibility. The Team felt the students were exposed to the concepts of universal design in a very positive way in their coursework specifically in Arch 527: Building Systems. However the studio work only met the minimum requirements for this criterion.

**1998 Criterion 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

**Previous Team Report (2005):** This criterion is not met. While there may have been some progress toward *understanding,* there is little evidence that life safety is basic to student problem-solving ability. Life safety is a secondary issue in the Environmental Technology sequence and there is limited evidence of it in the two fifth-year design studios available for review.

**2007 Focus Visiting Team Assessment:** This criterion is met in the M Arch (4+2) and the M Arch (3.5). Both studio design and Construction Methods delineate life safety considerations by the students. Egress requirements are emphasized and demanded in student work through analysis and diagramming overlays to the project design. MEP issues are covered in the construction methods courses. An awareness of life safety issues is integrated with the building code studies.

**2011 Visiting Team Assessment:** This criterion is now listed as B.5 Life Safety. The Team felt the students were exposed to life safety issues in their coursework specifically Arch 527: Building Systems. These issues were emphasized in studio and were evidenced in the work.

**1998 Criterion 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

**Previous Team Report (2005):** This criterion is not met. Course materials provided for review suggest that legal responsibilities are a secondary issue, addressed in only a cursory manner.

**2007 Focus Visiting Team Assessment:** This criterion is met in the M Arch (4+2) and the M Arch (3.5). Case studies are the primary tool for conveying both the legal and ethical issues associated with practice. The emphasis in this criterion is placed on the student's ability to make judgments regarding these issues and to understand the potential consequences of their actions on themselves, their co-workers, their clients and the public.

**2011 Visiting Team Assessment:** This criterion is now listed as C.7 Legal Responsibilities. These issues are well covered in coursework, specifically in Arch 583: Professional Practice.

**1998 Criterion 12.24, Building Code Compliance:** Understanding of the codes, regulations, and standards applicable to a given site and building design, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, means of egress, fire protection, and structure

**Previous Team Report (2005):** This criterion is not met. While some courses in the Environmental Technology and Structures sequences use building code information as components of certain sections of the curriculum, these do not constitute the comprehensive understanding needed. In addition, much of the design work that was examined for review indicated little regard for health, safety, and welfare requirements. Safe exiting, accessibility, and smoke evacuation considerations in multi-floor open spaces were ignored.

**2007 Focus Visiting Team Assessment:** This criterion is met in the M Arch (4+2) and the M Arch (3.5). A comprehensive overview of code issues is incorporated into construction methods, studio sequences, and professional practice. Student work displays a basic understanding of use groups, fire separation, UL ratings, egress capacities, and travel distances.

**2011 Visiting Team Assessment:** This criterion is now covered in C.7 Legal Responsibilities. These issues are covered in coursework, specifically in Arch 583: Professional Practice and are also evidenced in studio work.

**1998 Criterion 12.26, Building Economics and Cost Control:** Understanding of *building* economics, and construction cost control within the framework of a design project

**Previous Team Report (2005):** This criterion is not met. The only course listed in the *APR* as demonstrating primary compliance with this criterion is an elective.

**2007 Focus Visiting Team Assessment:** Although references are made to this criterion in several courses, such as the construction sequences and professional practice, there was not sufficient evidence provided in student exhibits in the M Arch (4+2) and the M Arch (2.5) to demonstrate that the criterion has been met at the level of "understanding" as opposed to "awareness". There was a single student exercise that required a cost estimate of the materials and labor involved in the construction of a designed object to be constructed by the student. There is a need to extend this exercise to apply to the issues of building economics and costs control.

**2011 Visiting Team Assessment:** This criterion is now listed as B.7 Financial Considerations. These issues are covered in coursework, specifically Arch 417: Construction and Arch 583: Professional Practice. The condition is now met.

**1998 Criterion 12.29, Comprehensive Design:** Ability to produce an architecture project informed by a comprehensive program, 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 program's design criteria

**Previous Team Report (2005):** This criterion is not met. Many of the components of comprehensive design are evident in varied courses throughout the curriculum, but there were gaps: program preparation and life-safety provisions, for example. In addition, the team found no evidence that these components were addressed across the student design projects at any point in the design studio sequence.

**2007 Focus Visiting Team Assessment:** There has been significant progress in this area, and this criterion has been considered very thoughtfully by the faculty as a total curriculum model. This innovative and more challenging model requires a full and explicit integration of both design and core courses beyond the simple requirement that comprehensive design be met in a single design course or thesis capstone course. The faculty must be commended for their vision and development of this curriculum model. However, these efforts are just beginning to emerge, and the curriculum must be considered in transition. Therefore, given the emphasis and direction of this effort, it must be recognized that the student work exhibited in the M Arch (4+2) and the M Arch (3.5) was not sufficient at the level of "ability" nor has the student work achieved the stated goals of the faculty for the demonstration of comprehensive design within student work throughout the curriculum.

**2011 Visiting Team Assessment:** This criterion is now listed as B.6 Comprehensive Design. The development of comprehensive design has continued combining coursework and studio, and is now demonstrated in the single studio course Arch 672: Comprehensive Design Studio. The condition is now met and the Team applauds the overall quality of the effort considering the studio has only been taught one year. The Team does see this as a work in progress and would hope to see the overall quality of the work continue to grow. There is concern about the consistency of the instruction due to the large class being broken into nine sections. The Team would have liked to have seen work from the one section being taught in Italy.

**1998 Criterion 12.30, Program Preparation:** Ability to assemble a comprehensive program 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

**Previous Team Report (2005):** This criterion is not met. Assembling a comprehensive program for an architecture project is addressed in a limited manner in a limited number of courses, primarily ARCH 422/432 and 660/662 (thesis). Yet, student work provides scant evidence of a program document as an integral component of these studio projects.

**2007 Focus Visiting Team Assessment:** This criterion is met in the M Arch (4+2) and the M Arch (3.5). Significant analysis of such items as contextual influences, environmental factors, functional generators and social expectations are evident in the program documents of the thesis projects, which are required of all students. Of note are the alternative thought patterns detailed in the analysis, which operate together with the traditional means of assessing these programming parameters.

**2011 Visiting Team Assessment:** This criterion is now covered in B.1 Pre-Design. These issues are covered in studio work and in Arch 660: Thesis Seminar and continues to be met.

# II. Compliance with the Conditions for Accreditation

# Part One (I): INSTUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

#### Part One (I): Section 1. Identity and Self-Assessment

**I.1.1 History and Mission**: The program must describe its history, mission and culture and how that history, mission, and culture is expressed in contemporary context. Programs that exist within a larger educational institution must also describe the history and mission of the institution and how that history, mission, and culture is expressed in contemporary context.

The accredited degree program must describe and then provide evidence of the relationship between the program, the administrative unit that supports it (e.g., school or college) and the institution. This includes an explanation of the program's benefits to the institutional setting, how the institution benefits from the program, any unique synergies, events, or activities occurring as a result, etc.

Finally, the program must describe and then demonstrate how the course of study and learning experiences encourage the holistic, practical and liberal arts-based education of architects.

#### [X] The program has fulfilled this requirement for narrative and evidence

**2011 Visiting Team Assessment:** The Team found evidence the program has fulfilled this requirement. The University of Michigan, as one of the oldest schools of architecture in the country has a long and rich history. Mission statements for the institution and the college broadly articulate ambitious agendas for excellence in research, scholarship and education. The program has translated its history of engagement with the built environment into the contemporary context in a variety of ways including investments in sophisticated digital fabrication technology and faculty research.

#### I.1.2 Learning Culture and Social Equity:

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

Further, the program must demonstrate that it encourages students and faculty to appreciate these values as guiding principles of professional conduct throughout their careers, and it addresses health-related issues, such as time management.

Finally, the program must document, through narrative and artifacts, its efforts to ensure that all members of the learning community: faculty, staff, and students are aware of these objectives and are advised as to the expectations for ensuring they are met in all elements of the learning culture.

• Social Equity: The accredited degree program must provide faculty, students, and staff irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation—with a culturally rich educational environment in which each person is equitably able to learn, teach, and work. This includes provisions for students with mobility or learning disabilities. The program must have a clear policy on diversity that is communicated to current and prospective faculty, students, and staff and that is reflected in the distribution of the program's human, physical, and financial resources. Finally, the program must demonstrate that it has a plan in place to maintain or increase the diversity of its faculty, staff, and students when compared with diversity of the institution during the term of the next two accreditation cycles.

# [X] The program has demonstrated that it provides a positive and respectful learning environment.

[X] The program has demonstrated that it provides a culturally rich environment in which in each person is equitably able to learn, teach, and work.

**2011 Visiting Team Assessment:** The Team found evidence the program demonstrates that it provides a positive and respectful learning environment. This is evident through conversations with both the faculty and students that the program provides a learning atmosphere that is constructive, positive and healthy.

The Team found evidence the program demonstrates a diverse student population with adequate representation of females and people of Asian nationalities. There is concern with the lack of African American representation. There is a clear policy on diversity and the Team found no sign of discrimination or favoritism. The faculty is culturally diverse and provides equal access to funding for research and tenure.

**I.1.3 Response to the Five Perspectives**: Programs must demonstrate through narrative and artifacts, how they respond to the following perspectives on architecture education. Each program is expected to address these perspectives consistently within the context of its history, mission, and culture and to further identify as part of its long-range planning activities how these perspectives will continue to be addressed in the future.

A. Architectural Education and the Academic Community. That the faculty, staff, and students in the accredited degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.<sup>1</sup> In addition, the program must describe its commitment to the holistic, practical and liberal arts-based education of architects and to providing opportunities for all members of the learning community to engage in the development of new knowledge.

## [X] The program is responsive to this perspective.

**2011 Visiting Team Assessment:** The Team found evidence that the program has responded to this perspective with distinction. The program has contributed to the University of Michigan through its scholarship, research, service and teaching in an exemplary way. The new dean has been engaged in a number of important committees within the university. The program's leadership and faculty have the support of the university administration and the respect of the broader university community. The faculty and students are engaged in university, college and department committees. The curriculum recognizes the interdisciplinary nature of architecture education and the profession and the contribution it makes to the university. The department has been an active participant in many interdisciplinary initiatives including anticipated cluster hires. There is cooperation with the engineering department through the Solar Decathlon, which included students and faculty from engineering and other disciplines. The department also sponsors lectures and symposia which features prominent national and international practitioners and theoreticians. These events have been highly visible within the school and across the campus. The dean, chair and the graduate program director are working exceptionally well to develop an enriched identity of the program, one that combines theory and practice in ways that will allow the college to advance important issues in the discipline. Interdisciplinary initiatives within the college and beyond contribute strongly to this engagement.

<sup>&</sup>lt;sup>1</sup> See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

**B.** Architectural Education and Students. That students enrolled in the accredited degree program are prepared: to live and work in a global world where diversity, distinctiveness, self-worth, and dignity are nurtured and respected; to emerge as leaders in the academic setting and the profession; to understand the breadth of professional opportunities; to make thoughtful, deliberate, informed choices and; to develop the habit of lifelong learning.

# [X] The program is responsive to this perspective.

**2011 Visiting Team Assessment:** The Team found evidence that the program has responded to this perspective with distinction. The student's energy and enthusiasm is evident. A positive attitude was noted in student discussions. Administrative changes have made great improvements to avenues of communication among students and faculty and to student support within the program. The students are passionate about their education, attention from faculty and the resources the program offers. Students made not of the success of the added support staff positions specifically a career placement advisor as well as a student life counselor. Students are highly supportive of each other. The 2G students appreciate their 3G peers and the opportunity to interact with them.

Architectural Education and the Regulatory Environment. That students enrolled in the accredited degree program are provided with: a sound preparation for the transition to internship and licensure within the context of international, national, and state regulatory environments; an understanding of the role of the registration board for the jurisdiction in which it is located, and; prior to the earliest point of eligibility, the information needed to enroll in the Intern Development Program (IDP).

# [X] The program is responsive to this perspective.

**2011 Visiting Team Assessment:** The Team found evidence that the program has provided the students with a sound preparation for transition into the profession. The regulatory agencies and processes required for licensure are presented and discussed with the students. The students are also prepared for IDP and the requirements of internship.

**C.** Architectural Education and the Profession. That students enrolled in the accredited degree program are prepared: to practice in a global economy; to recognize the impact of design on the environment; to understand the diverse and collaborative roles assumed by architects in practice; to understand the diverse and collaborative roles and responsibilities of related disciplines; to respect client expectations; to advocate for design-based solutions that respond to the multiple needs of a diversity of clients and diverse populations, as well as the needs of communities and; to contribute to the growth and development of the profession.

# [X] The program is responsive to this perspective.

**2011 Visiting Team Assessment:** The Team found evidence that the students are provided with various opportunities to get engaged and exposed to practice. There is a very complete professional practice course, career services office, externships, career fair, shadow programs and design/build summer studios. Studios teach the relationships between structures and building systems and the interaction with consultants. The students understand their roles in the natural environment as well as the built. The program also exposes the students to diverse project types and clients.

**D.** Architectural Education and the Public Good. That students enrolled in the accredited degree program are prepared: to be active, engaged citizens; to be responsive to the needs of a changing world; to acquire the knowledge needed to address pressing environmental, social, and

economic challenges through design, conservation and responsible professional practice; to understand the ethical implications of their decisions; to reconcile differences between the architect's obligation to his/her client and the public; and to nurture a climate of civic engagement, including a commitment to professional and public service and leadership.

# [X] The program is responsive to this perspective.

**2011 Visiting Team Assessment:** The Team found evidence that the program provides support for the engagement of the students in education and activities for the public good. Evidence exists in studio work, student travels to international locations, and leadership in interdisciplinary teams.

**I.1.4 Long-Range Planning**: An accredited degree program must demonstrate that it has identified multiyear objectives for continuous improvement within the context of its mission and culture, the mission and culture of the institution, and, where appropriate, the five perspectives. In addition, the program must demonstrate that data is collected routinely and from multiple sources to inform its future planning and strategic decision making.

# [X] The program's processes meet the standards as set by the NAAB.

**2011 Visiting Team Assessment:** The Team found evidence of long range planning. The new dean and very new chair are actively reviewing both short term and long range planning in conjunction with the University's 10 years planning cycles. The yearly report summarizing details of the accepted rates, standard metrics and focused comparisons of various aspect of the institution have provided a sense of direction and accomplishment.

# **I.1.5 Self-Assessment Procedures**: The program must demonstrate that it regularly assesses the following:

- How the program is progressing towards its mission.
- Progress against its defined multi-year objectives (see above) since the objectives were identified and since the last visit.
- Strengths, challenges and opportunities faced by the program while developing learning opportunities in support of its mission and culture, the mission and culture of the institution, and the five perspectives.
- Self-assessment procedures shall include, but are not limited to:
  - Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.
  - o Individual course evaluations.
  - o Review and assessment of the focus and pedagogy of the program.
  - o Institutional self-assessment, as determined by the institution.

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

# [X] The program's processes meet the standards as set by the NAAB.

**2011 Visiting Team Assessment:** The Team found evidence that the program demonstrated selfassessment with distinction. The Team was impressed with the level of the commitment of the institution in providing a broad context for internal and external self assessments, as well as outlining short term and long range goals. The comprehensive survey including data from 2008 to present clearly illuminates the requisite data in relation to the Five Perspectives.

# PART ONE (I): SECTION 2 - RESOURCES

# I.2.1 Human Resources & Human Resource Development:

#### Faculty & Staff:

- An accredited degree program must have appropriate human resources to support student learning and achievement. This includes full and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. Programs are required to document personnel policies which may include but are not limited to faculty and staff position descriptions<sup>2</sup>.
- Accredited programs must document the policies they have in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA) and other diversity initiatives.
- An accredited degree program must demonstrate that it balances the workloads of all faculty and staff to support a tutorial exchange between the student and teacher that promotes student achievement.
- An accredited degree program must demonstrate that an IDP Education Coordinator has been appointed within each accredited degree program, trained in the issues of IDP, and has regular communication with students and is fulfilling the requirements as outlined in the IDP Education Coordinator position description and regularly attends IDP Coordinator training and development programs.
- An accredited degree program must demonstrate it is able to provide opportunities for all faculty and staff to pursue professional development that contributes to program improvement.
- Accredited programs must document the criteria used for determining rank, reappointment, tenure and promotion as well as eligibility requirements for professional development resources.

# [X] Human Resources (Faculty & Staff) are adequate for the program

**2011 Visiting Team Assessment:** The team found evidence that the program has dealt with this portion of resources with distinction. Faculty and Staff are providing an exemplary educational environment for the students. The faculty workload is balanced and given time for research. The University has provided opportunities for faculty through research grants, travel abroad and fellowships, which contribute to determination of ranking, reappointment, tenure and promotion as well as eligibility requirements.

- Students:
  - An accredited program must document its student admissions policies and procedures. This documentation may include, but is not limited to application forms and instructions, admissions requirements, admissions decisions procedures, financial aid and scholarships procedures, and student diversity initiatives. These procedures should include first-time freshman, as well as transfers within and outside of the university.
  - An accredited degree program must demonstrate its commitment to student achievement both inside and outside the classroom through individual and collective learning opportunities.

## [X] Human Resources (Students) are adequate for the program

**2011 Visiting Team Assessment:** The team found evidence of documentation of student admission policies and procedures and a strong commitment to student achievement.

# I.2.2 Administrative Structure & Governance:

Administrative Structure: An accredited degree program must demonstrate it has a measure of administrative autonomy that is sufficient to affirm the program's ability to conform to the conditions for accreditation. Accredited programs are required to maintain an organizational chart describing the administrative structure of the program and position descriptions describing

<sup>&</sup>lt;sup>2</sup> A list of the policies and other documents to be made available in the team room during an accreditation visit is in Appendix 3.

the responsibilities of the administrative staff. Administrative structure of the program and position descriptions describing the responsibilities of the administrative staff.

# [X] Administrative Structure is adequate for the program

**2011 Visiting Team Assessment:** The team found evidence that Administrative Structure has been met with distinction. The program benefits from an exceptionally strong administrative team. The dean and associate deans together with the chair and graduate director are devoted to maintaining and enhancing the equality of the educational experience for the students. A very capable group of staff members offer a high level of support to students and faculty.

• **Governance:** The program must demonstrate that all faculty, staff, and students have equitable opportunities to participate in program and institutional governance.

## [X] Governance opportunities are adequate for the program

**2011 Visiting Team Assessment:** The Team found evidence of equitable governance. Faculty committees are involved in many aspects of institutional governance. Students are also included in many of these committees. A faculty elected committee is charged with assisting the dean on decisions regarding faculty actions. A promotion and tenure committee is appointed by this group.

**I.2.3 Physical Resources**: The program must demonstrate that it provides physical resources that promote student learning and achievement in a professional degree program in architecture. This includes, but is not limited to the following:

- Space to support and encourage studio-based learning
- Space to support and encourage didactic and interactive learning.
- Space to support and encourage the full range of faculty roles and responsibilities including preparation for teaching, research, mentoring, and student advising.

## [X] Physical Resources are adequate for the program

**2011 Visiting Team Assessment:** The Team found evidence that the physical resources provided promote student learning and achievement. The facilities are exemplary for the student population at existing levels. There is space for studio-based learning and full support facilities including a well appointed fab lab and shops. There is a need for a meeting room large enough for whole school gatherings and lectures. Faculty offices are adequate but not at the same level are the rest of the facilities.

**I.2.4 Financial Resources**: An accredited degree program must demonstrate that it has access to appropriate institutional and financial resources to support student learning and achievement.

## [X] Financial Resources are adequate for the program

**2011 Visiting Team Assessment:** The team found evidence of significant financial resources. The program has benefitted greatly from the financial support of the Taubman endowment. Faculty salaries are appropriate and research funding is available from both the university and the college. Many graduate students receive funding as teaching assistants and all students have access to travel funds for courses which include national and international travel.

**I.2.5 Information Resources**: The accredited program must demonstrate that all students, faculty, and staff have convenient access to literature, information, visual, and digital resources that support professional education in the field of architecture.

Further, the accredited program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resources professionals who provide information services that teach and develop research and evaluative skills, and critical thinking skills necessary for professional practice and lifelong learning.

# [X] Information Resources are adequate for the program

**2011 Visiting Team Assessment:** The Team found evidence that the information services available are at a level of distinction. The team was very impressed with the resources in both the main building and the neighboring facility.

# PART I: SECTION 3 -REPORTS

**I.3.1 Statistical Reports**<sup>3</sup>. Programs are required to provide statistical data in support of activities and policies that support social equity in the professional degree and program as well as other data points that demonstrate student success and faculty development.

- Program student characteristics.
  - Demographics (race/ethnicity & gender) of all students enrolled in the accredited degree program(s).
    - Demographics compared to those recorded at the time of the previous visit.
    - Demographics compared to those of the student population for the institution overall.
  - Qualifications of students admitted in the fiscal year prior to the visit.
    - Qualifications of students admitted in the fiscal year prior to the upcoming visit compared to those admitted in the fiscal year prior to the last visit.
  - Time to graduation.
    - Percentage of matriculating students who complete the accredited degree program within the "normal time to completion" for each academic year since the previous visit.
    - Percentage that complete the accredited degree program within 150% of the normal time to completion for each academic year since the previous visit.
- Program faculty characteristics
  - Demographics (race/ethnicity & gender) for all full-time instructional faculty.
    - Demographics compared to those recorded at the time of the previous visit.
    - Demographics compared to those of the full-time instructional faculty at the institution overall.
  - Number of faculty promoted each year since last visit.
    - Compare to number of faculty promoted each year across the institution during the same period.
  - Number of faculty receiving tenure each year since last visit.
    - Compare to number of faculty receiving tenure at the institution during the same period.
  - Number of faculty maintaining licenses from U.S. jurisdictions each year since the last visit, and where they are licensed.

## [X] Statistical reports were provided and provide the appropriate information

**2011 Visiting Team Assessment:** The Team found evidence the program's statistical reports are thorough and that required information has been provided.

**I.3.2. Annual Reports**: The program is required to submit annual reports in the format required by Section 10 of the 2009 NAAB Procedures. Beginning in 2008, these reports are submitted electronically to the NAAB. Beginning in the fall of 2010, the NAAB will provide to the visiting team all annual reports submitted since 2008. The NAAB will also provide the NAAB Responses to the annual reports.

The program must certify that all statistical data it submits to NAAB has been verified by the institution and is consistent with institutional reports to national and regional agencies, including the Integrated Postsecondary Education Data System of the National Center for Education Statistics.

The program is required to provide all annual reports, including statistics and narratives that were submitted prior to 2008. The program is also required to provide all NAAB Responses to annual reports transmitted prior to 2008. In the event a program underwent a Focused Evaluation, the Focused

<sup>&</sup>lt;sup>3</sup> In all cases, these statistics should be reported in the same format as they are reported in the Annual Report Submission system.

Evaluation Program Report and Focused Evaluation Team Report, *including appendices and addenda should also be included.* 

## [X] Annual Reports and NAAB Responses were provided and provide the appropriate information

**2011 Visiting Team Assessment:** The Team found evidence the annual reports, responses to these reports, statistics and narratives have been submitted to NAAB and were made available.

**I.3.3 Faculty Credentials**: The program must demonstrate that the instructional faculty are adequately prepared to provide an architecture education within the mission, history and context of the institution.

In addition, the program must provide evidence through a faculty exhibit<sup>4</sup> that the faculty, taken as a whole, reflects the range of knowledge and experience necessary to promote student achievement as described in Part Two. This exhibit should include highlights of faculty professional development and achievement since the last accreditation visit.

# [X] Faculty credentials were provided and demonstrate the range of knowledge and experience necessary to promote student achievement.

**2011 Visiting Team Assessment:** The Team found evidence that the credentials of the faculty have been demonstrated with distinction. The range of knowledge, experience and professional development is exemplary.

<sup>&</sup>lt;sup>4</sup> The faculty exhibit should be set up near or in the team room. To the extent the exhibit is incorporated into the team room, it should not be presented in a manner that interferes with the team's ability to view and evaluate student work.

# PART ONE (I): SECTION 4 - POLICY REVIEW

The information required in the three sections described above is to be addressed in the APR. In addition, the program shall provide a number of documents for review by the visiting team. Rather than be appended to the APR, they are to be provided in the team room during the visit. The list is available in Appendix 3.

[X] The policy documents in the team room were responsive to the requirements of Appendix 3

# PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

# PART TWO (II): SECTION 1 – STUDENT PERFORMANCE -- EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA

**II.1.1 Student Performance Criteria:** The SPC are organized into realms to more easily understand the relationships between individual criteria.

# **Realm A: Critical Thinking and Representation:**

Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making. Students' learning aspirations include:

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community, and society.

# A.1. Communication Skills: *Ability to* read, write, speak and listen effectively.

## [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in both coursework and studio work.

A. 2. Design Thinking Skills: *Ability to* raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.

## [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in all studio work and in Arch 660: Thesis Seminar.

A. 3. Visual Communication Skills: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in coursework Arch 516: Representation, Arch 572: Theory and Criticism and in studio work Arch 552: Architectural Design Studio.

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

# [X] Not Met

**2011 Visiting Team Assessment:** This criterion is <u>not</u> met. Work produced in design studios, representation course and construction courses show the ability to make technically clear drawings and to prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for building design. There was however no evidence of an outline specification

# A.5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

# [X] Met

**2011 Visiting Team Assessment:** This Criterion was met. The Team found evidence of ability in coursework Arch 572: Theory and Criticism, Studio work Arch 552: Architecture Design Studio and in Arch 660: Thesis Seminar.

# A. 6. Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.

# [X] Met

**2011 Visiting Team Assessment:** This criterion was met. The Team found evidence of ability in all of the design studios particularly in Arch 422: Architecture Design Studio, Arch 552: Architecture Design Studio and 672: Comprehensive Design Studio.

# A. 7. Use of Precedents: *Ability* to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in coursework Arch 589: Site Operations and in studio work 672: Comprehensive Design Studio.

A. 8. Ordering Systems Skills: *Understanding* of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in various coursework including Arch 417: Construction.

A. 9. Historical Traditions and Global Culture: *Understanding* of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 413: History of Architecture and Urbanism and to a lesser degree in Arch 589: Site Operations.

A. 10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 416: Design Fundamentals and in Arch 660: Thesis Seminar.

# A.11. Applied Research: *Understanding* the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 425: Sustainable Systems II and in Arch 660: Thesis Seminar.

**Realm A. General Team Commentary:** The team felt that critical thinking and representation have been adequately presented to the students and found evidence that criteria within this realm have been met with the exception of an outline specification as required in A.4.

**Realm B: Integrated Building Practices, Technical Skills and Knowledge:** Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally they must appreciate their role in the implementation of design decisions, and their impact of such decisions on the environment. Students learning aspirations include:

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principles of sustainable design.
- B. 1. Pre-Design: *Ability* to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in all studio courses.

B. 2. Accessibility: *Ability* to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in coursework Arch 527: Building Systems, Arch 589: Site Operations and in Studio work Arch 672: Comprehensive Design Studio. The program teaches universal design in coursework as opposed to simply mobility issues.

B. 3. Sustainability: *Ability* to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in coursework Arch 315: Sustainable Systems, Arch 425: Sustainable Systems II, Arch 589: Site Operations and in studio work.

B. 4. Site Design: *Ability* to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in coursework Arch 589: Site Operations and studio work Arch 412: Architecture Design Studio, Arch 672: Comprehensive Design Studio.

# B. 5. Life Safety: *Ability* to apply the basic principles of life-safety systems with an emphasis on egress.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in coursework Arch 527: Building Systems and studio work Arch 672: Comprehensive Design Studio.

B. 6. Comprehensive Design: *Ability* to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:

A.2. Design Thinking Skills	B.2. Accessibility	
A.4. Technical Documentation	B.3. Sustainability	
A.5. Investigative Skills	B.4. Site Design	
A.8. Ordering Systems	B.5. Life Safety	
A.9. Historical Traditions and	B.7. Environmental Systems	
Global Culture	B.9.Structural Systems	

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability in various coursework and in studio work Arch 672: Comprehensive Design Studio. There is concern that all of the SPC's listed are taught consistently between all of the studio sections.

B. 7 Financial Considerations: *Understanding* of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 417: Construction, Arch 527: Building Systems and Arch 583: Professional Practice.

B. 8. Environmental Systems: *Understanding* the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

[X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in course work Arch 527: Building Systems and studio work Arch 672: Comprehensive Design Studio.

B. 9. Structural Systems: *Understanding* of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 314: Structures I, Arch 324: Structures II and Arch 527: Building Systems.

B. 10. Building Envelope Systems: *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.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 527: Building Systems and in studio work Arch 672: Comprehensive Design Studio.

B. 11. Building Service Systems Integration: *Understanding* of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 527: Building Systems and in studio work Arch 672 Comprehensive Design Studio.

B. 12. Building Materials and Assemblies Integration: *Understanding* of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met with distinction. The Team found significant evidence of understanding in course work Arch 417: Construction, Arch 527: Building Systems and in studio work Arch 672: Comprehensive Design Studio.

**Realm B. General Team Commentary:** The team felt that integrated building practices have been adequately presented to the students and found evidence that criteria within this realm have been met. The Team is encouraged by the programs approach to comprehensive design and feels confident this studio will continue to thrive and improve.

# **Realm C: Leadership and Practice:**

Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills. Student learning aspirations include:

- Knowing societal and professional responsibilities
- Comprehending the business of building.
- Collaborating and negotiating with clients and consultants in the design process.
- Discerning the diverse roles of architects and those in related disciplines.
- Integrating community service into the practice of architecture.

# C. 1. Collaboration: *Ability* to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of ability of collaborative efforts in coursework, design studios, and required lecture courses.

# C. 2. Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 315: Sustainable Systems I, Arch 425: Sustainable Systems II, Arch 589: Site Operations and in studio work.

C. 3 Client Role in Architecture: *Understanding* of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 583: Professional Practice, and Arch 660: Thesis Seminar.

C. 4. Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods

[X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 583: Professional Practice.

C. 5. Practice Management: *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 583: Professional Practice.

C. 6. Leadership: *Understanding* of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 583: Professional Practice and was impressed with the interaction with the students during the visit.

C. 7. Legal Responsibilities: *Understanding* of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

## [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 417: Construction and Arch 583: Professional Practice.

C. 8. Ethics and Professional Judgment: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues, and responsibility in architectural design and practice.

# [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 583: Professional Practice.

C. 9. Community and Social Responsibility: *Understanding* of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

## [X] Met

**2011 Visiting Team Assessment:** This criterion is met. The Team found evidence of understanding in coursework Arch 416: Design Fundamentals, Arch 583: Professional Practice and in studio work.

**Realm C. General Team Commentary:** The team felt that leadership and practice have been adequately presented to the students and found evidence that criteria within this realm have been met.

# PART TWO (II): SECTION 2 - CURRICULAR FRAMEWORK

**II.2.1 Regional Accreditation**: The institution offering the accredited degree program must be or be part of, an institution accredited by one of the following regional institutional accrediting agencies for higher education: the Southern Association of Colleges and Schools (SACS); the Middle States Association of Colleges and Schools (MSACS); the New England Association of Schools and Colleges (NEASC); the North Central Association of Colleges and Schools (NCACS); the Northwest Commission on Colleges and Universities (NWCCU); and the Western Association of Schools and Colleges (WASC).

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The Team found evidence that the institution is accredited by the North Central Association of Colleges and Schools (NCACS).

**II.2.2 Professional Degrees and Curriculum**: The NAAB accredits the following professional degree programs: the Bachelor of Architecture (B. Arch.), the Master of Architecture (M. Arch.), and the Doctor of Architecture (D. Arch.). The curricular requirements for awarding these degrees must include professional studies, general studies, and electives. Schools offering the degrees B. Arch., M. Arch., and/or D. Arch. are strongly encouraged to use these degree titles exclusively with NAAB-accredited professional degree programs.

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The team found evidence that the program only offers degree titles per NAAB requirements and includes professional studies, general studies and electives.

# II.2.3 Curriculum Review and Development

The program must describe the process by which the curriculum for the NAAB-accredited degree program is evaluated and how modifications (e.g., changes or additions) are identified, developed, approved, and implemented. Further, the NAAB expects that programs are evaluating curricula with a view toward the advancement of the discipline and toward ensuring that students are exposed to current issues in practice. Therefore, the program must demonstrate that licensed architects are included in the curriculum review and development process.

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The team found evidence that the Dean, Chair and Faculty which include licensed architects have input into the process that evaluates curriculum and keeps it current.

# PART TWO (II) : SECTION 3 - EVALUATION OF PREPARATORY/PRE-PROFESSIONAL EDUCATION

Because of the expectation that all graduates meet the SPC (see Section 1 above), the program must demonstrate that it is thorough in the evaluation of the preparatory or pre-professional education of individuals admitted to the NAAB-accredited degree program.

In the event a program relies on the preparatory/pre-professional educational experience to ensure that students have met certain SPC, the program must demonstrate it has established standards for ensuring these SPC are met and for determining whether any gaps exist. Likewise, the program must demonstrate it has determined how any gaps will be addressed during each student's progress through the accredited degree program. This assessment should be documented in a student's admission and advising files.

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The Team found evidence that the program evaluates the required courses from all undergraduate programs whose graduates apply to the University of Michigan's graduate school including international programs. Deficiencies are identified and the student is made aware in advance of entering the program what remedial courses if any need to be taken.

### PART TWO (II): SECTION 4 - PUBLIC INFORMATION

#### II.4.1 Statement on NAAB-Accredited Degrees

In order to promote an understanding of the accredited professional degree by prospective students, parents, and the public, all schools offering an accredited degree program or any candidacy program must include in catalogs and promotional media the exact language found in the 2009 NAAB Conditions for Accreditation, Appendix 5.

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The team found the exact language found in the 2009 NAAB Conditions for Accreditation, Appendix 5 on the taubmancollege.umich.edu website.

## **II.4.2 Access to NAAB Conditions and Procedures**

In order to assist parents, students, and others as they seek to develop an understanding of the body of knowledge and skills that constitute a professional education in architecture, the school must make the following documents available to all students, parents and faculty:

The 2009 NAAB Conditions for Accreditation The NAAB Procedures for Accreditation (edition currently in effect)

## [X] Met

**2011 Visiting Team Assessment:** This condition is met. The team found these documents were made available as links on the taubmancollege.umich.edu website.

## II.4.3 Access to Career Development Information

In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of accredited degree programs, the program must make the following resources available to all students, parents, staff, and faculty:

www.ARCHCareers.org The NCARB Handbook for Interns and Architects Toward an Evolution of Studio Culture The Emerging Professional's Companion www.NCARB.org www.aia.org www.aias.org www.acsa-arch.org

## [X] Met

**2011 Visiting Team Assessment:** This condition is met. The team found these resources were made available as links on the taubmancollege.umich.edu website.

## II.4.4 Public Access to APRs and VTRs

In order to promote transparency in the process of accreditation in architecture education, the program is required to make the following documents available to the public:

All Annual Reports, including the narrative All NAAB responses to the Annual Report The final decision letter from the NAAB The most recent APR The final edition of the most recent Visiting Team Report, including attachments and addenda These documents must be housed together and accessible to all. Programs are encouraged to make these documents available electronically from their websites.

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The Team found that these documents are housed together in the architecture program office and is so stated on the taubmancollege.umich.edu website. We would however encourage the program to provide and electronic link to these documents from their website.

# II.4.5 ARE Pass Rates

Annually, the National Council of Architectural Registration Boards publishes pass rates for each section of the Architect Registration Examination by institution. This information is considered to be useful to parents and prospective students as part of their planning for higher/post-secondary education. Therefore, programs are required to make this information available to current and prospective students and their parents either by publishing the annual results or by linking their website to the results.

# [X] Met

**2011 Visiting Team Assessment:** This condition is met. The Team found the link on the taubmancollege.umich.edu website to the NCARB published pass rates.

# III. Appendices:

# 1. Program Information

[Taken from the Architecture Program Report, responses to Part One: Section 1 Identity and Self-Assessment]

# A. History and Mission of the Institution

# Mission

The mission of the University of Michigan is to serve the people of Michigan and the world through preeminence in creating, communicating, and preserving the application of knowledge and artistic and academic values, and in developing leaders and citizens who will challenge the present and enrich the future.

# Institutional Structure

The University of Michigan is governed by eight regents elected at large in the state. Each regent serves for eight years, without compensation, with two chosen at each biennial state election. The President of the University is a non-voting regent. In addition to the President, the executive officers of the University include the Provost and Executive Vice President for Academic Affairs; Executive Vice President and Chief Financial Officer; Vice President and Secretary of the University; Vice President and General Counsel; Vice Presidents for Government Relations, Development, Research, Communications, and Student Affairs; Executive Vice President for Medical Affairs; and Chancellors of the regional campuses at Flint and Dearborn.

On the Ann Arbor campus, each of the 19 schools and colleges is administered by a Dean, who is appointed by the Regents for a term of five years. The Deans report to the Provost and Vice President for Academic Affairs, who is directly responsible to the President of the University. In accordance with the Bylaws of the Board of Regents, all educational matters within each academic unit are the responsibility of the faculty of that unit. Considerable autonomy is granted to each unit in the organization and management of its affairs in fulfilling its educational mission. The University also operates 39 centers, 18 institutes, two bureaus, and nine hospital units in the University of Michigan Medical Center. The University's instructional staff is about 8,400 persons. Total student enrollment in the University is approximately 58,000 with approximately 41,600 on the Ann Arbor campus. Of the students on the Ann Arbor campus: 71% are undergraduates and 29% are graduate/professional; 61% are Michigan residents, 32% are out-of-state residents and 7% are international. Nearly 15,000 degrees are awarded annually. The University alumni body now exceeds 499,000 living persons.

# Institutional Vision

As the University of Michigan prepares to embark on its third century, we fully embrace the legacy bestowed upon us by President James B. Angell in our first century. We are proud to offer "an uncommon education for the common man."

We are a community of learners. We serve our multiple constituents by providing access to and participation in scholarly and creative endeavors on a vast scale. Our academic research enterprise affects the world. The University is defined by a culture of interdisciplinary teaching and research, coupled with academic rigor. We encourage our students, faculty and staff to transcend disciplinary boundaries by tackling complex and vexing challenges facing modern societies at local, national and global levels. We endorse and promote creativity in its many facets. We recognize the arts as a fundamental human need and a foundation that helps to define our future. We create new knowledge and share the joy of discovery, and we see information technology as a powerful means for broadening access to knowledge and exchanging ideas.

We draw from study and experience to prepare our students for leadership in a wide range of social endeavors, including government, law, education, medicine and business, reflecting the University's many roles in contributing to good design and decision making within major domestic and international institutions.

We celebrate and promote diversity in all its forms, seeking the understanding and perspective that distinct life experiences bring. We proclaim ourselves a scholarly community in which ideas may be freely expressed and challenged, and all people are welcomed, respected and nurtured in their academic and social development.

We dedicate ourselves to ethical and responsible stewardship of financial, physical and environmental resources. We look for tools and strategies to create and enhance sustainable practices in all facets of operations and seek to lead in the global quest for a sustainable future.

(Excerpted from President Mary Sue Coleman's Vision Statement)

# B. History and Mission of the Program

#### Taubman College of Architecture and Urban Planning

The Taubman College of Architecture and Urban Planning is one of 19 colleges on the Ann Arbor campus. As one of the university's smaller units, with approximately 699 total students (499 in architecture, 147 in urban planning, 14 in urban design, and 39 in the real estate certificate program), we are an intimate learning community within a large university. We benefit from collaborative opportunities with world-renowned programs (Engineering, Business, History of Art, and others) as well as funding initiatives, university-wide events, and the attraction our greater institution holds for potential students from around the world. From individual faculty collaborations to curricular initiatives that structure interdisciplinary experiences for students, the architecture program aims to benefit from the expansive virtues of the university at large while maintaining a student-centered program.

Located in Ann Arbor, a small yet culturally vibrant city, Taubman College has powerful connections to the Great Lakes region, East and West Coasts, and global partners. We also share a binding affiliation with Detroit, a raw and demanding physical environment that serves as an explicit example of America's rapidly changing cities. As a locus of diverse, vital, ethnic neighborhoods, technical innovation and artistic production, Detroit provides both inspiration and challenges to the work of our faculty and students.

The architecture program at the Taubman College of Architecture and Urban Planning recognizes the diverse and ever-changing nature of the architect's role, with a program designed to prepare students to perceive the complex relationships between people and their environment and to translate that complexity into meaningful and relevant designs for the enrichment of human experience. Architecture's agency depends on the depth and breadth of its engagement with contemporary culture. Critical immersion provides the basis for meaningful production and is the foundation for the study of architecture at the University of Michigan.

#### History of the College

Architecture classes were first taught at the University of Michigan in 1876, and had those courses continued uninterrupted, it would now be the third oldest architecture program in the nation, following MIT and Cornell. Because funding was not renewed, however, it was not until 1906 that architecture was permanently established as a course of study at Michigan, within the engineering school. In 1931, an independent college of architecture and design was established, offering programs in architecture, art, design, and landscape architecture, with the latter discipline migrating to the School of Natural Resources and Environment in 1965. A program in urban planning was added in 1968. The college moved from Central Campus to a new building on North Campus in 1974, the same year that a separate School of Art & Design was established in the same building. The Master of Urban Design degree program was added in 2000. Since the mid-20th century, the college has been headed by Deans Philip N. Yountz (1957–1964), Reginald F. Malcolmson (1964–1974), Robert C. Metcalf (1974–1986), Robert M. Beckley (1987–1997), James C. Snyder (interim 1997–1998), Douglas S. Kelbaugh (1998–2008), and Monica Ponce de Leon (appointed in 2008).

A succinct timeline of historical events can be found on our website: http://www.taubmancollege.umich.edu/about/the\_college/history/

#### Mission of the College

At Taubman College we recognize that we are a public university with a public mission that changes in response to changing aspects of public life in the state and the nation. We are on the front lines of a shift from the manufacturing economy of the last century to a knowledge-based economy of the present and future. This geographic and economic reality encourages dynamic change, and has affected our educational mission in exciting ways. The architecture program and the Taubman College are taking this challenge head-on, investigating new methods of design and fabrication, and emphasizing the development of new educational products suited to our changing economy and the new roles our students will assume in the world beyond the academy. Because similar changes are occurring in all parts of the globe, with increasingly automated manufacturing driven by knowledge-based economies in varying locations, we feel that the vicissitudes of Michigan's history have equipped us particularly well to function as an international school of architecture. The combination of programs in architecture and urban and regional planning at the Taubman College provides a wider perspective on this change and facilitates a thoughtful, critical response to the transitions required for knowledge-based economies in all parts of the globe.

Addressing these shifting concerns for over 100 years, Taubman College offers students from the state, the country, and around the globe a complement of disciplinary and interdisciplinary degree programs that range from pre-professional to post-professional to Ph.D. Our committed and energetic faculty, staff, and students form a diverse, creative, and collaborative community within the University of Michigan, one of the world's largest and most distinguished research universities.

Taubman College seeks to improve the human condition through thoughtful design and planning for the built environment. Its academic programs prepare graduates for positions of responsibility within a wide spectrum of professions, organizations, and institutions that shape the built environment at scales ranging from local to global. Taubman College conducts innovative design and policy research and serves the community, the state, the nation, and the world through outreach and partnerships.

Taubman College has a long educational tradition that combines design and technology. Today, it continues to foster a broad view of architecture and urban and regional planning in the context of a major research university where interdisciplinary initiatives are encouraged and supported.

#### Goals of the College

Three intertwined goals provide the focus for our current direction in preparing future leaders of the profession and discipline: to link our legacy of design and technology in new ways to broaden the architect's role; to examine methods of architectural education by harnessing interdisplinarity to reaffirm the discipline's strategic cultural and social roles; and to expand the role of architects in contemporary society; and increase their relevance to world challenges such as energy and economy. These goals underlie the research/creative work undertaken by our constituency (the diversity of faculty, students and staff) and foster connections to a global culture, all of which coalesce to structure our curriculum and realize our mission

#### Research:

Taubman College emphasizes research in all areas of its programs and curriculum. As a unit of the University, Taubman has access to a robust program of university research funding through the Office of the Vice President for Research (OVPR). OVPR offers a range of matching grants, and is coordinated with internal grant funding entities such as the Center for Research on Learning and Teaching (CRLT) and the Graduate Research Opportunities for Collaborative Spaces (GROCS). See http://research.umich.edu/.

The College maintains a doctoral program that conducts original research in three areas: Design Studies, History and Theory, and Building Technology. In addition, design faculty can compete for internal research grants in the Research Through Making Program, inaugurated by our Dean in 2009 to advance research in design and fabrication, areas typically lacking in such funding, and to support the research efforts of architects.

## Regional Outreach:

As we seek to broaden the core concerns of the architectural profession, our geographic proximity to Detroit offers valuable opportunities for engaging the contemporary world through issues ranging from the challenges of Detroit's problems with urban poverty and racial segregation, to the benefits of cultural diversity and the city's emerging successes of urban farming initiatives and small-scale fabrication innovations.

Working with urban and regional planning and urban design, the architecture program has reached out to the region of southeastern Michigan, particularly through the Detroit Community Design Center (DCDC), established in 2005, and through individual faculty efforts in Flint, Michigan. The DCDC program sponsors research in partnership with other funding agencies in the city of Detroit, teaches local high school students (NEA and donor-supported), collaborates on community design projects, and acts as a design resource for various organizations in the city.

### Global Outreach:

On the College level, international programs are in place in Beijing, China and Florence, Italy. Discussions are in the works for a relationship with the National University of Singapore and Delft University. Summer travel opportunities rotate, and have included studios in Taiwan, Argentina, Spain, Iceland, Japan, Germany, Ghana, France, and Italy. Taubman College is also a member of International Architecture and Engineering Student Training and Exchange (IAESTE), which places students in international internships and practice. Dual Degrees:

In addition, our college has embraced the potentials of dual degrees by making it possible for Master of Architecture students to combine their architecture degree with: Master of Urban Planning

Master of Urban Planning Master of Urban Design Master of Business Administration Master of Engineering Master of Science in Design Research

Currently under development (in addition to the two-year-old Master of Science in Design Research) are new Master of Science programs in:

Historic Preservation/Conservation Design + Health Digital Fabrication

# C. Long-Range Planning

New leadership at both the Dean and Chair levels (Dean Monica Ponce de Leon and Chair John McMorrough) since our last accreditation visit coincides with timely self-reflection and opportunities for mapping our future. Looking closely within the program itself (for example, through focused curricular discussion) and from the outside, through orchestration of public debate - including a series of "Futures" conferences that are bringing top thinkers to Michigan ("Future of Technology" this fall, which follows on the heels of "Future of Design" and "Future of Urbanism") - we are in the process of actively reevaluating our priorities.

Long-range planning is intimately connected to our institutional mission and goals discussed earlier (section I.1.1) and with our response to the Five Perspectives. The architecture program uses several means of identifying objectives and mechanisms for improvement, some with a regular predictable rhythm (faculty meetings, task forces, committees) and others at larger intervals, such as internal and external university assessments. The five perspectives are integrated to varying degrees into our planning, such as the aspiration to weave social justice and sustainability into several courses, if not across the entire curriculum.

Architecture is at a critical point in its history. Environmental issues are bringing into question old modes of thinking and exposing the limits of how these fields were conceived. It is clear that our patterns of consumption have led to a disastrous impact on the globe. Buildings and their proliferation in the landscape have played a critical role in the creation of the problem. Architects must take responsibility and provide leadership if a true solution is to be achieved.

Technological advances are dramatically influencing architecture and urban planning; as a result the fields are poised to undergo dramatic changes over the next decade. Digitization continues to transform the way we imagine space, transfer information, and construct our material reality. Technology is transforming the building industry, and these changes impact the way buildings, sites and cities are conceptualized and developed. Just as the digital revolution of the '80s affected the way we represent buildings and sites, digital technology is rapidly changing the way building components are fabricated and assembled.

The diversity of the faculty, its breadth of knowledge and expertise, are fundamental to considering the cultural impact and relevance of our fields. In addition, the university as a whole has a long history of commitment to research and interdisciplinarity, two traditions that will be the key to addressing ongoing transformations in our fields.

During the last two years, faculty have participated in a series of brainstorming sessions to look at the history of academic components, how other schools are currently approaching them, and how each impacts its field. Together we are beginning to formulate answers to the question "can we do better?" Most of the topics for these brainstorming sessions have come out of one-on-one meetings with the faculty and out of conversations with the Chairs prior to the beginning of each term.

Distinct metrics guide our sense of direction and accomplishment. The quality of our faculty and students is our most important asset. Accomplishments of the faculty are submitted through annual faculty activity reports (FARs) that illuminate individual achievement, allowing the program to summarize its collective impact in external publications and media, such as our College website, *Portico, ACSA News*, and internal publications such as *Middle Out*, Michigan Fellowships, and the Michigan Architecture Papers (MAP) series.

Evaluating teaching performance each semester takes the primary form of course evaluations. This process has moved to an online response and collection system. Students have a well-publicized time frame to log in and evaluate their teachers, both numerically and qualitatively through prose. Faculty are able to view these evaluations after grades have been submitted for the term. Additionally, college administrators also have reading access and use the University Committee's data to inform one-on-one mentoring sessions with the Chair, as well as using the information to shape teaching assignments. The data are conveyed in various ways relative to both college-wide and university-wide averages, enabling faculty members to comprehend relative comparisons.

Two years ago when the Dean shared her response to the University assessment of our College, faculty discussed the strategies for addressing concerns and endorsed experimenting with new models of education.

The ratio of faculty to student is another factor that has warranted considerable attention this past year. Studios sizes, for example, have dropped from an average of fifteen or sixteen students to a maximum of twelve. Providing the physical atmosphere and space for optimizing instruction, research, and interaction among constituents and activities is also a priority. This topic was addressed with a thorough report from the space planning committee this year. (see Physical Resources for details)

Each year following the admissions season, the admissions staff compiles a report summarizing details of our applicants, including the standard metrics of test score averages, grade point averages, acceptance rates, and yield rates. More significantly, it includes information concerning those applicants who chose not to attend, why they did not choose Michigan, and in most cases, which institution they did choose. These details enable a more focused comparison of institutional image, curricula, financial aid packages, recruitment efforts, and admissions processes. The report is shared at faculty meetings or in smaller committees whose charge is recruitment.

# D. Self-Assessment

At the start of each academic year, a faculty meeting provides a context for outlining and reminding faculty of our larger goals, both specific for the year (such as planning two international conferences, fulfilling additional space requirements, or considering the directions of curricular reform by establishing focused topics, such as how drawing integrates across levels of instruction) and with longer term implications (initiating discussions of new programs such as the expanded Master of Science postprofessional degrees or ideas about the role of thesis in the graduate program, etc).

In her first year, the Dean established several faculty committees charged with selfassessment, followed by suggestions for improvement. These committees include the Technology Committee, Space Planning Committee, Interdisciplinary Committee and the Detroit Group. These committees included faculty, staff and students. These committees, some of which are ongoing, report to the Dean and Chairs. The technology committee, in particular, generates concrete goals that are being addressed with equipment and software purchases for student and faculty use.

Results of faculty, student and graduate assessment of both our curriculum and the broader context in which we operate are gathered in several ways: 1) Through meetings with external groups, such as the regular board of govenors – the alumni board – who convene twice a year. (These dedicated volunteers, who subsidize their own visit, spend a full day hearing program reports, reviewing and judging student work, and interviewing and meeting with students); and 2) Internally with student groups who meet weekly with the architecture Chair to report concerns with class offerings and suggest specific curricular ideas. We recently launched a series of spring (most institutions call them summer) courses at the repeated request of graduates who wanted the opportunity to bear lighter course loads at thesis time for better concentration and performance.

A comprehensive survey issued to recent graduates (2008 - present) illuminates strengths (and weaknesses) of program preparation in relation to the Five Perspectives. Based upon a fairly high response rate (more than one third of each class responding), we find strengths in preparing students to continue asking questions and examining themselves in relation to their contexts. The responding cohort averages 4.79 out of 5.00 (for 2010 graduates) and 4.66 (2008-2009 graduates) when asked whether they were "well prepared" (5.0), "somewhat prepared" (3.0) or unprepared (1.0) to continue a habit of lifelong learning. (See Appendix 1: Comprehensive Student Survey). Additionally the second and third highest rankings for preparedness in the same survey are "responding to the needs of a diverse and changing world" and "contributing to the growth and development of the profession." Taken together they suggest that instilling a love for learning yields increased contributions to and involvement in the profession at large.

Another recent structural mechanism for self-assessment is an end of term internal review of studio work by level, involving the studio faculty and the Chair, with no students present. For example, the third semester undergraduate studio professors gather and pin up examples of high pass and minimum pass student work. The point is not only to compare head-to-head studio results from across the various sections, but also to revisit objectives, successes, how work is leading to the goals for the next term, and what skills and concepts are missing or need to be reinforced. This review also insures that grades are equitably distributed across the various studios. This is proving to be a charged, energetic session with curricular and personal implications. Teachers seeing themselves directly through the student work and in relation to their peers is immensely revealing,

initiating discussion of such issues as proper times to shift scales, how many models should be required, and specific types of drawing and media to be utilized.

This past year we instituted an annual accreditation review retreat, where NAAB criteria are pinned to the wall, faculty indicate where they feel their classes make contributions, and then we discuss each criterion through the lens of all course offerings. This provides faculty members with a valuable overview of their individual roles within the broader curricular structure.

#### Institutional Assessment

The University of Michigan requires an internal assessment of each of its colleges at least once every ten years. This is a rigorous undertaking staffed and initiated by the Office of the Provost. Our College underwent such an assessment in 2007-08. Two teams (one internal to the University and one external) reviewed our college by reading a comprehensive strategic assessment, conducting a series of interviews with faculty, students, and staff, and by observing design reviews. Each of the final reports offers critical and constructive views of the architecture program with several key comments highlighting their conclusions.

Quoting from the external report dated June 12, 2008 signed by external assessment committee chair, Gary Hack:

The Taubman College of Architecture/Urban Planning at the University of Michigan has made extraordinary progress over the last ten years. It has risen from a capable but undistinguished set of programs in the late 1990s to one of the very top programs of its sort in the country in 2008. By any quantifiable measure the transformation is extremely impressive. Three dozen outstanding tenured and tenure-track personnel have been hired reflecting a 75% turnover in faculty. Faculty are extremely prolific, producing more books and design recognitions in the last decade than in the previous nine decades of the college. Students come into the college with much higher test scores than before and garner more prizes, honors and awards while in their programs than their predecessors. They also receive two and a half times more financial aid than ten years ago.

Following these reviews, we undertook an in-depth self study comparing our curriculum to numerous peer institutions, including graduate architecture programs at Harvard, University of Cincinnati, Columbia, MIT, Yale, Cornell, Washington University in St. Louis, Virginia Tech, and UT Austin. We also gathered information on undergraduate architecture programs at Rice, Cooper Union, UT Austin, University of Arkansas, University of Cincinnati, Penn State, Cornell, USC, RISD, and Syracuse.

Color coding areas such as environmental technology (ET), drawing/representation, design, and history/theory, and marking their places in various curricula, allows a quick scan across both time and institution. In other words, one could quickly surmise that ET enters the graduate radar sooner at institution x, or is scattered throughout three years of study at institution y. In this review, drawing seems to be less emphasized at most institutions, for example.

Embedded in the Space Planning Committee and the Technology Task Force reports are detailed comparisons to our peer institutions. These reports will be available in the team room.

In June 2010 the University of Michigan received renewal of accreditation from the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools for another 10 years. The HLC report is available on line at: http://www.accreditation.umich.edu/portrait/HLCreport.php

A set of methods for assessing curricular achievement and development remains in place: an annual exhibition of student design work; end of semester reviews by coordinators in consultation with the Chair; course evaluations providing feedback to faculty as well as to Chair, Associate Dean and the Dean; and weekly meetings with ARC (Architecture Representative Council). Through formal and informal discussions, these moments when we look at ourselves through student work bear directly on decisions about coordination of studio topics, methods of carrying out a thesis project, or how both the pre-thesis seminar and the culminating thesis studio are staffed.

Student evaluations indicate a very positive reaction to the inclusion of a civil engineering faculty member on the instruction team for the introductory environmental sequences (Sustainable Systems I and II).

The annual juried student exhibit cuts a swath throughout the entire studio curriculum, enabling cross-referencing and a series of feedback sessions. Faculty meet around the work in teaching teams, the alumni board visits during the exhibition and judges the work publicly, and faculty tour current classes through the exhibit as a set of examples of what to do or not do, as the case may be.

Particular courses offer a fine grain assessment. Conceptual logics that structure design solutions in studio are tested as they are developed in construction courses. Construction II (Arch 427) requires comprehensive development of an earlier studio project. Such simple structural arrangement provokes reflection and interaction among different teaching constituencies and illuminates issues of pacing, for example, how quickly to jump into massing models at the urban scale, or when to address building interiors for consideration of the experiences they might foster.

#### Results from early experiments:

As mentioned in the overview in I.1.3, last year we tested a new model for teaching a thesis development seminar. A group of four faculty (one history/theory and one technology faculty member paired with two designers) was assigned to teach a group of 24 students, who balloted to participate in the group based on themes and interests presented by the faculty. This model proved too expensive, but a version of this idea, in which two pairs of designers with related interests are paired, remains. Other results from pairing seminar courses with studios were successful according to student course evaluation numbers, and faculty concluded that student work reached greater levels of development in these instances.

Another proposal endorsed by faculty was to increase the college-wide course offerings in order to expand our undergraduate program and make our areas of expertise more accessible to other units. We are accomplishing this with two new offerings: one entirely new course, called Architecture and the City (to be taught on central campus in the winter of 2011) and a second time slot for an already existing course called Understanding Architecture (now taught in both fall and winter semesters instead of only winter).

# 2. Conditions Met with Distinction

- 1.1.3A: Architectural Education and the Academic Community
- 1.1.3B: Architecture Education and Students
- 1.1.5: Self-Assessment Procedures
- 1.2.1A: Human Resources & Human Resource Development Faculty and Staff
- 1.2.2A: Administrative Structure Administrative Structure
- 1.2.5: Information Services
- 1.3.3: Faculty Credentials
- B12: Building Materials and Assemblies Integration

# 3. The Visiting Team

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