Virginia Tech
School of Architecture and Design

Visiting Team Report

Bachelor of Architecture (156 undergraduate credit hours)

Master of Architecture
Track I (preprofessional degree plus 54 graduate credit hours)
Track II (non-preprofessional degree plus 81 graduate credit hours)

The National Architectural Accrediting Board
14 March 2012

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 thanks the School of Architecture and Design and the College of Architecture and Urban Studies for its hospitality, cooperation and interaction provided by the college's administration, faculty, staff and students.

It is evident that students are engaged, creative and excited. Studio assignments appear to be challenging, requiring a great deal of critical thinking and research skill, basic requirement for future leaders. We observed a strong work ethic in the students.

The interdisciplinary nature of the Foundation (First Year) Program and the caliber of the incoming architecture students have raised the academic student capacity of all the other programs (industrial design, landscape architecture and interior design) in the School of Architecture + Design.

There was a level of collaboration throughout the learning environment. There appeared to be a collegial environment throughout the school as well as an enveloping atmosphere of collaboration derived from the openness of the studios, both at Blacksburg and Alexandria.

The "random order" of the studio workspace seating assignments for students at the WAAC is one of the unique strengths of its program. The studios at Blacksburg are open, and the 1st year foundation students are in the same studio space as the 5th year students.

The variety of off-campus study programs contributes to the students' knowledge base, and we noted that most students are off-campus for at least a part of their 4th year.

The school and students have been increasingly involved in community and international outreach projects, either as semester projects, competitions, or as student volunteers during school breaks.

The school can be proud of its robust research program. "lumenHAUS," first started in 2005 and continually refined, became the winning entry in the 2010 Solar Decathlon Europe Competition. "lumenHAUS" was a cross-campus collaborative effort of many departments.

The 2011 NCARB Grand Prize was won by Virginia Tech for its submission "Designing Practice." Through the Professional Practice course, students created their own practices within its framework.

2. Conditions Not Met

B. Arch
B.1 Pre-Design
B.6 Comprehensive Design (B. Arch)

M. Arch
A.9 Historical Traditions and Global Culture (M. Arch)
B.1 Pre-Design
B.2 Accessibility (M. Arch)
3. Causes of Concern

1.1.2 Learning Culture and Social Equity—Studio Culture Policy
The team noted that the Studio Culture Policy had only recently been revisited for revision and refinement. Prior to that, there had been little to no development of this policy for several years. Students at the Blacksburg campus had indicated that they had been recently involved to review and discuss this policy within the past two weeks. There was no indication on the part of the students that they would be involved in a collaborative update of the policy with faculty.

Students at the WAAC campus were aware that the policy existed, but had little knowledge of what it entailed. Neither students nor faculty at WAAC felt that the policy was necessarily required at the campus, due to the increased maturity level of its students, as well as weekly faculty/student meetings, held every Monday as an open discussion forum.

The team does note that the absence of the policy seems to have had no adverse effect on the studio culture. Refer to section 1.1.2 for additional information.

1.2.1. Faculty and Staff—Faculty Workload
Both students and faculty at the WAAC indicated that the workload for faculty at the facility was inordinately high, and that some professors appeared overworked. Full-time faculty indicated that a typical semester includes one lecture and a studio course, along with thesis committees. In addition, with only three, full-time Virginia Tech faculty, they each on every thesis committee, compared to the smaller number of committees that the Blacksburg faculty are required to serve on. WAAC faculty reported that this, at times, made it difficult to pursue their own research work. Refer to 1.2.1 for additional information.

A.9 Historical Traditions and Global Culture
The history and theory courses offered in Blacksburg and the WAAC vary considerably in content and quality with regards to the fulfillment of the SPC category of Historical Traditions and Global Culture. In particular, ARCH 3116, the second part of the mandatory two-semester survey, reinforces a Eurocentric view of history at the expense of non-Western architecture. Non-Western material was extensively found in ARCH 3115 as well as ARCH 4034.

4. Progress Since the Previous Site Visit (2006)

2004 Condition 8, Physical Resources: The accredited degree program must provide the physical resources appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each student in a studio class; lecture and seminar space to accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space. The facilities must also be in compliance with the Americans with Disabilities Act (ADA) and applicable building codes.

Previous Team Report (2006): The principal program facility at the WAAC, where Virginia Tech students may elect to complete their full course of graduate studies, is not fully accessible to persons with physical disabilities. This is also true of the program facility in Riva San Vitale, Switzerland, where students may elect to spend a semester of study. Cowgill Hall, primary home of the program at the Blacksburg campus, is scheduled to undergo significant renovations that in the next 2 years will remedy its existing deficiencies in meeting the Americans with Disabilities Act (ADA).

2012 Visiting Team Assessment: Since the 2006 VTR, upgrades to the WAAC facility have made the facility more handicapped accessible; including the reconfiguration of the rear parking area to accommodate an accessible path of entry, as well as a new lift from
the parking area up to the first floor. Additional upgrades were made to women’s restrooms. The team did note, however, that there is no access to the floors above for disabled persons. However, all necessary programmatic functions can be found on the first floor.

Plans were reviewed with the team for an addition to the Riva San Vitale program, which does include some ADA upgrades.

Cowgill Hall has since experienced significant upgrades, and there were no notable impediments to the disabled, with the exception of access to the library, which has all-glass doors.
II. Compliance with the Conditions for Accreditation

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

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

1.1.1 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 programs have fulfilled this requirement for narrative and evidence

2012 Team Assessment: Virginia Tech, as identified in the APR, is a polytechnic institution that promotes the application of theory into practice, fostering a learn-by-making environment. In addition, the APR provided a thorough description of the program, its history and mission, its context as a program in the College of Architecture and Urban Studies, and current and past recognition as a top national program.

1.1.2 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 programs have demonstrated that they provide a positive and respectful learning environment.

[X] The programs have demonstrated that they provide a culturally rich environment in which each person is equitably able to learn, teach, and work.

2012 Team Assessment: The learning environment and studio culture criterion is satisfied by the following:

The goal of the school is to make an environment where students learn to take responsibility for their own education with the guidance of the faculty and within a holistic framework. The faculty is primarily responsible for establishing the necessary environment for the student’s educational growth. The faculty opens the intellectual horizons that challenge the students to continually expand and deepen their critical understanding of the discipline of architecture. Both the students and the faculty have a responsibility to contribute to making the laboratory an environment that is respectful of individuals, shares in the intellectual life of the school, and is conducive to disciplined work. The laboratory is an environment in which the multiple facets of the student’s formal education are brought into discourse with one another.

Policies and Procedures Related to Harassment and Discrimination
Discrimination or harassment is addressed by Virginia Tech’s “Anti-Discrimination and Harassment Prevention Policy,” Policy 1025 (http://www.policies.vt.edu/1025.pdf). Formal and informal processes are available for resolution of complaints related to harassment or discrimination. All faculty and staff in the College of Architecture and Urban Studies are required to attend harassment and discrimination prevention workshops conducted by the university Office of Equity and Access.

Policies for Academic Integrity
The Undergraduate Honor Code and the Graduate Honor Code define the expected standards of conduct for students in academic affairs. The Undergraduate Honor System (http://www.honorsystem.vt.edu) and the Graduate Honor System (http://ghs.grads.vt.edu/) are the university bodies charged with disseminating information about the Honor Code to the university community and with enforcement of the Honor Code, including investigating reports of Honor Code violations, such as cheating or plagiarism.

Diversity
The university’s strategic plan for diversity explicitly calls upon the colleges to develop diversity plans of their own, consonant with those of the university. The College of Architecture and Urban Studies Diversity Strategic Plan can be found in its entirety in section I.2.1 Human Resources and Human Resource Development, Initiatives for Diversity.

The diversity of the school’s student body has been significantly enhanced since the last accreditation visit (see Part III: Statistical Reports). Although progress has been made in the past five years regarding the number of women faculty members, faculty and staff diversity continues to lag behind both the diversity of the student body and the diversity of faculty university-wide. Virginia Tech, the College of Architecture and Urban Studies, and the School of Architecture + Design are committed to enhancing the diversity of the faculty and staff. Searches to fill faculty and staff positions must be conducted in accordance with the procedures defined by the Virginia Tech office of Equity and Access, and the applicant pool for each position must be certified as sufficiently diverse in order for the candidate review process to proceed.

For more information on Virginia Tech Equity Initiatives, see http://www.hr.vt.edu/oea/equityinitiatives/equityinitiatives-main.html. The school has engaged in rigorous efforts to recruit well-qualified women and minority candidates for available positions, and these efforts will be expanded for future searches in an attempt to enhance faculty and staff diversity.

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. 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 programs are responsive to this perspective.

**2012 Team Assessment:** Through committee work, lectures, and research and service projects, the faculty members of the department are involved in the intellectual, governance, and social activities of the university. A high percentage of faculty members have been published, and they participate in scholarly conferences in several fields of study. The provost informed the team of several pedagogical initiatives that originated in the Architecture + Design Department that are now utilized in other parts of the institution, and he remarked of the reputation for innovation that students from the Bachelor of Architecture program have earned in other departments. The students regularly participate in the multiple options to study at national and international studios offered by the program. The team recognized a strong sense of commitment to the academic community, both in the undergraduate and graduate programs by the faculty, students, and staff of the department.

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 programs are responsive to this perspective.

**2012 Team Assessment:** Students value and benefit from the strong community and culture of the school and learning environment. There is a shared understanding for all the students to mentor and engage in discussions with both peers and individuals who are not in their year. The layout of the studio spaces, where all students have access to each other's desks, is noted as a strong reason for this open connection between the different years and diverse array of students.

At the Blacksburg campus, it is noted that the student organizations, such as AIAS and NOMA, currently are not very strong. At WAAC, the AIAS has a very strong chapter in conjunction with the local AIA.

C. **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 programs are responsive to this perspective.

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1 See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate.* Carnegie Foundation for the Advancement of Teaching. 1990.
2012 Team Assessment: B. Arch and M. Arch students are provided with a good overview of internship and licensing in the professional practice courses Arch 4044 and Arch 5044. The transmission of information regarding enrollment in the IDP, while occurring through emails, could be strengthened.

D. 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 programs are responsive to this perspective.

2012 Team Assessment: Externship opportunities are encouraged on the WAAC campus and in the Chicago Studio, exposing students to a practice environment early on and, in some cases, continuously in their education. In addition, there are a number of study abroad programs offered to all Virginia Tech students, giving them international exposure.

The school prides itself on collaborative opportunities offered through the industrial design, interior design, and landscape architecture programs, in addition to other collaborative relationships university wide, such as the lumenHAUS. Additionally, group projects are incorporated into the syllabi of a number of classes, both studio and lecture.

E. 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 programs are responsive to this perspective.

2012 Team Assessment: Both the B. Arch and M. Arch programs incorporate significant opportunity to contribute to the public good through the design-build LAB and optional travel programs over winter and spring breaks such as the Haiti design-build project, and a playground built collaboratively in the Dominican Republic by architecture and landscape architecture students. Participation in the Solar Decathlon and the research and development of lumenHAUS engages the students in cutting-edge sustainable design that continues to be developed and shared for the greater good.

In addition, the Building Cities ARCH 4034 class of the B. Arch program offers an overview of the pressing issues of urbanization around the world today.

The WAAC has initiated a number of prestigious public outreach programs, including managing competitions for the Martin Luther King Memorial and the Air Force Memorial.

I.1.4 Long-Range Planning: An accredited degree program must demonstrate that it has identified multi-year 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.
The programs' processes meet the standards as set by the NAAB.

2012 Team Assessment: Three primary goals were developed in accordance with the primary goals and objectives of the Virginia Tech Strategic Plan. These goals continue to guide the School of Architecture+Design:

Goal #1: Build upon the high national rankings of the School's constituent programs to enhance its national and international recognition for education in architecture and design. [Goal #1 is related to the overall goal of the Virginia Tech Strategic Plan, which states that "Virginia Tech will be ranked among the Top-30 universities by 2010."]

Goal #2: Establish the School as a premier international center for design research through innovative research and outreach projects. [Goal #2 is related to the Virginia Tech Strategic Plan, Goal 1, Section 1.2, which states that VT will "increase the quality, scope and focus of research and scholarship to match the characteristics of universities ranked 31-40."]

Goal #3: Increase sponsored project activities with an emphasis on applied research. [Goal #3 is related to the Virginia Tech Strategic Plan, Goal 2, Section 2.1, which states that VT will "increase research expenditures by 10-12% per year to reach Top-40 status..."

In addition, a number of new initiatives were put forward as part of the School proposal:
• Establish the Virginia Center for Design Research
• Create a new Master of Industrial Design degree program
• Develop Interdisciplinary Research/Outreach Studios for upper-year undergraduate students
• Establish a Faculty Research Development Institute
• Increase the capacity of the existing Master of Science in Architecture program to support research
• Increase opportunities for doctoral study in Architecture and Design
• Establish a Summer Institute for Architecture and Design Education
• Establish a master's program in Urban Design
• Create an undergraduate minor in Urban Design

During the 2011-12 academic year, the faculty of the School of Architecture + Design convened in multiple venues to develop the next plan for the development of the school. This occurred in concert with the development of Virginia Tech's new strategic plan, currently underway.

1.1.5 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.
  • Individual course evaluations.
  • Review and assessment of the focus and pedagogy of the program.
  • 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.

The programs' processes meet the standards as set by the NAAB.
2012 Team Assessment: The school’s self-study methods are both informal and formal. The informal element is a normal part of the program operation. There is an “open door” policy in the administrative offices, and daily interaction occurs between students, faculty, and administrators. They constantly question what they are doing, evaluate the results of their efforts, and regularly exchange ideas for improvements in the curriculum and their approach to teaching. Informal daily discussions for program development and curriculum improvement are formally developed and documented as required by college policies and university governance. Formal course proposals are written, reviewed, and edited with participation of faculty in each of their programs. These are reviewed and approved by the School of Architecture + Design Curriculum Committee before being referred to the College Curriculum Committee for approval and entrance into the university-level curriculum approval process. This method of informally developing ideas, followed by formal documentation, is efficient and effective. Throughout the process, faculty and administrators seek advice of students, alumni, and professionals, as well as faculty colleagues at other schools.

The College of Architecture and Urban Studies Policy #15 specifies procedures for review of academic programs within the college. For programs that undergo periodic accreditation reviews, a formal assessment is conducted by the dean’s office following the conclusion of the normal accreditation review process. The outcome of the accreditation review in the form of the Visiting Team Report is reviewed in the broader context of the college and university strategic plans, availability of resources, and projected future directions of the professions. The Office of Senior Vice President and Provost, Virginia Tech’s chief academic officer, constantly assesses the performance of academic programs university-wide. These evaluations are formalized in a “Metrics Report” containing data regarding resources, faculty workload, and student outcomes. The results of this study are used to allocate resources related to new initiatives and programs. Generally, the senior administration of the university has been very receptive to new initiatives proposed by the School of Architecture + Design.

All courses and studios within the School of Architecture + Design must be evaluated by students each semester, in accordance with college policy #5. The results of these “Student Perceptions of Instruction” are distributed to each faculty member and also become part of the faculty member’s annual review by his/her program chair. A summary of a faculty member’s teaching evaluations is a required part of the dossier submitted for promotion and tenure reviews. Each spring, the Virginia Tech Office of Academic Assessment conducts the “Senior Survey,” a comprehensive survey of all graduating undergraduate students. Results are compiled and distributed to each college and then to the various departments and schools. This data is an important measure of the satisfaction that students feel with regard to their education. The students generally rate their educational experience very highly. In part due to the results of this survey, which revealed that students were sometimes receiving conflicting advice concerning academic issues, the faculty and administration have made adjustments to the school’s advising scheme since the last accreditation visit to better serve students’ needs.
Part One (I): Section 2 – Resources

1.2.1 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.2
  - 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 programs

2012 Team Assessment: The School of Architecture + Design is home to more than 1,150 students, approximately 725 of whom are in the architecture programs. Over 80 faculty members are based in the school's programs, approximately 30 of whom are in visiting or adjunct positions. There are 50 full-time and 12 part-time faculty based in the architecture programs, 23 of whom are in visiting or adjunct positions. Twenty-eight architecture faculty members are tenured and 12 are full professors. Twenty-three of the above individuals are registered architects.

The student-to-faculty ratio as of spring 2012 is as follows:
- Design studios overall: 16 to 1 (this is down from 20 to 1 in 2006)
- Lecture courses: 68 to 1
- Seminars: 15 to 1

The school has appropriate faculty and staff resources to effectively complete its teaching, research, and service mission. Although economic realities have affected the expansion of the faculty, new positions, some promised before the 2008 economic downturn, have come online since the last NAAB review, and interviews for open faculty positions are scheduled for this spring. The faculty and leadership of the college and university are appropriately stable, ensuring intelligent operations in the School of Architecture + Design and the undergraduate and graduate architecture degree programs. The workloads of faculty members tend to be the traditional “2+2” model prevalent in most architecture programs nationally.

In addition to academic resources, the school has a Design Office staff of 5 members, including a full-time student advisor to meet the request of the last accreditation visit in 2006. The students are further supported by a design shop staff, the international program coordinator, and an IT individual.

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2 A list of the policies and other documents to be made available in the team room during an accreditation visit is in Appendix 3.
An associate professor has been appointed as the IDP education coordinator for the B. Arch. and M. Arch programs. The coordinator communicates regularly with the students via email and in-person meetings.

Faculty are encouraged and financially supported by the dean and director to pursue professional development opportunities, such as sabbaticals, conferences, and individual grants.

The APR thoroughly addresses the EEO/AA policies the university currently has in place. Refer to policy #16 in the College Policy on Diversity, Equity, and Inclusion from the CAUS Policy Handbook. policy #1, "Reappointment, Promotion, and Tenure Guidelines."

- **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 programs

2012 Team Assessment: The procedures of student admissions policies and procedures are well documented for students. Students are informed about the documentation of applications, admissions, and other procedures on a number of occasions before enrollment in their 1st year as well as on a number of occasions in the years following.

1.2.2 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 the responsibilities of the administrative staff.

[X] Administrative Structure is adequate for the programs

2012 Team Assessment: The College of Architecture and Urban Studies consists of four academic units: the School of Architecture+Design, the School of Visual Arts, the School of Public and International Affairs, and the Department of Building Construction. Each school has a director, and Building Construction has a department head, all of which report to the dean. The Myers-Lawson School of Construction is jointly housed in the College of Architecture and Urban Studies and the College of Engineering. The School of Construction is administered by a director who has formal reporting ties to the deans of both colleges. The Associate Dean for Academic Affairs, the Associate Dean for Research, and the Associate Dean for Graduate Studies and Outreach support the dean in facilitating the various aspects of the teaching, research, and outreach missions of the university.

The dean reports directly to the senior vice president and provost, the university's chief academic officer, who reports to the president of the university. The university is governed by a Board of Visitors, composed of 14 members, 13 of whom are appointed by the governor (the 14th member is the president of the Board of Agriculture and Consumer Services, who serves ex officio). The members of the Board of Visitors serve four-year terms with possible reappointment for a successive four years.
- **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 programs

**2012 Team Assessment:** Faculty may participate in school governance through service on the School Curriculum Committee (one faculty member elected from each program), the School Executive Committee (program chairs plus one faculty member elected from each program and one faculty at-large), and the School Peer Review Committee (one faculty member elected from each program), which handles reviews for reappointment and promotion and tenure.

Faculty may participate in college governance through service on the College Curriculum Committee (elected faculty representatives from each program) and the College Promotion and Tenure Committee (a combination of elected and appointed members). Faculty, staff, and students may participate in college governance through service on the College Honors Committee (elected faculty, staff, and student representatives from each program in the College), which has responsibility for selecting recipients of all college-level awards.

Faculty may participate in university governance through service on the University Council (elected college representative), the Commission on Undergraduate Studies and Policies (elected college representative), the Commission on Graduate Studies and Policies (elected college representative), the Committee on Undergraduate Curriculum (elected college representative), the Graduate Curriculum Committee (elected college representative), the Faculty Senate (elected college representatives), the Academic Support Committee (elected college representative), the Athletics Committee (elected college representative), the University Building Committee (faculty representatives nominated by the Faculty Senate), the Commencement Committee (elected college representative), the Faculty Honorifics Committee (faculty representatives nominated by the Faculty Senate), the Intellectual Property Committee (faculty representatives nominated by the vice president for Research Programs and the presidents of the Faculty and Staff Senates and the chair of the Commission on Administrative and Professional Faculty Affairs), Committee for Curriculum for Liberal Education (elected college representative), Commission on Faculty Affairs (faculty representatives nominated by the Faculty Senate), Commission on Outreach and International Affairs (elected college representative), Commission on Research (elected college representative), and the University Advisory Council on Strategic Budgeting and Planning (elected college representative).

Faculty and staff may participate in university governance through service on the Employee Benefits Committee (faculty representatives nominated by the Faculty Senate, staff representatives nominated by the Staff Senate), the Energy and Sustainability Committee (faculty representatives nominated by the Faculty Senate, staff representatives nominated by the Staff Senate), the Library Committee (elected college faculty representative, staff representatives nominated by the Staff Senate), Transportation and Parking Committee (faculty representatives nominated by the Faculty Senate, staff representatives nominated by the Staff Senate), and the Commission on Equal Opportunity and Diversity (faculty representatives nominated by the Faculty Senate, staff representatives nominated by the Staff Senate). Faculty and students may participate in university governance through service on the Honor System Review Board (faculty representatives nominated by the Faculty Senate). Staff may participate in university governance through service on the Commission on Staff Policies and Affairs (staff representatives elected by the Staff Senate).

**1.2.3 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 programs

2012 Team Assessment: This requirement is met and validated via visual observations and review of available student studio spaces and faculty work and office facilities. Non-studio spaces also reviewed included traditional construction shops, digital fabrication facilities, galleries, and the architecture library on the Blacksburg campus.

The team did note that the program felt cramped at WAAC, and accessibility to the upper floors is an issue. The team also notes that the WAAC building lacks fire sprinklers, as it has only one area on the first floor where fire sprinklers are present. Additionally, video conferencing equipment appeared to be causing some hardship for both students and faculty, although the equipment was functional. This equipment is used to facilitate joint classes between the two campuses.

1.2.4 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 programs

2012 Team Assessment: The university has weathered the current recession in relatively good condition. While faculty salaries have been frozen, and state support is constantly being diminished, Virginia Tech is working to increase its endowments and has hired additional development staff.

Although the 2008 recession required a total base-budget reduction of $600,000 from 2007-2012 in the School of Architecture + Design, financial adjustments were made, along with resources from other sources, resulting in total financial resources available to the school amounting to $10,095,972.00. These funds are adequate for the operation of the school. A breakdown of comparative monies available per student in the School of Architecture compared to other programs within the college reveals that $8,734/student is spent by the School of Architecture + Design, while the School of Visual Arts spends $10,471/student and the School of Public and International Affairs spends $10,364/student.

The faculty and administration have identified some specific financial needs. The three needs that are most fundamental to the continued successful operation of the architecture programs are (1) faculty salary funds to compensate for "salary compression" of some faculty members; (2) additional graduate assistantships, which would directly influence the quality of graduate students enrolling in the Master of Architecture degree program; and (3) certain information technology upgrades and staff that would reduce the operational stresses in Blacksburg and increase the interconnectivity between the main campus and the Alexandria Center.

1.2.5 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 programs

2012 Team Assessment: The Art and Architecture Library in Blacksburg contains all university library materials in art, architecture, and design. It maintains strong collections in architecture, landscape architecture, building technology and construction, industrial design, and photography, with an emphasis
on modern and contemporary architecture and design. Significant evidence was found of journal subscriptions, videos and DVDs, digital images, and construction documents. In addition, the library loans iPads to students for use in the field.

The WAAC library is an important resource for students and faculty. The program is aware of the need to expand the collection at this location.
Part I: Section 3 – Reports

1.3.1 Statistical Reports. 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

2012 Team Assessment: The APR provided all of the statistical data required by this criterion.

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

3 In all cases, these statistics should be reported in the same format as they are reported in the Annual Report Submission system.
[X] Annual Reports and NAAB Responses were provided and provide the appropriate information

2012 Team Assessment: NAAB responses were provided by the school.

1.3.3 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\(^4\) 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.

2012 Team Assessment: Instructional faculty are adequately prepared and educated at universities throughout the world and have at least a master's degree. Faculty members teaching in the Virginia Tech Architecture program have diverse backgrounds and have been educated at universities throughout the world. For studio faculty, a full teaching load is one studio per semester and one lecture or seminar course per academic year; for non-studio faculty, a full teaching load is two lecture or seminar courses per semester. The faculty is involved in a wide range of research, scholarship, and creative work, and each faculty member's knowledge, expertise, and experience are principal factors in determining teaching assignments to promote student achievement

Evidence is also provided through a faculty exhibit, which reflects a suitable range of knowledge and experience of faculty development and achievement since the most recent NAAB visit.

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\(^4\) 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 met the requirements of Appendix 3

2012 Team Assessment: A binder containing the following required policies was provided in the team room:

1. School of Architecture + Design Studio Culture Policy
2. College of Architecture and Urban Studies Strategic Plan, including the Diversity Strategic Plan
3. School of Architecture + Design Proposal
4. Link to the Virginia Tech Faculty Handbook
6. Position descriptions for all architecture administrative faculty and staff
7. Admissions requirements
8. Virginia Tech Honor Code
9. Collection Development Policy for the Art & Architecture Library
10. Student faculty ratios for all components of the curriculum
11. Studio space tabulation, including square footage per student
12. Faculty office space tabulation, including square footage per faculty member
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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch–The quality and quantity of student writing varies greatly in the realm of Thesis Documentation ARCH 4524. The writing produced by students ranges from descriptive (i.e., prose) to “poetic” in nature.

M. Arch–The quality and quantity of student writing varies greatly in the realm of Thesis Documentation ARCH 5994. The writing produced by students ranges from descriptive (i.e., prose) to “poetic” in nature.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: The ability for design thinking skills is evidenced primarily in the exploration of design ideas presented in drawing and written form in the projects of courses Arch 4515-16 Arch. V, Arch 5994 Research and Thesis and secondarily in courses Arch 4015-16, and Arch 5755-56 Advanced Design Lab
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.

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: The ability for visual communication skills is evidenced primarily in the diversity of modeling and drawing techniques, both traditional and digital, of courses Arch 4515-16 Arch. V, Arch 5994 Research and Thesis and secondarily in Arch 4015-16 and Arch 5755-56.

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.

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: B. Arch: Evidence was found in ARCH 4015-16.

M. Arch: Drawings in ARCH 5565 exhibited a basic ability to put together technical drawings and outline specifications.

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

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: B. Arch: Evidence of student ability in investigative skills was found predominately in the thesis documentation books produced in Architecture V (ARCH 4515-4516), but much less in the display boards from that course.

M. Arch: Evidence of student ability in investigative skills was found in the documentation books produced in Research & Thesis (ARCH 5994).
A. 6. Fundamental Design Skills: Ability to effectively use basic architectural and environmental principles in design.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—Evidence of the use of basic architectural principles was demonstrated through a range of scales, including small buildings in the ARCH 2015-16 courses.

M. Arch—Ample evidence of the use of architectural principles was found in the ARCH 5515-16 courses.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—Precedent studies were found in the course work of ARCH 3045-46.

M. Arch—While there is almost no evidence that precedent studies are being incorporated in student work produced for ARCH 5755-56, the team did note that, in courses 5755G and 5565-66, there are significant examples of precedents and case studies in the context of environmental systems, building materials and construction.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—Ample evidence in both two and three dimensions of ordering systems at many scales, both natural and man-made in the ARCH 1015-16 courses.

M. Arch—Ample evidence in both two and three dimensions of ordering systems at many scales, both natural and man-made in the ARCH 4715-16 courses.

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.

B. Arch  
[X] Met  

M. Arch  
[X] Not Met  

2012 Team Assessment: B. Arch–Evidence of student understanding was found in the History of Architecture (ARCH 3115), as well as in the ARCH 4034 Building Cities course work. See comments for causes of concern.

M. Arch–Evidence of student understanding in historical traditions and global culture was not found in Qualifying Design Seminar (ARCH 4705-4706).

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.

B. Arch  
[X] Met  

M. Arch  
[X] Met  

2012 Team Assessment: The understanding of this criterion is primarily evidenced in the course binders in the analytical drawings, documentation project, and reading response papers of Arch 3115-16 History of Architecture and the Arch 4705-06 Qualifying Design Seminar.


B. Arch  
[X] Met  

M. Arch  
[X] Met  

2012 Team Assessment: The understanding of the criterion is primarily evidenced in the project programmatic statements, portfolios, written proposals and technical drawings of Arch 4515-16 Architecture V and Arch 5565–66 Building Materials and Construction.
Realm A: General Team Commentary: The quality (i.e., ability to write) and the nature of writing (descriptive vs. analytic) varies significantly from thesis to thesis, generating concern regarding the level of faculty commitment to this form of “craft” as an integral component of architectural education.

Overall, there is little evidence that students are encouraged to write in-depth research papers that allow them to explore ideas and gain analytical writing skills in ways that are impossible in shorter reading reports.

While Arch 3116 offers numerous examples of the Western traditions in architecture, it does not show enough non-Western architecture. Courses offered at WAAC continue to be primarily focused on Western traditions.

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.

B. Arch
[X] Not Met

M. Arch
[X] Not Met

2012 Team Assessment: B. Arch-3015-16. Only a few projects exhibited comprehensive programs; NO code or zoning reviews were observed.

M. Arch-In ARCH 5755, only a few projects exhibited comprehensive programs; NO code or zoning reviews were observed.

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.

B. Arch
[X] Met

M. Arch
[X] Not Met
2012 Team Assessment: B. Arch—Evidence of student ability to design with accessible facilities was found in Architecture III (ARCH 3015/3016). Refer to Realm B Summary.

M. Arch—There was not sufficient evidence of student ability to design with accessible facilities. Evidence of ramps for accessibility was found in some projects. In most projects, ramps or other indicators of providing accessibility for handicapped were difficult to find.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: The ability for this criterion is evidenced primarily in exams, quizzes, energy modeling projects, and calculations of thermal transmittance of student studio projects in courses Arch 4055-56 Environmental Building Systems and Arch 5755G Building Environmental Systems.

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

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—The evidence of site design is sufficiently presented in drawings of ARCH 4515-16.

M. Arch—The evidence of site design is sufficiently presented in drawings of ARCH 5994.

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

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—Evidence of student ability in life safety was consistently found in Architecture III (ARCH 3015-3016) where understanding of egress was well displayed in axonometric drawings showing horizontal and vertical movement outside of the building.

M. Arch—There was evidence in projects of egress routes, specifically in regards to exit stairs in ARCH 5755-56.
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 SPCs:

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

B. Arch  
[X] Not Met

M. Arch  
[X] Met

2012 Team Assessment: B. Arch—Arch 3015-16- Only a limited number of projects were able to integrate the necessary SPCs thoroughly in one project, as was the case in the 2006 visit. The team had great difficulty finding all the required SPCs in most projects across the board, and felt the work was not consistently in conformance with the requirements of this SPC.

M. Arch—Evidence was found in ARCH 5994.

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.

B. Arch  
[X] Met

M. Arch  
[X] Met

2012 Team Assessment: B. Arch—Financial considerations are presented in Arch 4044.  
M. Arch—Financial considerations are presented in Arch 5044.
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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch–The understanding was met as evidenced in the lectures and student work of the Arch 4055 class.

M. Arch–The understanding was met as evidenced in the lectures and student work of the Arch 5755G class.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch–Lectures and exams, both high and low pass, showed a clear understanding of this SPC from the ESM 3074, ARCH 4075, and ARCH 4076 courses.

M. Arch–Lectures and exams, both high and low pass, showed a clear understanding of this SPC from the ARCH 5775-76G courses.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch & M. Arch–Evidence in lecture material and student examination papers demonstrates that there is an understanding of building envelope systems. This evidence was located in the ARCH 3045-46 course work at the B. Arch level and ARCH 5665-66 course work at the M. Arch level.

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
B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—A thorough understanding of mechanical, electrical, and plumbing systems was found in the course descriptions and student work in Environmental Building Systems (ARCH 4055-56). Refer to Realm B Summary. Though the lectures in MEP were quite strong, lessons pertaining to vertical transportation and fire protection were not found.

M. Arch—A thorough understanding of mechanical, electrical, and plumbing systems was found in the course descriptions and lectures in Building Environmental Systems (ARCH 5755G).

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch—A basic understanding of building materials and assemblies is evident in the course work, student annotated exams and exercises in ARCH 3045-46.

M. Arch—A thorough understanding of building materials and assemblies is evident in ARCH 5565-66 in both student work and course binders. In addition, cost estimates, outline specs, readings and precedents are also included in the course material. Realm B. General Team Commentary:

Realm B. General Team Commentary: The team found that the curriculum addresses most SPCs within Realm B, except for B1 Pre-Design in both the B. Arch and the M. Arch, B2 Accessibility in the M. Arch, and B6 Comprehensive Design in the B. Arch. The team was very pleased by the thoroughness of coursework and lectures provided for SPC B12, from the course ARCH 5565-66 Building Materials & Construction.

We note that in the 2006 VTR, the team stated that there were "few examples of singular projects" that met the ability of the Comprehensive Design SPC for the B. Arch program. We continue to find that there is a limited presence of comprehensively designed projects, and that the ability to integrate all elements of a comprehensively designed building remains lacking in most projects in the B. Arch Comprehensive Design Course.
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.**

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: The ability for the criterion was evidenced primarily in the Bachelor’s degree program in course Arch 3054 Building Analysis in groups of 4 – 6 students engaging in the analysis of design documents, interviews and inspections of actual construction. The ability for this criterion was met in the Masters program in course Arch 5565-66, Building Materials and Construction.

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

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: The understanding for the criterion was evidenced primarily by written lectures and visual images in Arch 4034, Building Cities and Arch 5755G Building Environmental Systems.

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.**

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: B. Arch–Arch 4044 provides the students with this understanding. (See Realm C: General Team Commentary)

M. Arch–Arch 5044G provides the students with this understanding. (See Realm C: General Team Commentary)
C. 4. Project Management: Understanding of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: B. Arch–Arch 4044 provides the students with this understanding. (See Realm C: General Team Commentary)

M. Arch–Arch 5044G provides the students with this understanding.

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.

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: B. Arch–Arch 4044 provides the students with this understanding. (See Realm C: General Team Commentary)

M. Arch–Arch 5044G provides the students with this understanding.

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.

B. Arch [X] Met

M. Arch [X] Met

2012 Team Assessment: This understanding of the criterion was met in courses Arch 4044 Professional Practice and Arch 5044G.

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.

B. Arch [X] Met

M. Arch [X] Met
2012 Team Assessment: B. Arch.: Arch 4044 provides students with this understanding. (See Realm C: General Team Commentary)

M. Arch: ARCH 5044G provides students with a basic understanding of this material.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: B. Arch. Arch 4044 provides students with this understanding. (See Realm C: General Team Commentary).

M. Arch–Arch 5044G provides students with this understanding. (See Realm C: General Team Commentary)

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.

B. Arch
[X] Met

M. Arch
[X] Met

2012 Team Assessment: The understanding of the criterion is primarily evidenced by exercises, case studies, and assignments in course Arch 4034-16 Building Cities and Arch 5044G Professional Practice.

Realm C. General Team Commentary: ARCH 4044- While most of the items in this Realm are met through the professional practice course, the number of instructors teaching Arch 4044 created a wide divergence in how the various SPCs in this section were covered. Of concern to the team is the wide disparity of range and depth of course content being presented.
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

2012 Team Assessment: Virginia Tech is accredited by the Southern Association of Colleges and Schools (SACS). The next review is 2019.

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

2012 Team Assessment: The School of Architecture + Design offers the Bachelor of Architecture: 5-year Undergraduate Architecture Program (156 credit hours), the Master of Architecture: 3½-year Comprehensive Professional Studies Program (non-preprofessional degree + 81 credit hours) and the 2-year Advanced Professional Studies Program (preprofessional degree + 54 credit hours).

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

2012 Team Assessment: This information was provided in the APR. Because the Architecture and Design School curriculum includes other disciplines, three of the committee members are licensed architects, out of a total number of eight on the committee.
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

2012 Team Assessment: The team was provided evidence, both in the APR and during the visit, that the evaluation process was extensive, as well as seriously and objectively undertaken. This was of particular interest to the team in that some candidates for admission to the Master’s program coming from 4-year preprofessional degree programs may have the comprehensive design studio waived through this process.
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

2012 Team Assessment: The team found a link to the NAAB Accredited Degree information on the program’s 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

2012 Team Assessment: The team found a link to the NAAB Conditions and Procedures on the program’s 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

2012 Team Assessment: The team found a link to Career Development Information on the program’s 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

2012 Team Assessment: The team found a link to the APRs and VTRs on the program's 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

2012 Team Assessment: The team found a link to the ARE Pass Rates on the program's website.
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 (I.1.1)

Reference Virginia Tech, APR, pp 1-4.

B. History and Mission of the Program (I.1.1)


C. Long-Range Planning (I.1.4)


D. Self-Assessment (I.1.5)

Reference Virginia Tech, APR, pp.13-17.
2. **Conditions Met with Distinction**
   (list number and title; include comments where appropriate)

   B. Arch
   A.3 Visual Communications
   A.8 Ordering System Skills

   M. Arch
   A.3 Visual Communications
   B.12 Building Materials & Assemblies
3. The Visiting Team

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IV. Report Signatures

Respectfully Submitted,

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