PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

The program must document its current performance relative to student learning and the curricular framework for learning and student achievement.

- Programs must demonstrate that graduates are learning at the level of achievement defined for each of the Student Performance Criteria (SPC) that will be listed in this Part. Compliance will be evaluated through the review of student work.
- Programs must also demonstrate their compliance with requirements that address the curricular framework for NAAB accredited degrees.
- Programs must document their processes for evaluating students admitted to the professional degree program.

This Part has four sections that address the following:

- <u>Student Performance</u>. This section includes the Student Performance Criteria (SPC).
- <u>Curricular Framework</u>. This section will address the program and institution relative
 to regional accreditation, degree nomenclature, credit hour requirements, general
 education and access to elective study as well as accurate public information
 concerning the accredited and non-accredited architecture programs. In this
 section, programs are asked to describe the process by which curriculum is
 evaluated and how changes or modifications are proposed and implemented.
- Evaluation of Preparatory/Pre-professional Education. The NAAB recognizes that students entering an accredited program from a pre-professional program and those entering an accredited program from a non-pre-professional degree program have different needs, aptitudes and knowledge bases. In this section, programs will be required to demonstrate the process by which incoming students are evaluated and to document that the SPC expected to have been met in educational experiences in non-accredited programs have indeed been met.
- <u>Public Information</u>. The NAAB expects accredited degree programs to provide information to the public regarding accreditation activities and the relationship between the program and the NAAB, as well as career information for students and parents.

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

The accredited degree program must demonstrate that each graduate possesses the knowledge and skills defined by the criteria set out below. The knowledge and skills are the minimum for meeting the demands of an internship leading to registration for practice.

The school must provide evidence that its graduates have satisfied each criterion through required coursework. If credits are granted for courses taken at other institutions or online, evidence must be provided that the courses are comparable to those offered in the accredited degree program.

The criteria encompass two levels of accomplishment¹⁰:

- Understanding—The capacity to classify, compare, summarize, explain and/or interpret information.
- Ability—Proficiency in using specific information to accomplish a task, correctly
 selecting the appropriate information, and accurately applying it to the solution of a
 specific problem, while also distinguishing the effects of its implementation.

The NAAB establishes performance criteria to help accredited degree programs prepare students for the profession while encouraging educational practices suited to the individual degree program. In addition to assessing whether student performance meets the professional criteria, the visiting team will assess performance in relation to the school's stated curricular goals and content. While the NAAB stipulates the student performance criteria that must be met, it specifies neither the educational format nor the form of student work that may serve as evidence of having met these criteria. Programs are encouraged to develop unique learning and teaching strategies, methods, and materials to satisfy these criteria. The NAAB encourages innovative methods for satisfying the criteria, provided the school has a formal evaluation process for assessing student achievement of these criteria and documenting the results.

For the purpose of accreditation, graduating students must demonstrate understanding or ability as defined below in the Student Performance Criteria (SPC):

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.

¹⁰ See also *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives.* L.W. Anderson & D.R. Krathwold, Eds. (New York; Longman 2001).

- 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.
- A. 2. Design Thinking Skills: *Ability to* raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.
- A. 3. 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.
- 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.
- A.5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.
- A. 6. Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.
- 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.
- 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.
- 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.
- 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.
- A.11. Applied Research: *Understanding* the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.

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 the 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. 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. 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. 4. Site Design: *Ability* to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.
- B. 5. Life Safety: *Ability* to apply the basic principles of life-safety systems with an emphasis on egress.
- 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

A.4. Technical
Documentation

A.5. Investigative Skills

B.2. Accessibility

B.3. Sustainability

B.4. Site Design

A.5. Investigative Skills
A.8. Ordering Systems
B.4. Site Design
B.5. Life Safety

A.9. Historical Traditions and Global Culture B.9. Structural Systems

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

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.
- C. 2. Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.
- 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.
- C. 4. Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods.
- 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.
- 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.
- 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.
- C. 8. Ethics and Professional Judgment: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.
- 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

The APR must include:

- A brief, narrative or graphic overview of the curricular goals and content for each accredited degree program offered or each track for meeting the requirements of the professional degree program.
- A matrix for each accredited degree program offered or each track for meeting the requirements of the professional degree program, that identifies each required course with the SPC it fulfills.
 - Where appropriate, the top section of the matrix should indicate those SPCs expected to have been met in preparatory or pre-professional education prior to admission to the NAAB-accredited program (see also Part II, Section 3).
 - The bottom section of the matrix should include only criteria that are demonstrated in the accredited degree program or track.

In all cases, the program must highlight only the 1-2 cells on the matrix that point to the greatest evidence of student achievement. (For a sample matrix, see Appendix 4) [NOTE: Elective courses are not to be included on the matrix.]