Educating the Future
Roadmap from Community College to Architect

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NAAB

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Director, Experience + Education
NCARB
State of the Profession of Architecture
State of the Profession of Architecture

113,554 Architects in the United States
National Council of Architectural Registration Boards
NCARB Facilitates Initial Licensure

**Education**
NCARB Education Standard

**Experience**
Architectural Experience Program® (AXP™)

**Examination**
Architect Registration Examination® (ARE®)
NCARB Services in Support of Licensure

**Education**
NCARB Education Standard

**Experience**
Architectural Experience Program® (AXP™)

**Examination**
Architect Registration Examination® (ARE®)
Validation of Education

All 54 jurisdictions recognize a degree from a NAAB-accredited program as the preferred method for fulfilling the education requirement.
Accredited Degree Requirements
<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutions with accredited programs:</td>
<td>126</td>
</tr>
<tr>
<td>Accredited programs:</td>
<td>157</td>
</tr>
<tr>
<td>B. Arch. programs:</td>
<td>47</td>
</tr>
<tr>
<td>M. Arch. programs:</td>
<td>110</td>
</tr>
<tr>
<td>Programs pursuing accreditation:</td>
<td>12</td>
</tr>
<tr>
<td>Preprofessional programs:</td>
<td>108</td>
</tr>
<tr>
<td>Accredited institutions with articulation agreements with community colleges:</td>
<td>45</td>
</tr>
</tbody>
</table>
Enrollment (AY 2016-2017)

Accredited programs:
- Total enrollment: 24,109
- First-time/first-year enrollment: 7,500
- Degrees awarded: 6,175

Preprofessional programs:
- Total Enrollment: 15,841
- First-time/first-year enrollment: 4,553
- Degrees awarded: 3,035
Accredited Programs 2009-2016

- Degrees Awarded
- First Time Enrollment
- Total Enrollment

-12%
-14%
-.05%
Preprofessional Programs 2010-2016

- Degree awarded
- 1st Time Enrollment
- Total Enrollment

-19.2%
-23%
-12.6%
NAAB Enrollment
Demographic Categories

- International
- Asian
- Black/African-American
- Hispanic

Graph showing the percentage of students in each demographic category from 2008 to 2017.
Percentages by Program – B.Arch. 2016

Percentage of International Students in each Accredited B. Arch Program in 2016
Percentages by Program – M.Arch. 2016

22% Average

Percentage of International Students in each Accredited M. Arch Program in 2016
The 2014 NAAB *Conditions for Accreditation* outline the requirements that an accredited degree program must meet in order to demonstrate the achievement of minimum standards.
2014 *Conditions*

**Institutional Support & Commitment to Continuous Improvement**
- Identity & Assessment
- Resources

**Educational Outcomes and Curriculum**
- *Student Performance Criteria*
- Curricular Framework
- *Evaluation of Preparatory Education*
- Public Information

**Reports**
- Annual Statistical Reports
- Interim Progress Reports
Student Performance Criteria

Four Realms

• Realm A: Critical Thinking and Representation
• Realm B: Building Practices, Technical Skills, and Knowledge
• Realm C: Integrated Architectural Solutions
• Realm D: Professional Practice
### Realm A
Critical Thinking and Representation

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Level of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Professional Communications Skills</td>
<td>Ability</td>
</tr>
<tr>
<td>A.2</td>
<td>Design Thinking Skills</td>
<td>Ability</td>
</tr>
<tr>
<td>A.3</td>
<td>Investigation Skills</td>
<td>Ability</td>
</tr>
<tr>
<td>A.4</td>
<td>Architectural Design Skills</td>
<td>Ability</td>
</tr>
<tr>
<td>A.5</td>
<td>Ordering Systems</td>
<td>Ability</td>
</tr>
<tr>
<td>A.6</td>
<td>Use of Precedents</td>
<td>Ability</td>
</tr>
<tr>
<td>A.7</td>
<td>History and Global Culture</td>
<td>Understanding</td>
</tr>
<tr>
<td>A.8</td>
<td>Diversity and Social Equity</td>
<td>Understanding</td>
</tr>
</tbody>
</table>
# Realm B
## Building Practices, Technical Skills, and Knowledge

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Level of Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1</td>
<td>Pre-Design</td>
<td>Ability</td>
</tr>
<tr>
<td>B.2</td>
<td>Site Design</td>
<td>Ability</td>
</tr>
<tr>
<td>B.3</td>
<td>Codes and Regulations</td>
<td>Ability</td>
</tr>
<tr>
<td>B.4</td>
<td>Technical Documentation</td>
<td>Ability</td>
</tr>
<tr>
<td>B.5</td>
<td>Structural Systems</td>
<td>Ability</td>
</tr>
<tr>
<td>B.6</td>
<td>Environmental Systems</td>
<td>Ability</td>
</tr>
<tr>
<td>B.7</td>
<td>Building Envelope Systems &amp; Assemblies</td>
<td>Understanding</td>
</tr>
<tr>
<td>B.8</td>
<td>Building Materials &amp; Assemblies</td>
<td>Understanding</td>
</tr>
<tr>
<td>B.9</td>
<td>Building Service Systems</td>
<td>Understanding</td>
</tr>
<tr>
<td>B.10</td>
<td>Financial Considerations</td>
<td>Understanding</td>
</tr>
<tr>
<td>Number</td>
<td>Title</td>
<td>Level of Achievement</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>C.1</td>
<td>Research</td>
<td>Understanding</td>
</tr>
<tr>
<td>C.2</td>
<td>Integrated Evaluations and Decision-Making Design Process</td>
<td>Ability</td>
</tr>
<tr>
<td>C.3</td>
<td>Integrative Design</td>
<td>Ability</td>
</tr>
<tr>
<td>Number</td>
<td>Title</td>
<td>Level of Achievement</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>D.1</td>
<td>Stakeholder Roles in Architecture</td>
<td>Understanding</td>
</tr>
<tr>
<td>D.2</td>
<td>Project Management</td>
<td>Understanding</td>
</tr>
<tr>
<td>D.3</td>
<td>Business Practices</td>
<td>Understanding</td>
</tr>
<tr>
<td>D.4</td>
<td>Legal Responsibilities</td>
<td>Understanding</td>
</tr>
<tr>
<td>D.5</td>
<td>Professional Conduct</td>
<td>Understanding</td>
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</tbody>
</table>
Evaluation of Preparatory Education

• The program must demonstrate that it has a thorough and equitable process for evaluating the preparatory or preprofessional education of individuals admitted to the NAAB-accredited degree program.

• Programs must document their processes for evaluating a student’s prior academic course work related to satisfying NAAB student performance criteria when a student is admitted to the professional degree program.
Evaluation of Preparatory Education

• In the event a program relies on the preparatory educational experience to ensure that admitted 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.

• The program must demonstrate that the evaluation of baccalaureate-degree or associate-degree content is clearly articulated in the admissions process, and that the evaluation process and its implications for the length of a professional degree program can be understood by a candidate before accepting the offer of admission. See also Condition II.4.6.
Associate Degree to NAAB Degree

Student Acquires their Associate Degree

Student Enrolls in 4-year preprofessional degree

Student Enrolls in 5-year B.Arch. Program

Student Enrolls in M.Arch. degree
Associate Degree to NAAB Degree

Student Acquires their Associate Degree

Student Enrolls in 4-year preprofessional degree

Student Enrolls in 5-year B.Arch. Program

B.Arch. Program evaluates students for NAAB SPC

M.Arch. Program evaluates students for NAAB SPC

Student Enrolls in M.Arch. degree
Associate Degree to NAAB Degree

Five Thoughts…

1. What SPC are you teaching to?

2. What SPC do your graduates need to transfer?

3. How can you assist B.Arch. programs in their review of your curriculum for SPC?

4. Pedagogical Identity: Are you developing an Associate Degree or a transfer degree? Ideally both!

5. Remember: the NAAB only mandates what is learned, now how or what is taught
Associate Degree to NAAB Degree
## Associate Degree to NAAB Degree

<table>
<thead>
<tr>
<th><strong>REALM A: CRITICAL THINKING AND REPRESENTATION</strong></th>
<th><strong>REALM B: BUILDING PRACTICES, TECHNICAL SKILLS, AND KNOWLEDGE</strong></th>
<th><strong>REALM C: INTEGRATED ARCHITECTURAL SOLUTIONS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1 Professional Communication Skills</td>
<td>B.1 Pre-Design</td>
<td>C.1 Research</td>
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<td>A.2 Design Thinking Skills</td>
<td>B.2 Site Design</td>
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<td>A.3 Investigative Skills</td>
<td>B.3 Codes and Regulations</td>
<td>C.3 Integrative Design</td>
</tr>
<tr>
<td>A.4 Architectural Design Skills</td>
<td>B.4 Technical Documentation</td>
<td></td>
</tr>
<tr>
<td>A.5 Order Systems</td>
<td>B.5 Structural Systems</td>
<td></td>
</tr>
<tr>
<td>A.6 Use of Precedents</td>
<td>B.6 Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>A.7 History and Global Culture</td>
<td>B.7 Building Envelope Systems and Assemblies</td>
<td></td>
</tr>
<tr>
<td>A.8 Cultural Diversity and Social Equity</td>
<td>B.8 Building Materials and Assemblies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.9 Building Service Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B.10 Financial Considerations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>REALM D: PROFESSIONAL PRACTICE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>D.1 Stakeholder Roles in Architecture</td>
</tr>
<tr>
<td>D.2 Project Management</td>
</tr>
<tr>
<td>D.3 Business Practices</td>
</tr>
<tr>
<td>D.4 Legal Responsibilities</td>
</tr>
<tr>
<td>D.5 Professional Conduct</td>
</tr>
</tbody>
</table>
Timeline/Process

• Collateral Steering Committee & NAAB Task Force working now
• Forum held July 2019 in Chicago
• New *Conditions* and *Procedures* take effect January 1, 2020
• First visits under the new *Conditions* and *Procedures* occur Spring 2021
Accreditation Review Forum 2019

Changes to Process

• Steering Committee coming to Forum with “Draft 0” of the new Conditions

• New Conditions & Procedures drafted & adopted simultaneously

• Lengthy Public Comment Period replaced with month-long “stakeholder review”
ARForum19 & CCCAP

• CCCAP will be invited to the Forum

• CCCAP will be part of the “stakeholder review”

• B.Arch programs with Spring 2021 visits will need to successfully evaluate 2-year transfer credits under the new Conditions
For more information on the NAAB

www.naab.org
NCARB
Experience + Examination
Architectural Experience Program (AXP)

All 54 jurisdictions utilize AXP to meet the experience requirement for licensure.

3,740 total hours.
High School Graduation
...since December 16, 2013
Experience Areas

- **Practice Management**
  - 16 Tasks
  - 160 Hours

- **Project Management**
  - 32 Tasks
  - 360 Hours

- **Programming & Analysis**
  - 18 Tasks
  - 260 Hours

- **Project Planning & Design**
  - 17 Tasks
  - 1,080 Hours

- **Project Development & Documentation**
  - 7 Tasks
  - 1,520 Hours

- **Construction & Evaluation**
  - 6 Tasks
  - 360 Hours
Experience Requirement by Jurisdiction

The map illustrates the experience requirements by jurisdiction across the United States. States are color-coded to indicate different requirements:

- **AXP (3,740 hours)**: Indicates the standard requirement of 3,740 hours of experience. These states are outlined in blue.
- **Duration Requirement**: Indicates additional duration requirements for the experience. These states are outlined in blue with a yellow + sign.
- **AXP + 1,860 hours**: Indicates additional hours of experience required beyond the standard 3,740 hours. These states are outlined in light blue.
- **Duration Requirement**: Indicates additional duration requirements beyond the 1,860-hour addition. These states are outlined in light blue with a yellow + sign.

Some states are highlighted in gray to indicate specific experience requirements not covered by the other categories. The map is a visual representation provided by NCARB.
Programming & Analysis Tasks

Upon finishing the AXP, you should be able to competently perform the following tasks:

- Determine impact of applicable zoning and development ordinances to determine project constraints
- Gather information about community concerns and issues that may impact proposed project
- Consider recommendations from geotechnical studies when establishing design parameters
- Assist owner in preparing building program including list of spaces and their characteristics
- Develop conceptual budget
- Establish project design goals
- Prepare site analysis diagrams to document existing conditions, features, infrastructure, and regulatory requirements
- Consider results of environmental studies when developing site alternatives
- Review legal documents related to site to determine project constraints
Experience Setting A

Practice of Architecture
MINIMUM 1,860 HOURS

To earn experience in employment opportunities, you must be paid.
### Experience Setting O

<table>
<thead>
<tr>
<th>Other Work Experience Under Licensed Professionals</th>
<th>Maximum Hours Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Architect, Landscape Architect, Engineer, Architect not practicing architecture</td>
<td>1,860 Hours</td>
</tr>
</tbody>
</table>

| Design or Construction Related Employment | 320 Hours |
| Community-Based Design Center/Collaborative | 320 Hours |
| CSI Certifications: CCS & CCCA | 40 Hours |
| Design Competitions | 320 Hours |
| NCARB’s Professional Conduct Monograph | 10 Hours |
| Site Visit With Mentor | 40 Hours |
| Construction Work | 320 Hours |
| AIA Continuing Education for HSW | 20 Hours/experience area |

*To earn experience in employment opportunities, you must be paid.*
All 54 jurisdictions require the ARE as the professional examination to determine competency for architectural practice.
ARE 5.0

Practice Management
80 Items
3 Hours 30 Mins

Project Management
95 Items
4 Hours

Programming & Analysis
95 Items
4 Hours

Project Planning & Design
120 Items
5 Hours

Project Development & Documentation
120 Items
5 Hours

Construction & Evaluation
95 Items
4 Hours
ARE 5.0 Resources

- ARE® 5.0 Guidelines
- ARE® 5.0 Handbook
- ARE® 5.0 Community from NCARB
- ARE® 5.0 Video Prep Series
Integrated Path to Architectural Licensure (IPAL)
NCARB Certificate

Has met all requirements for Council Certification and is therefore recommended to all Registration Authorities for registration or license as an architect. Given under our hands and the seal of the Council.
NCARB Certificate Requirements

- Education
- Experience
- Examination
- Licensure
- NCARB Certification
NCARB Certification

Signifies that an individual has met the professional standards established by the registration boards.

Facilitates reciprocal registration among all 54 Member Boards and 11 Canadian provinces.
What does it take to get a license in your jurisdiction?

www.ncarb.org/registrationboards
Education Guidelines

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This document, effective May 2017, supersedes all previous editions of the Education Guidelines and the Education Standard. Please check NCARB’s website, www.ncarb.org, regularly for updates to this publication and for the most current information regarding the Architectural Experience Program® (AEP) and the experience requirement for NCARB certification.
Trends in Licensure Support at Architecture Firms

Obtaining licensure is a primary objective for many architecture school graduates, and many architecture firms provide assistance to encourage emerging professionals along this path. But while both emerging professionals and supervisors believe that obtaining a license is important, larger differences emerge when considering the groups' perceptions of each other.
Architect Licensing Advisors
Join the Conversation

@NCARB

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National Council of Architectural Registration Boards (NCARB)

youtube.com/NCARBorg

are5community.ncarb.org
Thank You!