### Chapter A-E 3

#### **ARCHITECT REGISTRATION**

		Application	
A-E	3.03		
		Architectural experience	

A-E 3.04	Education as an experience equivalent for registration as an architect
A-E 3.05	Examination
A-E 3.06	Engineering experience

Note: Chapter A-E 3 as it existed on February 28, 1987 was repealed and a new chapter A-E 3 was created effective March 1, 1987.

A-E 3.01 Authority and purpose. The rules in this chapter are adopted under authority in ss. 15.08 (5) (b), 227.11, 443.03, 443.09 and 443.10, Stats. The purpose of rules in this chapter is to interpret basic education, experience and examination requirements for registration as an architect as specified in ss. 443.03, 443.09 and 443.10, Stats.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87.

A-E 3.02 Application. An application for registration as an architect is available upon request to the board office located at 1400 East Washington Avenue, Madison, Wisconsin 53702. An applicant who files an application but who does not comply with a request for information related to the application within one year from the date of the request shall file a new application.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87.

A-E 3.03 Architectural experience. In satisfaction of the 2 year experience requirement of s. 443.03 (1) (b) 1., Stats., or in satisfaction of 2 years of the 7 year requirement of s. 443.03 (1) (b) 2., Stats., applicants for registration as an architect shall complete the intern architect development program sponsored by the national council of architectural registration boards and the American institute of architects, or shall submit evidence of experience in architectural work which the board finds is substantially equivalent to the experience obtained by completing the intern architect development program.

# Figure A-E 3.03 TABLE OF TRAINING REQUIREMENTS INTERN ARCHITECT DEVELOPMENT PROGRAM

	Minimum	
official Profit with a first state of the contract of the cont	Hours Require	
Category A		
Design and Construction Documents		
Programming — Client Contact	80	
Site and Environmental Analysis	80	
Schematic Design	120	
Building Cost Analysis	80	
Code Research	120	
Design Development	320	
Construction Documents	1160	
Specifications and Materials Research	120	
Document Checking and Coordination	120	
Elective Hours Required Within Category A	600	
Minimum Hours Required, Category A	2800	
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Category B Construction Administration

Bidding and Contract Negotiation		80
Construction Phase — Office		120
Construction Phase — Observation		120
Elective Hours Required Within Category B		240
Minimum Hours Required, Category B		560
Category C		
Management		
Project Management		120
Office Management		80
Elective Hours Required Within Category C		80
Minimum Hours Required, Category C		280
Category D		
Related Activities		
Professional and Community Service		. 80
Minimum Hours Required, Category D		80

Note: Description of Training Requirements.

Category A: Design and Construction Documents.

- 1. Programming Client Contact. Programming is the process of setting forth in writing the owner's requirements for a given project. Steps in this process include establishing goals; considering a budget; collecting, organizing and analyzing data; isolated and developing concepts; and determining needs in general.
- 2. Site and Environmental Analysis. Site analysis includes land planning, urban design and environmental evaluation. Land planning and urban design are concerned with relationships to surrounding areas and involve consideration of the physical, economic and social impact of proposed land use on the environment, ecology, traffic and population patterns.
- 3. Schematic Design. The architect develops alternative solutions to satisfy technical and aesthetic requirements.
- 4. Building Cost Analysis. An important responsibility is to evaluate the probable project construction cost. Accurate estimates are crucial. They influence decisions involving basic design, selection of building products and systems and construction scheduling.
- 5. Code Research. Codes promulgated by building inspectors, officials in zoning, environmental and other agencies relating to the health, welfare and safety of the public have a direct bearing on the total design process, and thorough knowledge of all requirements is essential to the satisfactory completion of any project.
- 6. Design Development. Based on the schematic design, the architect fixes and details, for the owner's further ap-

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proval, the size and character of the entire project, including selection of materials and engineering systems.

- 7. Construction Documents. The working drawings phase of construction documents preparation describe in graphic form all of the essentials of the work to be done: location, size, arrangement and details of the project. It is extremely important that the documents be accurate, consistent, complete and understandable. This requires thorough quality control including constant review and crosschecking of all documents. In addition, effective coordination of consultants' drawings is essential to avoid conflicts between the various trades during construction.
- 8. Specifications and Materials Research. Well-grounded knowledge of specifications writing principles and procedures is essential to the preparation of sound, enforceable specifications. Specification writing requires the architect to understand the relationship between drawings and specification, and to be able to communicate in a logical, orderly sequence, the requirements of the construction process. Many factors must be considered in the selection and evaluation of material or products to be used in a project: appropriateness, durability, aesthetic quality, initial cost, maintenance. It is extremely important that the architect recognize the function of each item to be specified. The architect must carefully assess new materials as well as new or unusual applications of familiar items.
- 9. Document Checking and Coordination. Before final release of construction documents for construction purposes, the drawings must be checked and cross-checked for accuracy and compatibility.

#### Category B: Construction Administration.

- 1. Bidding and Contract Negotiation. The architect assists in establishing and administering bidding procedures, issuing addenda, evaluating proposed substitutions, reviewing the qualifications of bidders, analyzing bids or negotiated proposals, and making recommendations for the selection of the contractor(s). The construction contract and related documents detail the desired product and the services to be provided in its construction, as well as the consideration to be paid for the product and the services.
- 2. Construction Phase Office. During the construction phase there are many related tasks which do not directly involve field observations: processing contractors' applications for payment, change orders, shop drawings and samples, adjudicating disputes. The handling of these matters will usually have a direct bearing on the smooth functioning of the work in the field.
- 3. Construction Phase Observation. The architect's function is to determine if the contractor's work generally conforms to the requirements of the contract documents. The architect must be thoroughly familiar with all of the provisions of the construction contract. Periodic reports on the stage of completion of scheduled activities are collected and compared to the overall project schedule at job site meetings. These meetings produce a detailed project record. The architect must determine through observation the date of substantial completion and receive all data, warranties and releases required by the contract documents prior to final inspection and final payment. The architect also interprets contract documents when disagreements occur and judges the dispute impartially.

Category C: Management.

- 1. Project Management. The economic and professional health of a firm depends on the orderly, trackable method of project execution. A clearly defined project work plan, the key to the efficient management of project tasks, requires participation and input from team members, consultants, client representatives and other key decisionmakers (financial experts, developers, lawyers and contractors). The project manager defines consensus goals. and coordinates tasks and scheduling. Team building depends on clear goals and good communication, with particular attention to decisions that influence the work of multiple team members. A project file initiated and maintained by the project manager is the comprehensive record of the project's life and a useful resource for future endeavors. The work plan must be congruent with all project-related contractual agreements (which are normally maintained in the project file). Scheduled quality control reviews are identified in the work plan; the project manager may request interim reviews in advance of established submittal dates. It is the project manager's responsibility to measure actual schedule/budget progress against the work plan "yardstick," assess all discrepancies and take the corrective action necessary to maintain project control. The project manager also maintains design quality during bidding, contract negotiation and construction phases through administration of the project file, oversees the construction representative and monitors scheduled on-site quality reviews. Finally, the project manager closes out project records and agreements and sets up future post-occupancy evaluation procedures.
- 2. Office Management. Steady income must be generated and expenses carefully budgeted and monitored so that economic stability can be maintained. Accurate records must be kept for tax purposes and for use in future work. Established office requirements and regulations are essential to maintaining a smooth operation. The architect's relationship to the owner is established by contractual agreement, which establishes the duties and obligations of the parties. Effective public relations plays an essential role in the practice. The architect must learn marketing techniques which are effective while remaining within legitimate rules of professional conduct.

#### Category D: Related Activities.

Professional and Community Service. The architect must participate in public service programs and must also maintain a supportive role with others involved in the construction industry.

- (2) Satisfactory experience in architectural work shall consist of related practical training including at least one year of experience in the design and construction of buildings under the supervision of a registered architect, professional engineer, or exempt person as defined in s. 443.14, Stats., prior or subsequent to acquisition of approved educational equivalents.
- (3) To qualify as satisfactory experience in architectural work, employment shall consist of at least 2 or more continuous months.

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(4) Not more than one year of credit for satisfactory experience in architectural work may be granted for any calendar year.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87; r. and recr. Register, November, 1990, No. 419, eff. 1-1-93; am., cr. (2) to (4), Register, January, 1993, No. 445, eff. 2-1-93.

- A-E 3.04 Education as an experience equivalent for registration as an architect. (1) For the purpose of meeting experience requirements for registration as an architect, an applicant may claim certain education as equivalent to experience in architectural work, as provided in s. 443.03 (2), Stats. To qualify as equivalent to experience in architectural work, the education shall be obtained at a university, college or technical school approved by the architect section of the examining board.
- (2) The architect section shall approve all curricula in architecture that are accredited by the national architectural accrediting board (NAAB).
- (3) Each 45 quarter hours or 30 semester hours of credit earned is equivalent to one year of work experience. The maximum equivalent that may be obtained is set forth in the table in figure 3.04 (3).

#### FIGURE 3.04 (3)

## TABLE OF EDUCATION AND EXPERIENCE EQUIVALENTS FOR ARCHITECTS

Education	Maximum Experience Equivalent
Architectural Degree [Accredited by the National Architectural Accrediting Board (NAAB) — U005D]]	5 years
Planning, Architectural Engineering, Structural Engineering or Non-Accredited Architectural Studies Degree	4 years
Courses in NAAB Accredited Architecture Program Without Degree	4 years
Planning, Architectural Engineering, Structural Engineering or Non-Accredited Archi-	3 years
tectural Studies Courses Without De- gree	
Other Bachelor Degrees	3 years
Other Courses With- out Degrees	2 years
NAAB Accredited Master of Architecture Degree Subsequent to Accredited	Considered as ½ year

Bachelor of Architectural Degree

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87.

A-E 3.05 Examination. (1) ARCHITECT EXAMINATION REQUIRED. An applicant for registration as an architect, unless applying under s. 443.10 (1), Stats., shall successfully complete an examination on architectural services which measures the knowledge and skills necessary to competently practice architecture. The examination shall test the following architectural services and service elements:

- (a) Pre-design
- 1. Design objectives.
- 2. Space requirements.
- 3. Space relations.
- 4. Flexibility and expansibility.
- 5. Site requirements
- (b) Site Design
- 1. Land utilization.
- 2. Structures placement.
- 3. Form relationships.
- 4. Movement, circulation and parking.
- 5. Utility systems.
- 6. Surface and subsurface conditions.
- 7. Ecological requirements.
- 8. Deeds, zoning and construction.
- 9. Topography and relations to surrounding.
- 10. Architectural management and coordination.
- 11. Cost.
- (c) Building Design
- 1. Building sections, elevations and plans.
- 2. Selections and layout of building systems.
- 3. Structural considerations.
- 4. Mechanical considerations.
- 5. Electrical considerations.
- 6. Civil considerations.
- 7. Interior considerations.
- 8. Design documentation.
- (d) Building Systems
- 1. Structural systems.
- 2. Lateral forces.
- 3. Mechanical, electrical and plumbing.
- 4. Miscellaneous systems.
- 5. Materials and methods.
- 6. Coordination.

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- 7. Cost consideration.
- (e) Construction Documents and Services
- 1. Architectural drawings.
- 2. Structural drawings.
- 3. Interior drawings.
- 4. Specifications.
- 5. Cost estimates.
- 6. Bidding documents.
- 7. Organization and handling bids.
- 8. Bids evaluation.
- 9. Coordination and management.
- 10. Construction administration in office.
- 11. Construction administration in field.
- 12. Field tests.
- 13. Quotation requests and change orders.
- 14. Construction cost accounting.
- 15. Project close-out.
- (2) REQUIREMENTS FOR ENTRANCE TO THE EXAMINATION. To be eligible to take a scheduled examination, the applicant shall submit documentation certifying he or she has all but one year of academic credit and qualifying architectural experience, as specified in s. 443.03 (1) (b) 1., Stats., or all but one year of qualifying architectural experience, as specified in s. 443.03 (1) (b) 2, Stats.
- (3) APPLICATION FOR EXAMINATION. An application for examination shall be filed with the board no later than 2 months before the scheduled date for the examination.
- (4) FORM, SCHEDULE, GRADING. The form, schedule and grading for the examination is established by the national council of architectural registration boards.
- (5) TIME, DATE AND SITE OF EXAMINATION. The examination shall be held at a time, date and site specified by the board.
- (6) EXAMINATION AND REFUND FEES. The fee for an architect examination and requirements for refund of fees are specified in s. 440.05, Stats., and ch. RL 4.

- (7) RE-EXAMINATION PROCEDURE. An applicant who began the examination procedure in or after June of 1983 for an architect examination who fails an examination or any part of an examination may retake any part of the examination failed at a regularly-scheduled administration of the examination. The board shall determine which parts of a current examination are equivalent to the examination parts failed by an applicant.
- (8) EXAMINATION REVIEW. (a) One-year limitation. Any applicant for an architect examination may review questions on any part of an examination failed by the applicant within one year from the date of the examination, as specified in s. 443.09 (6), Stats.
- (b) Review procedure. An applicant shall contact the board office located at 1400 East Washington Avenue, Madison, Wisconsin 53702, to schedule an appointment to review the appropriate examination parts. The applicant may take notes on the examination questions reviewed. No notes may be retained by the applicant following the review. All notes taken during the review shall be placed in the applicant's file. The review may not take place within 30 days prior to a scheduled examination.

History: Cr. Register, February, 1987, No. 374, eff. 3-1-87; am. (2) and (7), Register, January, 1993, No. 445, eff. 2-1-93.

- A-E 3.06 Application contents. An application shall include:
- (1) Transcripts or apprenticeship records verifying the applicant's education and training;
- (2) References from at least 5 individuals having personal knowledge of the applicant's experience in the practice of architecture, 3 of whom are licensed architects;
- (3) A chronological history of the applicant's employment; and
- (4) Any additional data, exhibits or references showing the extent and quality of the applicant's experience that may be required by the architect section.

History: Cr. Register, January, 1993, No. 445, eff. 2-1-93.