Certification Policies for ACI 318 Design Professional

Last revised by the Certification Programs Committee
September 14, 2023

The statements contained herein are a consolidation of approved policies and procedures. This policy statement supersedes all previous action regarding ACI 318 Design Professional certification.

The certification program policies are organized into seven sections as follows:

Section 1.0	Certification Criteria
Section 2.0	Definitions
Section 3.0	ACI Responsibilities
Section 4.0	Examiner, Supplemental Examiner, and Proctor Criteria and Responsibilities
Section 5.0	Examination Criteria
Section 6.0	Appeals Procedures

SECTION 1.0 CERTIFICATION CRITERIA

1.1 The American Concrete Institute (ACI) shall recognize individuals certified as ACI 318-yy Design Professional, where yy is the two-digit year of the version of ACI 318 upon which the individual was certified.

1.2 Certification as an ACI 318 Design Professional shall require:

A) Successful completion of a written examination AND

B) Documentation of required education

1.3 The education required for ACI 318 Design Professional certification is as follows:

A) Bachelor's, Master's, or PhD degree in Civil Engineering, Construction Engineering, or Architectural Engineering, attested by the candidate that the program included coursework in concrete design.

1.4 ACI certification for each version of ACI 318 shall be valid 10 years from the date of completion of all certification requirements.

1.5 Recertification requires completion of the requirements of section 1.2. Only one recertification shall be awarded.

1.6 Groups desiring to conduct ACI Certification program(s) shall adhere to the current Policy on Sponsoring Groups for Certification (Annex 693.1-1).

SECTION 2.0 DEFINITIONS

2.1 Examinee - a person taking the written examination.

2.2 Examiner - a person authorized by ACI to be in responsible charge of an examination session.

2.3 Proctor - a person authorized to assist the Examiner in conducting the written examination.

SECTION 3.0 ACI RESPONSIBILITIES

3.1 ACI shall maintain each version of the program for 15 years, after which the version will be retired.

3.2 ACI shall assemble, maintain, and distribute all examination materials.

3.3 ACI shall approve the Sponsoring Group.

3.4 ACI shall authorize the Sponsoring Group to conduct examination sessions for ACI 318 Design Professional

3.5 ACI shall approve the Examiner.

3.6 ACI shall grade the written examinations and notify the examinee of the final results.

3.7 ACI shall evaluate education and determine conformance with requirements of applicants as a ACI 318 Design Professional.

3.8 ACI shall issue certification credentials to successful examinees.

3.9 ACI shall process appeals.

SECTION 4.0 EXAMINER, SUPPLEMENTAL EXAMINER, AND PROCTOR CRITERIA AND RESPONSIBILITIES

4.1 The Examiner must be authorized by ACI to conduct sessions for this program. Examiner applications must be submitted by the Sponsoring Group and will be evaluated based on the applicant's experience and familiarity with this and/or other ACI Certification programs.

4.2 The Examiner shall be present and in full supervision during the examination session.

4.3 The Examiner shall:

A) Verify the identity of each examinee and ensure that the examinees are aware of the certification criteria.

B) Confirm the suitability of the facilities selected by the Sponsoring Group.

C) Maintain exam security and secrecy of the examination content.

D) Not define terms or interpret examination questions while conducting the examination.

4.4 Proctors adjudged trustworthy and conscientious by the Examiner shall be permitted to assist the Examiner in conducting the written examination.

4.5 Examiners and proctors shall be unrelated professionally and personally to the examinees. Government organizations may petition ACI, in writing, and request a waiver of this requirement. Waivers shall be granted only if it can be shown that the intent of the policy will be maintained.

SECTION 5.0 EXAMINATION CRITERIA

5.1 The written examination shall consist of approximately 80 multiple choice questions.

5.2 The ACI 318 Design Professional written examination is derived from the information listed in *Job Task Analysis (JTA) for ACI 318-yy Design Professional Certification* (Annex 693.1-2). Each version of ACI 318 will have a unique written examination and unique JTA designated in the Appendices by letter code.

5.3 The written examination is open-book. The technical materials allowed into the examination room are limited to the resource materials listed in the JTA.

5.4 A maximum time of 120 minutes (2 hours) shall be allowed to complete the written examination, after which the exam answer sheets must be collected. Additional time—up to 30 minutes—with access to the exam question booklet will be allotted to the examinee to facilitate exam question challenges.

5.5 The examination shall be supervised by an ACI-approved Examiner, assisted, when necessary, by a proctor appointed by the Examiner.

5.6 The Examiner, proctors, and members of the Sponsoring Group have no jurisdiction over the content of questions on any specific examinations.

5.7 Verbal administration of the examination shall be permitted, contingent upon prior approval by the ACI Certification Department.

5.8 Successful completion of the written examination shall require the examinee to:

A) Score fifty percent [50%] or higher (i.e., four [4] correct out of eight [8] questions) on each section identified in the JTA; AND

B) Score a minimum of seventy percent [70%] for the overall examination (i.e., fifty-six [56] correct out of a possible eighty [80]).

5.9 Failure of the written examination by the criteria cited under Section 5.8 shall require a re-examination on the entire written examination.

SECTION 6.0 APPEALS CRITERIA

6.1 An appeal procedure shall be available if the examinee feels some aspect of the examination process is unclear, incorrect, or unfair.

6.2 Appeals regarding the conduct of the examination should be referred initially to the Examiner.

6.3 If the Examiner cannot satisfy the complaint, it should be referred directly to ACI, in writing, within 60 days of the examination date.

6.4 Appeals referred to ACI are handled in order by the following people or groups:

A) Sponsoring Group

B) ACI Managing Director of Certification

C) The Certification Appeals Committee [consisting of the Managing Director of Certification; the Certification Programs Committee Chairman, and the Chairman of Committee C693]

D) Committee C693, ACI 318 Design Professional Certification

E) Certification Programs Committee

End of Policy Text

ANNEX 693.1-1

AMERICAN CONCRETE INSTITUTE

Policy on Sponsoring Groups for Certification

Approved by the ACI Board of Direction
March 21, 1991

Last revised by the ACI Certification Programs Committee
October 18, 2011

In developing certification exams for the concrete construction industry, the American Concrete Institute (ACI) has set forth minimum criteria by which an individual's proficiency is to be judged. Typically, ACI is not in a position to deliver certification exams directly to participants; therefore, it is necessary for ACI to have the ability to delegate this authority. However, if the need arises, ACI reserves the right to conduct exam sessions itself according to each program Policy.

In order to allow others to deliver its certification exams, ACI has adopted the "Sponsoring Group" concept. Sponsoring Groups act as agents of ACI in the delivery of ACI certification exams. Therefore, prior to being selected as an ACI Sponsoring Group, and for the duration of the period in which the group is authorized to act as a Sponsoring Group, such groups are subject to the following policies:

1. Sponsoring Groups shall be approved, in writing, by ACI's Certification Department (hereafter referred to as ACI) before they will be permitted to conduct an ACI[1] certification exam session. In all cases, approval of Sponsoring Groups shall be at the sole discretion of ACI.

2. In reviewing applications, ACI will consider, among other factors, the following:

   A) The ability and willingness of the applicant to include in their constituency segments of the concrete construction industry impacted by the exams which they have applied to conduct. This includes individuals involved in the specification, production, design, construction, testing and inspection of concrete and concrete products. The applicant must establish a governance structure with representation appropriate to all of the exams for which the applicant has applied.

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[1] For the purposes of this policy, references to "ACI certification" and "ACI certification program(s)" include only those administered solely by ACI (ACI programs). Programs with cosponsors are not directly addressed by this Policy.

B) The interest, experience and technical expertise necessary to conduct exam sessions exhibited by the applicant and/or their certification governance structure.

C) The legitimate need for the applicant to conduct a specific ACI certification exam within their approved operational jurisdiction.

D) The primary objective of the applicant in applying for sponsorship, which must coincide with ACI's overall mission of improving the quality of concrete construction within the political, social, and cultural dynamics of the intended operational jurisdiction.

3. Sponsoring Groups are required to maintain a governance structure to oversee the delivery of ACI exams. The governance structure shall consist of a committee of at least three (3) individuals, each working for a different employer and each producing a different product or service related to the concrete construction industry. At all times, at least one (1) member of the committee shall be a member of ACI. Further, ACI shall be furnished with a complete and accurate listing of contact information for all committee members including names, employers, type of businesses, physical addresses, email addresses, and both office telephone and cell phone numbers as available.

4. The certification committee shall obtain the services of ACI-approved examiners. The examiners shall operate under the direct supervision of the certification committee to conduct ACI certification exam sessions. Examiners are permitted to conduct ACI certification exam sessions only under the auspices of ACI or ACI-approved Sponsoring Groups; and they must comply with all ACI certification policies and procedures.

5. At the time of approval, ACI shall assign Sponsoring Groups specific geographical areas within which they will have authority to conduct ACI certification exam sessions. This area is the approved operational jurisdiction for the Sponsoring Group.

6. ACI shall approve each Sponsoring Group on a calendar year basis for a period not to exceed two (2) years. Prior to the conclusion of this period, all groups shall reapply to ACI for approval to continue to act as an ACI Sponsoring Group.

7. In the U.S., in areas where no Sponsoring Group is actively administering a specific ACI examination, the local ACI chapter (not a student chapter) shall have first rights to administer that specific exam. International sponsorship for any ACI examination will be assessed on a case-by-case basis.

8. If an existing Sponsoring Group or ACI Chapter is solicited to administer an examination and participation is declined, or if a sponsor does not request an examination upon initial availability from ACI, or if a requested examination is not administered within two years following approval, administration of said examination may become available to other potential sponsors.

9. If more than one applicant wishes to sponsor an ACI certification exam in the same operational jurisdiction and there is documented need for more than one group to conduct the examination in that jurisdiction or portion thereof, a system of coordination between those groups shall be established. A description of this system shall be considered along with any new Sponsoring Group application and must be included in the governance system for any existing Sponsoring Group. In all cases, ACI reserves the right, in its sole discretion, to select a delivery system that in its judgment is best able to serve the interests of ACI.

10. Applicants wishing to sponsor ACI certification examinations on a "national" or "regional" basis will, in appropriate circumstances, be approved to conduct exams under specific conditions at the discretion of ACI.

11. Approved Sponsoring Groups are responsible for:

    A) Maintaining control over the administration of ACI Certification exams offered within their operational jurisdiction. This includes, but is not limited to, maintaining control over the ethical and professional integrity of every sponsored examination session and providing ongoing oversight of exam session coordinators, examiners, and other exam delivery personnel.

    B) Conducting a sufficient number of exam sessions and providing equitable access to those exam sessions for all individuals seeking ACI Certification within the group’s operational jurisdiction.

    C) Conducting all ACI exams in a manner which complies with the intent of ACI's policies and procedures governing certification.

    D) Formulating, publishing, and enforcing consistent and equitable pricing for ACI Certification exams offered by the Sponsoring Group within their operational jurisdiction.

    E) Developing and implementing participant registration processes that satisfy the policy requirements of each exam offered by the Sponsoring Group and verifying that each participant has met the eligibility requirements of the program before being allowed to complete an ACI exam.

F) Collecting exam fees from participants, paying materials invoices to ACI within 30 days of receipt, and distributing compensation to examiners and other program delivery personnel as warranted.

G) Developing a program delivery process that establishes separation between the education/training and testing divisions of the Sponsoring Group.

12. ACI has the right to revoke a Sponsoring Group's authority to conduct an ACI certification exam at any time, with or without cause, and with or without notice.

13. Appeals resulting from the denial or revocation of Sponsoring Group status will be reviewed by ACI Staff for determination of appropriate action on a case-by-case basis.

14. This policy shall become effective sixty (60) days after its approval by the ACI Certification Programs Committee, and shall render all previous Policy versions null and void. Sponsoring Groups shall be notified of this new policy in writing within thirty (30) days after it is approved by the ACI Certification Programs Committee.

15. The Certification Programs Committee shall review, revise as necessary, and reapprove this Policy at intervals not exceeding two years in length.

ANNEX 693.1-2

Job Task Analysis (JTA) for ACI 318-19 Design Professional Certification

HOW TO USE THIS JTA:
For each of the following assessment methods, the Candidate must:

On the written examination:

- **Understand** the following general concepts, which may not have specified values, procedures, or measurements; *and*
- **Know** the following specific procedures or values; performance of these items may also be assessed on the performance examination.

RESOURCES:

ACI 318-19 Building Code Requirements for Structural Concrete and Commentary

*SBC 304-2023, Saudi Building Code for Concrete Structures, may be used as a resource in place of ACI 318-19 for the open-book examination.

General, Loads, and Analysis (Ch 1-6)

- Understand the general requirements of the 318 Building Code.
- Understand the stated purpose of the Code.
- Know the types of structures to which the Code applies
- Understand the principles of interpretation of the Code.
- Understand the meaning of the terms Building Official and Licensed Design Professional.
- Understand how special systems of design, construction, or alternative construction materials are approved.
- Understand the notation defined in the Code.
- Understand the terminology defined in the Code.
- Know which edition of the standards cited in the Code apply.
- Know which structural elements are included in the structural load path.
- Know which sections of the Code apply to structural systems designated as part of the seismic-force-resisting system of the structure.
- Understand the function of diaphragms and the forces they are required to be designed for.
- Understand the requirements for analytical procedures.
- Understand the concepts of nominal strength, strength reduction factors, design strength, and required strength as well as the differences and relationships between them.
- Know the additional requirements of the Code for precast concrete systems, prestressed concrete systems, composite concrete flexural members, and structural plain concrete systems.
- Understand how to apply load factors to determine required strength.
- Know the methods of analysis permitted by the Code
- Understand the requirements to determine if slenderness effects may be neglected in axially loaded members, as well as permitted methods to quantify second order effects.
- Know the requirements to determine T-beam geometry in monolithic construction.
- Know the requirements for arrangement of live load.
- Know the limitations of the simplified method of analysis for beams and slabs presented in Section 6.5 of the Code.
- Understand the requirements for first-order analyses.
- Understand the requirements for elastic second-order analyses.

ANNEX 693.1-2

Job Task Analysis (JTA) for ACI 318-19 Design Professional Certification (Continued)

Member Design (Ch 7-14)

- Know the scope of the provisions for one-way slabs, two-way slabs, beams, columns, walls, diaphragms, foundations, and plain concrete.
- Know where to find material, design, and detailing requirements for members.
- Know where to find design requirements for connections to other members.
- Know the minimum thickness/depth requirements for one-way slabs, two-way slabs, beams, walls, diaphragms, and shallow foundations and when they apply.
- Know the calculated deflection limits for one-way slabs, two-way slabs, and beams, and when they apply.
- Know the reinforcement strain limits for nonprestressed and prestressed one-way slabs, two-way slabs, and beams.
- Understand the strength requirements for one-way slabs, two-way slabs, beams, columns, walls, and diaphragms.
- Understand how to calculate design strength of one-way slabs, two-way slabs, beams, columns, walls, and diaphragms.
- Understand the reinforcement limits for one-way slabs, two-way slabs, beams, columns, walls, and diaphragms.
- Know the reinforcement detailing requirements for one-way slabs, two-way slabs, beams, columns, walls, and diaphragms.
- Know the requirements for determining flange width in T-beam construction.
- Know the requirements for nonprestressed one-way and two-way joist systems.
- Know the definition of a deep beam and the requirements for deep beam design.
- Know the dimensional requirements for columns, drop panels, and shear caps.
- Know the load distribution requirements for walls.
- Understand the alternative method requirements for out-of-plane slender wall analysis
- Know the requirements for foundation members that transmit forces resulting from earthquake effects and when they apply.
- Know the requirements for slabs-on-ground that transmit forces to the ground.
- Know the design criteria for foundations.
- Know the locations of critical sections for design of shallow foundations and pile caps.
- Know the requirements for development of reinforcement in shallow foundations and pile caps.
- Understand the design requirements for shallow foundations.
- Understand the design requirements for deep foundations.

Joints/Connections/Anchors (Ch 15-17)

- Know the scope of the provisions for beam-column and slab-column joints.
- Understand the general requirements for beam-column and slab-column joints.
- Understand the requirements for transfer of column axial force through the floor system.
- Know the requirements for detailing of beam-column and slab-column joints.
- Know the scope of the provisions for connections between members.
- Understand the requirements for connections of precast members.
- Understand the requirements for connections to foundations.
- Understand the requirements for horizontal shear transfer in composite concrete flexural members.

ANNEX 693.1-2

Job Task Analysis (JTA) for ACI 318-19 Design Professional Certification (Continued)

- Understand the requirements for brackets and corbels.
- Know the scope of the provisions for anchoring to concrete.
- Know the limitations on concrete compressive strength permitted for calculation of anchor capacity.
- Understand the general requirements for anchor strength.
- Understand the design requirements for anchors loaded in tension.
- Understand the design requirements for anchors loaded in shear.
- Understand the design requirements for anchors loaded in combined tension and shear.
- Understand the requirements for edge distance, spacing, and thickness to preclude splitting.
- Understand the requirements for earthquake resistant design of anchors.
- Understand the design requirements for attachments with shear lugs.

Seismic Design (Ch 18)

- Understand which concrete structures and systems are governed by the seismic design requirements in Chapter 18 of the Code.
- Understand which additional requirements apply to the structural systems and elements designated as part of the seismic force resisting system.
- Understand the additional seismic detailing requirements for members of ordinary moment frames.
- Understand the additional seismic detailing requirements for members of intermediate moment frames.
- Understand the additional seismic detailing requirements for special structural walls.

Material Properties and Durability Requirements (Ch 19-20)

- Know the scope of the provisions for concrete design and durability requirements.
- Know the requirements for concrete design properties.
- Understand the concrete durability requirements.
- Know the scope of the provisions for steel reinforcement properties, durability, and embedments.
- Know the material property requirements for nonprestressed bars and wires.
- Know the design property requirements for nonprestressed bars and wires.
- Know the material property requirements for prestressing strands, wires, and bars.
- Know the design property requirements for prestressing strands, wires, and bars.
- Know the specified concrete cover requirements for durability of steel reinforcement.
- Know the durability requirements for nonprestressed coated reinforcement.
- Know the corrosion protection requirements for unbonded prestressing reinforcement.
- Know the corrosion protection requirements for grouted tendons.
- Know the requirements for embedments.

Toolbox Chapters (Ch 21-25)

- Know the requirements for determining strength reduction factors.
- Know the scope of the provisions for sectional strength.
- Understand the design assumptions for moment and axial strength.
- Understand the requirements for calculating nominal flexural strength.
- Understand the requirements for calculating nominal axial strength or combined flexural and axial strength.
- Understand the requirements for calculating nominal one-way shear strength.

ANNEX 693.1-2

Job Task Analysis (JTA) for ACI 318-19 Design Professional Certification (Continued)

- Understand the requirements for calculating nominal two-way shear strength.
- Understand the requirements for calculating nominal torsional strength.
- Understand the requirements for calculating nominal bearing strength.
- Understand the requirements for calculating nominal shear friction strength.

- Know the scope of the provisions for the strut-and-tie method.
- Know the strut and tie method design strength requirements.
- Know the strut and tie method minimum distributed reinforcement requirements.
- Know the scope of the provisions for serviceability.
- Understand the requirements for calculation of deflections due to service-level gravity loads.
- Know the requirements for distribution of flexural reinforcement in one-way slabs and beams.
- Know the requirements for shrinkage and temperature reinforcement.
- Know the scope of the provisions for reinforcement details.
- Know the requirements for minimum reinforcement spacing
- Know the requirements for detailing of hooks, ties, and minimum inside bend diameters.
- Know the requirements for development of reinforcement.
- Know the requirements for splicing of reinforcement.
- Know the requirements for bundling reinforcing bars.
- Know the requirements for transverse reinforcement.

Construction Requirements and Strength Evaluation (Ch 26-27)

- Know the scope of the provisions for construction documents and inspection.
- Know the requirements for including design criteria in construction documents.
- Know the requirements for including member information in construction documents.
- Know the requirements for including concrete materials and mixture in construction documents.
- Know the requirements for including concrete production and construction in construction documents.
- Know the requirements for including reinforcement materials and construction in construction documents.
- Know the requirements for including anchoring-to-concrete in construction documents.
- Know the requirements for including embedment in construction documents.
- Know the requirements for including precast concrete in construction documents.
- Know the requirements for including prestressed concrete in construction documents.
- Know the requirements for including formwork in construction documents.
- Know the requirements for including concrete evaluation and acceptance in construction documents.
- Know the requirements for including inspection in construction documents.
- Know the scope of the provisions for strength evaluation of existing structures.