

481—1049.1(542B) Requirements for licensure by examination. The specific requirements for initial licensing in Iowa are established in Iowa Code section 542B.14, and it is the board's intention to issue initial licensure only when those requirements are satisfied chronologically as set forth in the statute.

1049.1(1) The applicant for initial licensure in Iowa must satisfy the education plus experience requirements stated in Iowa Code section 542B.14 "b"(1). The chart in subrule 1049.1(8) details education-based experience requirements. If the applicant's degree is not in surveying, surveying technology, engineering, or engineering technology, the applicant must have taken a minimum of nine credit hours in mathematics, of which at least one course must include trigonometry in its coursework, and may include college algebra, trigonometry, analytic geometry, differential and integral calculus, linear algebra, numerical analysis, probability and statistics, and advanced calculus; and a minimum of nine credit hours in basic sciences, which must cover one or more of the following topics: general chemistry, advanced chemistry, biology, geology, ecology, meteorology, astronomy, forestry, general physics, advanced physics, or land surveying, for the applicant's degree to be a qualifying degree.

a. Internet or online degrees will only be considered as qualifying degrees if the institution issuing the degree is accredited by a recognized accreditation board or the degree is evaluated as substantially equivalent to that of an accredited program by the National Council of Examiners for Engineering and Surveying (NCEES). The board may accept evaluations from other recognized foreign credential evaluators satisfactory to the board. Initiating the evaluation and the expense of the evaluation are the responsibilities of the applicant. Each evaluation shall be sent directly to the board from the evaluation service and shall include a copy of the transcript in the form sent to the evaluation service directly from the educational institution.

b. Internet or online degrees will only be considered as qualifying degrees if the institution issuing the degree is accredited by a recognized accreditation board.

1049.1(2) The applicant must successfully complete the Fundamentals of Land Surveying examination. The applicant may take the Fundamentals of Land Surveying examination any time after the education and experience requirements described above are completed.

1049.1(3) The applicant must successfully complete the Principles and Practice of Land Surveying examination. An applicant may take the Principles and Practice of Land Surveying examination after passing the Fundamentals of Land Surveying examination.

1049.1(4) The applicant satisfies the qualifying experience requirements set forth in this chapter.

1049.1(5) The applicant must successfully complete the Iowa-specific land surveying examination administered by the board.

1049.1(6) Work project description. A complete application includes a statement of approximately 200 words describing a significant project on which the applicant worked closely during the last 12 months. The statement describes the applicant's degree of responsibility for the project and identifies the project's owner and its location. The statement is signed and dated. The criteria the board uses in evaluating the acceptability of the project as qualifying experience for the applicant includes, but is not limited to, the following:

- a.* The degree to which the project and the experience described has progressed from assignments typical of initial assignments to those more nearly expected of a licensed professional;
- b.* The scope and quality of the professional tutelage experienced by the applicant;
- c.* The technical decisions required of the applicant in the project; and
- d.* The professional decisions required of the applicant.

The board reserves the right to contact the employer and the person providing tutelage on the project for information about the project experience presented to the applicant.

1049.1(7) References.

a. An applicant for the Principles and Practice of Land Surveying examination will submit a minimum of three references, on forms provided by the board, in accordance with the following:

- (1) The references will be from licensed professional land surveyors.
- (2) If the applicant has had more than one supervisor, at least two of the references are from a supervisor of the applicant.

(3) If an applicant has had professional experience under more than one employer, the applicant provides references from individuals with knowledge of the work performed under a minimum of two employers.

(4) The board reserves the right to contact employers for information about the applicant's professional experience and competence or to request additional references.

b. An applicant for the Fundamentals of Land Surveying examination will provide three references on forms provided by the board.

1049.1(8) Education and experience requirements. The board requires the minimum number of years set forth on the following chart before an applicant may take either the Fundamentals of Land Surveying or the Principles and Practice of Land Surveying examination. To determine the total years to become licensed as a land surveyor in Iowa, column 2 is added to column 1.

EXPERIENCE REQUIREMENTS		
If the applicant's educational level was:	The applicant must have the following years of experience prior to taking the Fundamentals of Land Surveying examination and the Principles and Practice examination:	The applicant must have the following additional years of experience before the board will issue a license in land surveying:*
A college program with fewer than nine credit hours of surveying [subrule 5.1(1)]		
Two-year degree	4	4
Four-year degree	2	4
Graduate degree	1	4
A college program with nine or more credit hours of surveying		
Two-year degree	0	4
Four-year degree	0	4
Graduate degree	0	4

*This allows applicants to take the Principles and Practice of Land Surveying examination and Iowa State Specific Land Surveying examination during this time period.

1049.1(9) Practical experience requirements. Practical land surveying experience, of which a minimum of one-half shall be field experience, is required prior to licensing. All practical experience must occur after high school graduation and be under the tutelage of a professional land surveyor.

a. Quality. Experience will demonstrate that the applicant has developed technical skill and initiative in the correct application of surveying principles. For the purposes of this chapter, one year of experience shall consist of 1,872 hours of full- or part-time employment, as attested to by the applicant's references. An applicant may use a maximum of 1,872 hours in any one 12-month period to satisfy the experience requirements. Full-time students, as defined by the student's school, may not, simultaneously, be considered full-time employees for the purposes of this chapter.

b. Scope. Experience will be of sufficient breadth and scope to ensure that the applicant has attained reasonably well-rounded professional competence in land surveying. For purposes of this rule, field experience is considered of sufficient breadth and scope if the applicant conducts research for boundary surveys, conducts boundary monument recovery field work, gathers field information necessary for boundary line recovery, analyzes all collected boundary recovery field data, establishes land surveying monuments in the field, prepares land surveying documents, as defined in this chapter, and writes property descriptions.

c. Progression. The record of experience will indicate successive and continued progress from initial work of simpler character to recent work of greater complexity and higher degree of responsibility.

d. Advanced education and military experience. An applicant's advanced education, military experience, or both will be reviewed to determine if they are applicable toward the statutory requirements for experience.

e. Joint applications. Applicants requesting licensure both as professional engineers and professional land surveyors must submit a history of professional experience in both fields. Such histories will

be considered separately on a case-by-case basis. The board does not grant full credit for concurrent experience in both professions.

1049.1(10) Examinations. The board prepares and grades the Iowa State Specific Land Surveying examination administered to professional land surveyor candidates. All other examinations are uniform examinations prepared and graded by the NCEES. The board may negotiate an agreement with an examination service to administer the examinations to applicants approved by the board, in which case applicants pay examination fees directly to the service.

An applicant who has failed two consecutive examinations of the state-specific portion of the professional land surveying examination is not allowed to retake the state-specific portion for one year.

a. Materials permitted in examination room. For security reasons, applicants shall comply with requirements regarding materials permitted in the examination room as issued by the NCEES and provided to candidates prior to the examination.

b. Release of examination results. Results of any examination are only reported as pass or fail, except that the candidate who fails an examination may be provided with the candidate's converted score and a diagnostic report indicating areas of weakness, as available.

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