

**1800.3910 EDUCATION AND EXPERIENCE.**

Subpart 1. **Written examination requirement.** An applicant for licensure within a geoscience discipline shall pass written examinations as provided in part 1800.3920.

An applicant for licensure under part 1800.0800, item I, shall satisfy the Minnesota licensing requirements that were in effect at the time of the applicant's original licensure in the other state, if the original license of the applicant was received after August 4, 1997. An applicant for licensure under part 1800.0800, item I, shall satisfy the Minnesota licensing requirements that were in effect on August 4, 1997, if the applicant's original licensure in the other state was received prior to August 4, 1997.

The written Fundamentals of Geology (FG) examination or Fundamentals of Soil Science (FSS) examination shall be waived by the board if:

- A. the applicant has a doctorate degree in the geoscience discipline in which the applicant is seeking licensure or equivalent doctorate degree as approved by the board; and
- B. the applicant meets the educational requirements in subpart 5.

Subp. 2. **Admission to written fundamentals examination.** To qualify for admission to the written fundamentals examination for a geoscience discipline, the applicant shall present evidence of the following:

- A. graduation or being within 30 semester or 45 quarter credits of graduation from a geoscience curriculum approved by the board for the geoscience discipline the applicant is seeking licensure in, as specified in subpart 5;
- B. graduation with a bachelor's degree from a non-board-approved curriculum with a minimum number of equivalent geoscience credits as specified in subpart 5; or
- C. graduation with a master's or doctorate degree in a non-board-approved curriculum with a minimum number of equivalent geoscience credits as specified in subpart 5.

Subp. 3. **Admission to written professional examination.** To qualify for admission to the written professional examination for a geoscience discipline, the applicant shall present evidence of meeting the educational and qualifying experience requirements in items A and B.

A. Education:

- (1) graduation from a geoscience curriculum approved by the board in the geoscience discipline in which the applicant is seeking licensure with the minimum number of geoscience credits as specified in subpart 5;

(2) graduation with a bachelor's degree from a non-board-approved curriculum with a minimum number of equivalent geoscience credits as specified in subpart 5; or

(3) graduation with a master's or doctorate degree in a non-board-approved curriculum with a minimum number of equivalent geoscience credits as specified in subpart 5.

B. Qualifying Experience:

(1) completion of a minimum of five years of qualifying geoscience experience in the discipline in which the applicant is seeking licensure if the applicant has graduated with a baccalaureate degree from a geoscience curriculum meeting the requirements of item A, subitem (1);

(2) completion of a minimum of four years of qualifying geoscience experience in the discipline in which the applicant is seeking licensure if the applicant has graduated with a master's degree or higher from geoscience curriculum meeting the requirements of item A, subitem (1);

(3) completion of a minimum of six years of qualifying geoscience experience in the discipline in which the applicant is seeking licensure if the applicant meets the educational requirements of item A, subitem (2); or

(4) completion of a minimum of five years of qualifying geoscience experience in the discipline in which the applicant is seeking licensure if the applicant meets the educational requirements of item A, subitem (3).

One-half (50 percent) of the qualifying geoscience experience gained prior to graduation but after completion of two full years of one of the geoscience curricula specified in item A shall be credited to satisfy part of the requirements for the qualifying geoscience experience required under this item. This credit shall not exceed two years of qualifying geoscience experience listed in this subpart.

Subp. 4. [Repealed, 38 SR 59]

Subp. 5. **Approved geoscience education.**

A. For an applicant seeking licensure as a professional geologist, the applicant shall present evidence of:

(1) a baccalaureate or higher degree in geology approved by the board, from an institution of higher learning approved by the board; and

(2) a minimum of 30 semester or 45 quarter hours in geology with a minimum of 24 semester hours or 36 quarter hours divided among at least three of the following core geology subjects:

- (a) physical geology;
- (b) historical geology;
- (c) stratigraphy;
- (d) sedimentology or sedimentary petrology;
- (e) mineralogy;
- (f) igneous and/or metamorphic petrology;
- (g) structural geology;
- (h) hydrogeology;
- (i) geochemistry;
- (j) geophysics;
- (k) glacial geology;
- (l) geomorphology; and
- (m) field geology or geologic field methods.

A description of the core geology subjects as well as a list of geology courses shall be maintained by the board.

B. For applicants seeking licensure as a professional soil scientist, the applicant shall present evidence of:

(1) a baccalaureate or higher degree in soil science approved by the board, from an accredited institution of higher learning or an institution of higher learning approved by the board;

(2) a minimum of 16 semester or 24 quarter hours in soil science; and

(3) a minimum of 14 semester or 21 quarter hours in closely related geoscience courses as recognized by the board. Soil science courses must include a minimum of two semester or three quarter hours in each of the following basic soil science areas:

(a) soil physical properties, soil biophysical environment, or soil water relations;

(b) soil chemical properties, soil chemical processes, or soil fertility;

(c) soil biological properties, soil biochemical process, environmental ecology, or soil microbial ecology; and

(d) soil genesis, soil classification, pedology, or soil morphology.

A list of courses included in each soil science study area and those which are recognized by the board as closely related geoscience courses shall be maintained by the board.

C. A maximum of three semester or five quarter hours of masters or doctorate degree thesis credits can be applied to the total number of credit hours.

Subp. 6. **Qualifying experience defined.** Qualifying geology experience must be obtained under the direct supervision of a licensed geologist. Qualifying soil science experience must be obtained under the direct supervision of a licensed geologist, licensed soil scientist, or licensed professional engineer who has qualified education and experience in the soil science discipline. As used in this part, "qualifying experience" consists of varied, progressive, nonrepetitive, practical experience in the discipline of geoscience in which the applicant is seeking licensure, developing the ability to apply the theoretical knowledge gained during academic training in making sound judgments in completing geoscientific work. The experience shall include elements of research, planning, technical specifications, codes and standards, research and analysis, economics, safety, observation of ongoing work, and the inspection of the completed project. Experience shall be written in detail, verified by the applicant's supervisor, and submitted with the application for evaluation and approval by the board. Qualifying experience must be acquired after graduation from a baccalaureate or higher degree curriculum in a discipline of geoscience approved by the board in the discipline which the applicant is seeking licensure, except that continuous experience in periods of ten or more weeks gained before graduation shall be counted if gained as specified in subpart 3, item B.

Subp. 7. [Repealed, 38 SR 59]

**Statutory Authority:** *MS s 326.06*

**History:** *22 SR 90; 38 SR 59*

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