017. EXAMINATIONS.

01. Special or Oral Examination. Examinations for licensure as a professional engineer or professional land surveyor, or certification as an engineer intern or land surveyor intern will be held on dates and at times and places to be determined by the Board. Special oral or written examinations may be given by the Board as necessary. (3-29-10)

02. Eligibility for Examinations, Educational Requirements. The application for licensure as a professional engineer, professional land surveyor or certification as an engineer intern or land surveyor intern, together with the written examination, shall be considered in the determination of the applicant’s eligibility. Each applicant must meet the minimum requirements as set forth in Section 54-1212, Idaho Code, before being assigned to any examination. (3-29-10)

   a. In regard to educational requirements, the Board will consider as unconditionally approved only those engineering programs which are accredited by the Engineering Accreditation Commission (EAC) of ABET, Inc. Non-EAC/ABET accredited engineering programs, related science programs, and engineering technology programs will be considered by the Board on their specific merits, but are not considered equal to engineering programs accredited by EAC/ABET. The Board may continue consideration of an application for valid reasons for a period of one (1) year, without forfeiture of the application fee. (3-29-10)

   b. An applicant who has completed a four (4) year bachelor degree program in engineering not accredited by EAC/ABET or a four (4) year bachelor degree program in engineering technology, or in a related science degree program other than engineering must have completed the following before the Board will consider them to possess knowledge and skill approximating that attained through graduation from an approved four (4) year engineering curriculum as required by Section 54-1212(3)(b), Idaho Code, for assignment to the examination for certification as an Engineer Intern or as required by Section 54-1212(1)(b), Idaho Code, for assignment to the examination for licensure as a professional engineer: (3-29-12)

      i. Thirty-two (32) college semester credit hours of higher mathematics and basic sciences. The credits in mathematics must be beyond algebra and trigonometry and must emphasize mathematical concepts and principles rather than computation. Courses in calculus and differential equations are required. Additional courses may include linear algebra, numerical analysis, probability and statistics and advanced calculus. The credits in basic sciences must include courses in chemistry and calculus-based general physics with a minimum of a two (2) semester (or equivalent) sequence in one or the other. Additional basic sciences courses may include life sciences (biology), earth sciences (geology, ecology), and advanced chemistry or physics. Computer skills and/or programming courses may not be used to satisfy mathematics or basic science requirements. Basic engineering science courses or sequence of courses in this area are acceptable for credit but may not be counted twice. (3-29-12)

      ii. Sixteen (16) college credit hours in a general education component that complements the technical content of the curriculum. Examples of traditional courses in this area are
philosophy, religion, history, literature, fine arts, sociology, psychology, political science, anthropology, economics, professional ethics, social responsibility. No more than six (6) credit hours of languages other than English or other than the applicant’s native language are acceptable for credit. English and foreign language courses in literature and civilization may be considered in this area. Courses which instill cultural values are acceptable, while routine exercises of personal craft are not. (3-29-12)

iii. Forty-eight (48) college credit hours of engineering science and engineering design. Courses shall be taught within the college / faculty of engineering having their roots in mathematics and basic sciences but carry knowledge further toward creative application of engineering principles. Examples of approved engineering science courses are mechanics, thermodynamics, heat transfer, electrical and electronic circuits, materials science, transport phenomena, and computer science (other than computer programming skills). Courses in engineering design stress the establishment of objectives and criteria, synthesis, analysis, construction, testing, and evaluation. Graduate level engineering courses can be included to fulfill curricular requirements in this area. Engineering technology courses cannot be considered to meet engineering topic requirements. (3-29-12)

iv. Standard, regularly scheduled courses from accredited university programs, (on campus, correspondence, video, etc.) are normally acceptable without further justification other than transcript listing. The Board may require detailed course descriptions for seminar, directed study, special problem and similar courses to insure that the above requirements are met. (7-1-93)

v. Graduate level engineering courses, i.e. courses which are available only to graduate students, are normally not acceptable since the Board believes graduate engineering courses may not provide the proper fundamental foundation to meet the broad requirements of professional engineering. (7-1-93)

d. The Board may require an independent evaluation of the engineering education of an applicant who was educated outside the United States. . . .