820-010-1020

Education and Experience Requirements for Registration as a Professional Engineer

The following combinations of education and experience may be used to satisfy subsection (3) of OAR 820-010-1000 (Qualifications for Registration as a Professional Engineer):

(1) *Accredited Baccalaureate Degree in Engineering or Construction Engineering Management, and Four Years of Experience.*

(a) Graduation from:

(A) EAC of ABET accredited baccalaureate of engineering degree program;

(B) TAC of ABET accredited baccalaureate of engineering degree program; or

(C) ACCE accredited four-year baccalaureate of construction engineering management degree program; and

(b) Four years of active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or four years of active practice in engineering work while registered in another jurisdiction with NCEES membership.

(c) Graduation from a post-baccalaureate degree program in engineering, from a college or university that offers an EAC of ABET accredited undergraduate program in a discipline similar to that of the post-baccalaureate degree program, may be substituted for one year of the experience required in subsection (b) of the rule.

(2) *Accredited Two Year Degrees, Specified Coursework, and Four Years of Experience.*

(a) Graduation from:

(A) TAC of ABET accredited two-year Engineering Technology program that includes:

(i) A total of at least 64 semester or 96 quarter hours;

(ii) At least 32 semester or 48 quarter hours in technical courses that cover skills and knowledge of appropriate methods, procedures, and techniques, as well as provide experience in established engineering procedures;

(iii) At least 16 semester or 24 quarter total hours in: math and science that include 4 semester or 6 quarter hours in basic sciences (physics, chemistry, earth and life sciences) and 8 semester or 12 quarter hours in mathematics (not including courses in computer programming or courses below the level of college algebra);

(iv) At least 9 semester or 13 quarter hours in social sciences, humanities and communications; or

(B) TAC of ABET accredited two-year Associate of Applied Science degree program in Engineering Technology that includes:

(i) A total of at least 64 semester or 96 quarter hours;

(ii) At least 32 semester or 48 quarter hours in technical courses that cover skills and knowledge of appropriate methods, procedures, and techniques, as well as provide experience in established engineering procedures;

(iii) At least 16 semester or 24 quarter total hours in: math and science that include 4 semester or 6 quarter hours in basic sciences (physics, chemistry, earth and life sciences) and 8 semester or 12 quarter hours in mathematics (not including courses in computer programming or courses below the level of college algebra);

(iv) At least 9 semester or 13 quarter hours in social sciences, humanities and communications; and

(b) Completion of additional course work consisting of 21 semester or 32 quarter hours in at least six of the nine following subjects: Differential Equations, Physics, Statistics, Statics,

Dynamics, Thermodynamics, Fluid Mechanics, Electrical Fundamentals, and Strength of Materials; and
(c) Four years of active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or four years of active practice in engineering work while registered in another jurisdiction with NCEES membership.
(3) *Accredited Two Year Degrees and Six Years of Experience.*
(a) Graduation from:
(A) TAC of ABET accredited two-year Engineering Technology program that includes:
(i) A total of at least 64 semester or 96 quarter hours;
(ii) At least 32 semester or 48 quarter hours in technical courses that cover skills and knowledge of appropriate methods, procedures, and techniques, as well as provide experience in established engineering procedures;
(iii) At least 16 semester or 24 quarter total hours in: math and science that include 4 semester or 6 quarter hours in basic sciences (physics, chemistry, earth and life sciences) and 8 semester or 12 quarter hours in mathematics (not including courses in computer programming or courses below the level of college algebra); and,
(iv) At least 9 semester or 13 quarter hours in social sciences, humanities and communications; or
(B) TAC of ABET accredited two-year Associate of Applied Science degree program in Engineering Technology that includes:
(i) A total of at least 64 semester or 96 quarter hours;
(ii) At least 32 semester or 48 quarter hours in technical courses that cover skills and knowledge of appropriate methods, procedures, and techniques, as well as provide experience in established engineering procedures;
(iii) At least 16 semester or 24 quarter total hours in: math and science that include 4 semester or 6 quarter hours in basic sciences (physics, chemistry, earth and life sciences) and 8 semester or 12 quarter hours in mathematics (not including courses in computer programming or courses below the level of college algebra); and,
(iv) At least 9 semester or 13 quarter hours in social sciences, humanities and communications; and
(b) Six years of active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or six years of active practice in engineering work while registered in another jurisdiction with NCEES membership.
(4) *Graduate Degree in Engineering and Four Years of Experience.*
(a) Graduation from a graduate degree program in engineering at a college or university that offers an EAC of ABET accredited undergraduate degree in the same program as the graduate degree;
(b) Completion of 21 semester or 32 quarter hours of engineering related technical course work, which shall include at least six of the nine following subjects: Differential Equations, Physics, Statistics, Statics, Dynamics, Thermodynamics, Fluid Mechanics, Electrical Fundamentals, and Strength of Materials; and
(c) Four years of active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered

engineer; or four years of active practice in engineering work while registered in another jurisdiction with NCEES membership.

(5) *Non-accredited Baccalaureate Degree in Engineering and Four Years of Experience*.

(a) Graduation from a four-year baccalaureate degree program in engineering, not accredited by ABET, if the degree is evaluated by NCEES Credential Evaluations (The cost of any NCEES Credentials Evaluation must be borne by the Applicant), and the Board determines that the degree is substantially equivalent to the educational requirements in subsection (1) of this rule; and

(b) Four years of active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or four years of active practice in engineering work while registered in another jurisdiction with NCEES membership.

(c) Graduation from a post-baccalaureate degree program in engineering, from a college or university that offers an EAC of ABET accredited undergraduate program in a discipline similar to that of the post-baccalaureate degree program, may be substituted for one year of the experience required in subsection (b) of the rule.

(6) *Course work from an Accredited Baccalaureate Program in Engineering, Accredited Two-Year Program in Engineering Technology, Qualifying Graduate Program, or Equivalent Baccalaureate Program in Engineering, with Additional Experience.*

(a) Course work from a qualifying program identified in subsections (1) to (5) of this rule, without graduation from that program, may be considered toward qualifying an Applicant for registration to the extent that the course work involves engineering principles or was obtained by the Applicant while enrolled in that engineering program.

(b) The Board will determine the amount of credit, if any, the course work will be given towards qualifying the Applicant for registration as a Professional Engineer.

(c) When relying on course work from a qualifying program identified in subsections (1) to (5) of this rule, without graduation from that program, an Applicant must also demonstrate that the Applicant's Board-credited course work, when combined with the Applicant's engineering work, is equivalent to 12 years of qualifying experience. For example, an Applicant who is granted two years of credit for course work under this subsection, must demonstrate 10 years of qualifying experience.

(d) Qualifying experience under this subsection is:

(A) Active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or

(B) Active practice in engineering work while registered in another jurisdiction with NCEES membership.

(7) *Non-accredited Baccalaureate Degree in Engineering, with Additional Experience.*

(a) Graduation from a non-accredited baccalaureate degree program evaluated by NCEES Credential Evaluations, which is determined by the Board not to be substantially equivalent to the educational requirements in subsection (1) of this rule, course work from that program may be considered toward qualifying an Applicant for registration to the extent that the course work involves engineering principles. The cost of any NCEES Credentials Evaluation must be borne by the Applicant.

(b) The Board will determine the amount of credit, if any, the course work will be given towards qualifying the Applicant for registration as a Professional Engineer.

(c) When relying on course work credit from a non-accredited degree that has been evaluated by NCEES Credential Evaluations but determined by the Board not to be equivalent to a degree from a program identified in subsection (1) of this rule, an Applicant must also demonstrate that the Applicant's Board-credited course work, when combined with the Applicant's engineering work, is equivalent to 12 years of qualifying experience. For example, an Applicant who is granted two years of credit for course work under this subsection, must demonstrate 10 years of qualifying experience.
(d) Qualifying experience under this subsection is:
(A) Active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or
(B) Active practice in engineering work while registered in another jurisdiction with NCEES membership.
(8) *Military Experience and Training.*
(a) Military experience and training may be considered as qualifying for the required education and experience under this rule if is evaluated by the Joint Services Transcript (JST) and the Board determines that it is substantially equivalent to the education and experience listed in subsections (1), (2), (3) or (4) of this rule.
(b) Military experience and training that is not determined to be substantially equivalent to the education and experience listed in subsections (1), (2), (3) or (4) of this rule may be considered toward qualifying an Applicant for registration to the extent that the experience and training involves engineering principles or qualifies as experience.
(c) The Board will determine the amount of educational credit, if any, the military training and experience will be given towards qualifying the Applicant for registration as a Professional Engineer.
(d) If applying with military training and experience, whether by qualifying military experience alone, a combination of educational credit and qualifying military experience, or a combination of educational credit, qualifying military experience, and qualifying non-military experience, an Applicant must demonstrate that the Applicant's training and experience is equivalent to a total of 12 years of qualifying experience. For example, an Applicant who is granted two years of credit for military training and experience under this subsection, must demonstrate 10 years of qualifying education, experience, or both outside of the military.
(e) Qualifying experience under this subsection is:
(A) Active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or
(B) Active practice in engineering work while registered in another jurisdiction with NCEES membership.
(9) *Experience Only.*
(a) 12 years of qualifying experience.
(b) Qualifying experience under this subsection is:
(A) Active practice in engineering work as defined in OAR 820-005-0035, in the Applicant's area of competence, and under the direction and supervision of a registered engineer; or
(B) Active practice in engineering work while registered in another jurisdiction with NCEES membership.
Stat. Auth.: ORS 670.310 & 672.255
Stats. Implemented: ORS 672.002 - 672.325

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