

NCEES Engineering Education Standard

Applicants having engineering degrees from programs that are not accredited by EAC/ABET must demonstrate the following:

A. 32 college semester credit hours of higher mathematics and basic sciences

1. 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.
2. Credits in basic sciences must include courses in chemistry and calculus-based general physics with a minimum of a two-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.

B. 16 college semester 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, and social responsibility. No more than 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 that instill cultural values are acceptable, while routine exercises of personal craft are not.

C. 48 college semester credit hours of engineering science and engineering design

Courses shall be taught within the college/faculty of engineering and shall have 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.

NCEES Credentials Evaluations

NCEES Credentials Evaluations will adhere to the following in conducting evaluations:

- Evaluations will be conducted on the following:
 1. Foreign engineering degree programs
 2. U.S.-based, non-EAC/ABET-accredited degree programs in engineering, engineering technology, related science, or mathematics only when coupled with a master's degree or doctorate from a program that is EAC/ABET-accredited at the undergraduate or graduate level

Evaluations may be conducted on programs that do not meet these criteria if specifically requested by an NCEES member board. Such requests must come directly from the member board to the NCEES Manager of Credentials Evaluations.

- NCEES will evaluate all programs against the NCEES standard. NCEES will no longer determine substantial equivalence to an EAC/ABET-accredited program.
- In conducting the evaluation, NCEES will consider the breadth of the applicant's education, to include bachelor's degree coursework, master's degree coursework, and doctorate coursework in determining satisfaction of the NCEES standard.
- NCEES will provide credit for any advanced coursework earned prior to college enrollment that is deemed appropriate for college-level academic credit (such as Advanced Placement, A-levels, Abitur, French Baccalaureate, International Baccalaureate, Lebanese Baccalaureate, etc.).
- A maximum of six hours' credit will be granted for thesis, special topics, and independent study at any level.
- Cooperative training, practicums, internships, and continuing education activities will not receive educational credits to satisfy the NCEES standard.
- NCEES will not conduct evaluations of degrees that are offered entirely via the Internet.
- NCEES will note any deficiencies in the applicant's educational history compared to the NCEES standard.

For applicants whose educational record indicates satisfaction of the NCEES standard, NCEES will report that the applicant possesses the education required in order to be considered by a member board for entry into the professional practice of engineering.

For applicants whose education record indicates deficiencies relative to the NCEES standard, those deficiencies will be noted for any action deemed appropriate by a member board. NCEES will also provide any relevant information concerning the educational requirements and/or any prerequisites for entry into engineering programs in the applicant's country for consideration and overall qualification by a member board.