

# MESSAGE

## Council moves forward with bachelor's plus 30 implementation



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NCEES President

For the past few years, one of the defining issues within the profession has been the issue of engineering education. In 2006, the Council voted to require an additional 30 credits of acceptable coursework beyond a bachelor's degree. That vote was reinforced by last year's decision by the Council to uphold the requirement.

There have been compelling arguments made by both sides, but nearly everyone agrees that undergraduate engineering education needs to be strengthened—both for the good of the profession and for the public health, safety, and welfare.

For many years, course requirements that were once devoted to developing an understanding of the concepts and skills necessary to practice engineering are being replaced by course requirements in nontechnical areas. At the same time, the base of knowledge required of engineers is expanding as new technologies are embraced. These trends are explained in the National Academy of Engineering's *Engineer of 2020* report.

The motion made by the Committee on Uniform Procedures and Legislative Guidelines in 2006 to require the additional credits had a long history of careful research that took into account many factors that were and still are affecting the engineering profession.

Since 2001, the Engineering Licensure Qualifications Task Force and later the Licensure Qualifications Oversight Group investigated the state of undergraduate engineering education, concluding that the amount of academic coursework devoted to teaching future engineers science, mathematics and design is declining even while the base of knowledge required of competent professionals is expanding.

NCEES faced a call to action: if licensure is to continue to protect the public by ensuring that adequate standards of professional knowledge

are met, then more coursework is needed. Furthermore, it was not simply that more coursework should be required as a prerequisite to licensure, but that added coursework needs to address a base of knowledge that is continually growing as engineering becomes more complex.

The bachelor's plus 30 requirement is the Council's response to this issue. However, there is much work left to be done. Now that the additional education requirement is in the *Model Law*, it is the Council's responsibility to ensure that it exists in a form that can be implemented by the Member Boards. That is the job of the Bachelor's + 30 Task Force, which met first in December and will meet again in February as it works to address its charges. The most important charge the task force faces is to develop definitions for approved credits and approved course providers that will fulfill the additional education requirement.

The adoption of additional education requirements for licensure was an important step to take in the face of the prevalent trends in engineering education and practice. The next natural step is to make the requirement a reality by hammering out the specifics.

I encourage all Council members to pay close attention in the coming months to the work done by all our committees and task forces—especially that of the Bachelor's + 30 Task Force. I encourage you to keep up-to-date by reading this newsletter and by attending your zone's interim meeting this spring. The committees and task forces, including the Bachelor's + 30 Task Force, will have representatives in attendance to present their findings. Your informed feedback will be very important as they go forward in finalizing their motions and recommendations ahead of the Annual Meeting.

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