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This symposium consists of three papers presented as part of the program of the Chemical Engineering Division, ASEE at the Annual Conference, Annapolis, Maryland, June 24, 1971. Overall it serves to review the development of chemical engineering technology education in the United States, report the present status and look to the future. Speaking for the authors, we are indebted to CEE for early publication of the symposium which we feel deals with an important and timely topic.

In 1969-70 there were 24,001 two-year associate degrees and 4,105 bachelor's degrees awarded in engineering technology in the United States¹ Of these only 374 and 14, respectively, were in chemical engineering technology. The same year there were 42,966 bachelor's degrees conferred in engineering 3,730 of which were in chemical engineering. In light of these numbers, one might ask why should we in chemical engineering be concerned about technology education?

The answer to this question is becoming increasingly apparent. Since World War II, the engineering practice content of our curricula has been greatly reduced to accommodate more work in mathematics, socio-humanistic subjects and the engineering sciences. While those in industry recognize the need for a significant number of young engineers so educated, the suppressed frustration resulting from a steady diet of *only* this type of new hire has recently surfaced in articles appearing in *Chemical Engineering*^{2,3} and else-

where. The main point seems to be that colleges should at least offer students an option of taking a less theoretical course than is presently given.

This option could be a separate technology program at the baccalaureate level or a bifurcated (parallel) program within an established department. The recently released Interim Report of the ASEE Engineering Technology Education Study⁴ recommends that technology programs be "strongly differentiated" from engineering programs in terms of admission standards, faculty, administration, etc. One of the papers in this symposium offers as an alternative a program administered within a single department and leading to the BS in four years or the Masters in five. In either case, the Masters as the first professional degree is likely to become more common.

AIChE responded in 1969 to the need to become more involved in technology. The Committee is active in curriculum studies, accreditation, programming and technician affiliation. Arnold Gully, the present chairman, served on a panel with the speakers to answer questions during a spirited discussion which followed the symposium. □

REFERENCES

1. Alden, J. D., Engineering and Technology Degrees, 1969-70. *Engr. Ed.*, **61**, 431 (1971).
2. Reid, W. C., A Critical Appraisal of Today's Education of Chemical Engineers. *Chem. Engr.*, **77**, No. 23, 106 (1970).
3. Calling for a Change in Ch.E. Education. *Chem. Engr.*, **78**, No. 7, 99 (1971).
4. Interim Report, Engineering Technology Education Study, ASEE, 53, June 1971.

Baccalaureate Programs in ChE Technology

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INTRODUCTION

The baccalaureate technology curriculum is a fairly recent development within the higher education enterprise in the United States.

This is in contrast with engineering education, which has in this country a history of nearly two centuries, dating back to the founding

of the Military Academy at West Point in 1802, followed shortly thereafter by the inauguration of "civil" engineering at various institutions and also by the establishment, in 1824, of Rensselaer Polytechnic Institute, the first American institution of higher education devoted exclusively to engineering education.

The brief history of baccalaureate engineering technology education is also in contrast with the

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