

them in physical chemistry. For years we have been educating students and training them with the overall goal of preparing them to work for companies such as duPont and Standard Oil. This approach was very appropriate and extremely successful in the past. However, we must now prepare students for the unknown future and for imaginary employers which may include a genetic engineering company, space processing companies, and, maybe, molecular computer manufacturers. Courses such as distillation must be eliminated and replaced. This does not mean that distillation is a thing of the past. To the contrary, energy problems will be staying with us for a long, long time. However, teaching distillation is not a subject which increases the student's innovative capabilities nor does it provide basic science for the unknown future.

CONCLUDING REMARKS

I was always proud of chemical engineering, mainly because it was the only branch of engineering where science played a major role. As the field matured I sensed a departure from the fundamentals of

science and the increasing reliance on applications. In order to regain the enthusiasm of the early years, and in order to establish new frontiers, we must rearrange our educational priorities and teach basic biochemistry, microbiology, genetics, solid state physics, and human factors engineering. We must undertake new courses as well, which teach innovative problem-solving and which encourage cross-disciplinary thinking. This is the only way we can preserve and revitalize chemical engineering, and it is the best insurance that we will establish new industries which promise to improve the quality of life.

The crisis of maturity confronting chemical engineering can be resolved with energy, courage, and foresight. The most important decisions will center on which traditions to maintain and which new approaches to establish. The question of whether we are in the midst of a crisis or are simply a matured profession is a debate we don't have time for. The lack of risk-taking, excitement and vision are the only relevant problems to be confronted. I am confident that wise deliberation will underscore our opportunities. □

THE WILLIAM H. CORCORAN OUTSTANDING PAPER AWARD

In the opinion of many, Bill Corcoran did more for the advancement of chemical engineering education and engineering education in general in the United States than any other person in recent decades. He shared his many talents selflessly, often working quietly behind the scenes, but more frequently in important positions of leadership. Recognition of Bill's many contributions through establishment of the William H. Corcoran Outstanding Paper Award allows the ASEE Chemical Engineering Division to, in Bill's own words, "pay back the debt we owe." Bill was describing his own dedication to his profession as a measure of his appreciation for the opportunities given him early in his career.

Bill Corcoran's excellence in teaching and his strong interest in students were recognized through his selection to receive the ASEE Western Electric Fund and Lamme Awards and the ABET L. E. Grinter Award. His comprehensive research on the nitrogen oxides predated the general recognition of the key role these substances play in environmental control. He pioneered the application of chemical engineering principles to biomedical engineering.

Singling out one area most noteworthy from the many in which Bill did so much is difficult, but many would agree that the area should be the technical literature. His own extensive list of publications includes

three books and many widely read contributions to the technical literature and to contemporary thought about engineering education and practice. He was a member of the publications Board of *Chemical Engineering Education* from 1966 until his death, serving as its chairman in 1967-68 and again in 1975-77. At the national level in ASEE, he served on the Publications Policy Committee, Engineering Education Editorial Committee and ECRC Publications Committee. He held similar assignments in the American Chemical Society and in AIChE.

Bill is perhaps best known within ASEE for the landmark report resulting from the 1975-77 study of the Committee on Review of Engineering and Engineering Technology Studies which he chaired. His extensive service to AIChE led to his election as president in 1978; he was president-elect of ABET at the time of his death in 1982. He was elected to the National Academy of Engineering in 1980.

Through dedicated teaching, research, service and publications, Bill Corcoran was a positive force in engineering education. Just as Bill did throughout his career, the Corcoran Award will grow in stature over the years, beginning with its distinguished inauguration at the Cincinnati Annual Conference.

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