

A STUDENT POINT OF VIEW

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IN RECENT YEARS, many graduates with bachelor's degrees in the sciences and liberal arts have experienced difficulty in obtaining professional employment, and one means of arriving at a rewarding career is through advanced training in chemical engineering.

We are among the first group of students to participate in this innovative program, and have now completed our second year. The authors feel that, as a result of this program, we will be as well prepared to practice engineering as those students who receive both bachelor's and master's degrees in ChE.

LEVELLING PROGRAM

THE PREVIOUS ADVANCEMENT program required a minimum of three years of study, including two years of levelling plus the same 30 hours of graduate courses required of all M.S. candidates. Because of the long time span, this format did not appeal to many students who were interested in acquiring advanced technical skills. The present program is much more attractive, and is different only as the result of having condensed the two years of levelling work into one, without sacrificing the quality of instruction. The only disadvantage of the present structure is that the work is very intensive, and little time is available for relaxation and recreation.

Our professors realized that with such a fast learning rate, it would be easy for us to get hopelessly behind in our studies very quickly. To be sure that this situation did not develop, they were always available to answer questions. In addition, one afternoon per week was set aside as a time for us to ask questions and clarify the material, and this proved to be a valuable link in our learning process.

At the beginning of our studies, we needed to learn to think quantitatively and communicate in engineering terms. Consequently, we covered

material slowly and in great detail, working many problems. As our competence improved, the problems became fewer in number but more complex. Almost before we realized it, we were thinking like engineers!

Because of the fact pace of our courses, there was no time for the usual laboratory work. There were also few opportunities to develop engineering judgment and common sense adequately, so vital elements were missing from our education. To rectify this situation, we were encouraged to obtain summer employment in industry following the year of levelling work. Those of us who did work gained the practical experience that has made the remainder of our graduate courses much more meaningful.

THE PRESENT—AND FUTURE

COMPETING IN THE REGULAR graduate courses with students who, for the most part, have superior technical backgrounds has been a challenge. Several students have B.S. degrees in ChE plus several years of industrial experience. They invariably understand the problems better and fare better on tests. It is easy for those of us who have participated in the career advancement program to become discouraged when we cannot understand the concepts as readily as those with more experience. Our greatest satisfaction is the realization that we have learned so much about engineering in such a short time.

We are all engaged in research projects leading to the writing of theses, and have not found that we are at a disadvantage in this regard. However, one problem that has been common to all of us is finding enough time to devote to both our course work and research projects.

In interviewing for jobs, we have found that we are as acceptable to industry as students who earn both B.S. and M.S. degrees in ChE. Our opportunities for plant trips and our salary offers have been comparable to those of other graduate students.

Our educational experiences during the last two years have been somewhat unique as well as very exciting and challenging. It is our belief that we will be well prepared graduate engineers, and we look forward to the technical improvements we can make during our professional careers as chemical engineers. □