

A LETTER TO CHEMICAL ENGINEERING SENIORS

As a senior you may be asking some questions about graduate school. In this issue CEE attempts to assist you in finding answers to them and reports on a survey of industrial needs for Ph.D.'s.

Should you go to graduate school?

Through the papers in this special graduate education issue, *Chemical Engineering Education* invites you to consider graduate school as an opportunity to further your professional development. We believe that you will find that graduate work is an exciting and intellectually satisfying experience. We also feel that graduate study can provide you with insurance against the increasing danger of technical obsolescence. Furthermore, we believe that graduate research work under the guidance of an inspiring and interested faculty member will be important in your growth toward confidence, independence, and maturity.

Is there a need for Ph.D.'s in ChE?

Yes, definitely. A survey conducted by CEE of ten leading companies indicated that while during 1980-81 they had combined needs for 220 chemical engineering Ph.D.'s, they were only able to hire 143. Most companies also indicated that their 1981-82 needs will be as great. In addition, it is well known that there has been for several years a great need for additional professors in chemical engineering departments—a position for which a Ph.D. is required.

What is taught in graduate school?

In order to familiarize you with the content of some of the areas of graduate chemical engineering, we are continuing the practice of featuring articles on graduate courses as they are taught by scholars at various universities. We strongly suggest that you supplement your reading of this issue by also reading the articles published in previous years. If your department chairman or professors cannot supply you with the latter, we would be pleased to do so at no charge.

What is the nature of graduate research?

In an effort to acquaint you with some of the

areas of research in chemical engineering, we are also publishing articles on the research of certain faculty members. These articles, as well as those on course work, are only intended to provide examples of graduate research and course work. The professors who have written them are by no means the only authorities in those fields, nor are their departments the only departments which emphasize that area of study.

Where should you go to graduate school?

It is common for a student to broaden himself by doing graduate work at an institution other than the one from which he receives his bachelor's degree. Fortunately there are many fine chemical engineering departments and each of these has its own "personality" with special emphases and distinctive strengths. For example, in choosing a graduate school you might first consider which school is most suitable for your own future plans to teach or to go into industry. If you have a specific research project in mind, you might want to attend a university which emphasizes that area and where a prominent specialist is a member of the faculty. On the other hand if you are unsure of your field of research, you might consider a department that has a large faculty with widely diversified interests so as to ensure for yourself a wide choice of projects. Then again you might prefer the atmosphere of a department with a small enrollment of graduate students. In any case, we suggest that you begin by writing the schools that have provided information on their graduate programs in the back of this issue. You will probably also wish to seek advice from members of the faculty at your own school.

But wherever you decide to go, we suggest that you explore the possibility of continuing your education in graduate school.

Sincerely,

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