October, 1997

Department of Chemical Engineering Graduates
Michigan State University

Dear Spartan Friend,

Although we plan to keep sending out a departmental newsletter, preparing and printing a newsletter is quite a large undertaking and I thought you might wish to receive a shorter note from us more often. Thus I have decided to write you myself now and again; perhaps two or three times a year when I have something to communicate. So here goes.

In early September, Chemical and Engineering News published statistics for research in departments of chemistry and chemical engineering across the country. A copy of one page of the report is enclosed. As you will see, our department placed sixth in the nation in total research expenditures and twelfth in expenditures of federal research funds in 1995. The figures for 1996 will be comparable. Our real performance, however, is even better than this report indicates. On a per faculty member basis, we rank third nationally in total research expenditures and are first, numero uno, in the Big 10.

This is an outstanding achievement given that just fifteen years ago we had very little research activity in the department. Please feel free to share this result with your coworkers; our department deserves much more recognition than it has yet received and we certainly won’t mind if you help us blow our mutual horn. (Not to gloat, but as you examine the attached page you may notice that a certain school in Ann Arbor didn’t even make the list. Go State! 😊)

I want to assure you that our improvement as a research department has not come at the expense of undergraduate teaching. We remain, and I remain, totally committed to providing an excellent undergraduate experience for our students. More about that in a moment. For example, Professor Dennis Miller won the Amoco Foundation Excellence in Teaching Award last year. This is an all-University award and Dennis was literally competing against every other faculty member in the University for one of two awards given. Dennis is also an important part of the department’s recent success in research and is an exemplary faculty member in every way.

As another example of our continuing commitment to undergraduate education, Dr. Alec Scranton is away on sabbatical at the University of Colorado this year. Sabbatical leaves are usually a time for faculty to focus on research and scholarly activities. Alec is indeed spending half of his sabbatical concentrating on his research in photopolymerization but the other half he is devoting to putting Chemical Engineering 201 (Material and Energy Balances, I’m sure you remember it fondly) on the Internet. He will offer the first Net version of this course in spring 1999. This new course has tremendous potential. Stay tuned for details.
We are also excited about another recent development. You may be aware that the Accreditation Board for Engineering and Technology (ABET), an organization which examines and accredits all engineering programs in the country, has recently revised its accreditation guidelines. One result of these new guidelines is to give us much more flexibility in constructing our undergraduate chemical engineering curriculum than we have ever had before. (Unfortunately, ABET’s past requirements functioned more like a straight jacket than a road map.) We are now moving steadily but carefully to revise our undergraduate curriculum.

Our curriculum revision goal is to identify the core course content which distinguishes a chemical engineer from other engineers and to emphasize that material in our undergraduate curriculum. With the core firmly in place, we will try to provide as much flexibility as possible to our undergraduate students in constructing courses of study that fit their interests and abilities. We will still provide clear and specific advice to students on how to use this flexibility. For instance, we are constructing model curricula featuring a chemical engineering core with options in food engineering, environmental engineering, biochemical/pharmaceutical engineering and polymers and composites processing. We have long had students interested in each of these areas; perhaps they will now be able to pursue their interests in more depth while at State.

We would like to hear from you at any time. Specifically, I invite your feedback regarding the chemical engineering course material which in your own careers has proved to be most essential to you, the “core” of your identity as a chemical engineer. We will also be developing external advisory groups for each of the options listed above, and perhaps for other options which we have not yet identified. If you wish to serve on one of these boards, or would like to provide a “reality check” for us as we work on the core course material, please let me know. We will put you right to work.

I would also like to ask one more favor from you. We are currently developing a self study document as part of our preparation for an accreditation visit in Fall, 1998. We are among only a dozen or so schools that have volunteered to undergo evaluation under the new criteria. As part of our preparations, you may be contacted by one of our students early next spring for an evaluation of your educational experience here. Please give them a few minutes of your time to complete a short questionnaire. We really do value your input!

Thanks very much for your help. I look forward to working with you as we go forward together. Please drop in and see me whenever you are in town.

Sincerely yours,

Bruce E. Dale
Professor and Chair