April 2, 2003

Dear IE Alumni,

As you may have heard, the accreditation process for engineering has undergone substantial changes over the past 5 years. In addition to assessing student learning in defined content areas, we must also develop a process for evaluating changing requirements in industry.

Our approach in Industrial Engineering has been to define a two-loop process for continuous improvement. As part of the process, we are hoping that you would be willing to take a few moments to complete and return the attached alumni survey. While aggregate results will be posted to our assessment page, individual responses are kept strictly confidential. The survey should take no more than 15-20 minutes to complete but will be invaluable in our overall accreditation process. When you complete the survey, simply place the survey in the pre-addressed stamped envelope and drop it in the mail.

Thank you for your consideration in this survey. With schedules as busy as they are we certainly appreciate your continued involvement with the Industrial Engineering program.

Sincerely,

Stuart Kellogg, Ph.D., P.E.
Pietz Professor and Director of Industrial Engineering
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Industrial Engineering Education Alumni Questionnaire

As part of the new accreditation process, we are soliciting your opinions as a Tech engineering alum, about your undergraduate engineering education. We are interested in learning about your experiences at Tech, your current perspective on the education that you received, and your level of preparation when compared with your colleagues. Your responses will remain confidential.

**Marking Instructions**
Each section is clearly marked. Please use a number two pencil only. For check boxes ☐, please fill in the box completely (correct ■, incorrect ☑).

A. Demographics

1. Which of the following describes the types of industries/services you have primarily worked in? (check all that apply)

   - ☐ Healthcare
   - ☐ Banking/Finance
   - ☐ Consulting
   - ☐ Government
   - ☐ Computers/Software
   - ☐ Communications/Information Systems
   - ☐ Manufacturing
   - ☐ Operations Management
   - ☐ Quality Control
   - ☐ Retail
   - ☐ Transportation
   - ☐ Utilities
   - ☐ Not gainfully employed (retired, choosing to stay at home, etc)

   Other:
2. Which of the following best describes the types of positions you have primarily had? (Check all that apply)

- Executive
- Manager
- Educator
- Operations
- Project Management
- Professional (physician, lawyer, etc)
- Research and Development
- Sales/Marketing

Other:

3. What is the highest level of education you have completed beyond the bachelor's degree?

- Some postgraduate work
- M.S. in Industrial Engineering
- M.S. in another engineering degree
- MS, non-Engineering
- Ph.D. in Industrial Engineering
- Ph.D. in another field

Other:

4. Besides formal coursework, how have you continued your professional development following graduation? (Check all that apply)

- 0-15 hours of professional development courses
- 16-30 hours of professional development courses
- I am a member of IIE
- I am a member of a professional organization other than IIE
- I am a Registered Professional Engineer

Other:
B. Overall Ratings

1. Please rate how confident you felt/feel about your abilities as an industrial engineer
   a. at the time of graduation
   b. currently

2. Based on your experience as an undergraduate student, rate the industrial engineering program in the following areas. This rating should reflect a global perspective including both best and worst experiences.
   a. Industrial engineering curriculum
   b. In-class instruction – classroom experiences with faculty
   c. Project experience – course projects, coops, capstone
   d. Advising and counseling – course advising, career mentoring

3. Based on your experience as a student, rate your overall experience at Tech in the following areas. This rating should reflect a global perspective including both best and worst experiences.
   a. Attitudes towards students
   b. Opportunities for student growth – student organizations, projects, extra or co-curricular opportunities

4. What is the overall rating of your industrial engineering education at Tech?
   a. Overall rating

C. Engineering Education Knowledge, Skills, Habits

For the following knowledge and skills, please fill in the oval corresponding to the response that best describes how well prepared you feel you are when compared to your colleagues.

a. Basic math and science knowledge
b. Basic engineering knowledge
c. Industrial engineering discipline-specific knowledge
d. Data analysis
e. Technology skills
f. Problem solving abilities
g. Teamwork skills
h. Engineering design skills
i. Management skills
j. Societal context
k. Ethics and professionalism
l. Lifelong learning
D. Curriculum and Instruction

1. Based on your experience since graduation, please rate the industrial engineering curriculum in the following areas.
   a. Provided technical, problem solving, and design skills necessary to succeed in industry.
   b. Skills learned closely matched the requirements needed in industry.
   c. Course content was up-to-date with current practice in industry.
   d. Provided a foundation for solving problems not in a text
   e. Provided a foundation for wanting to learn more

2. Please evaluate the experiences from your undergraduate laboratory activities in each of the following areas.
   a. Applied what I learned in lecture
   b. Provided practical experiences of the knowledge and skills taught
   c. Reinforced my communication skills
   d. Reinforced my ability to work effectively with others

3. Please evaluate the project experiences (class projects, senior design) in each of the following areas.
   a. Applied my problem solving abilities
   b. Reinforced my written communication skills
   c. Reinforced my oral/presentation skills
   d. Developed interpersonal skills
   e. Developed organization skills
   f. Gained an understanding of the work environment
   g. Gained confidence in my ability to make decisions

If you ever had an engineering job (internship, coop, summer, part-time, etc.) during your undergraduate experience, please evaluate the experience in question 5 below. If not, skip question 5 and go to the next section.

4. Please evaluate the work experience in each of the following areas.
   a. Strengthened my problem solving abilities
   b. Helped me to communicate with others
   c. Helped me to develop time management skills
   d. Helped me to develop organizational skills
   e. Helped me to make contacts with practicing engineers
   f. Helped me to become a better student
E. Culture

1. Please rate the degree to which industrial engineering faculty and staff exhibited each of the following. This rating should reflect all experiences including the best and worst experiences.
   a. Commitment to student’s education
   b. Respect towards students
   c. Commitment to holistic development including co-curricular and extra-curricular development.
   d. Support and helpfulness towards students

2. For the following statements about industrial engineering, please choose the response that best describes how strongly you agree or disagree with the statement.
   a. Cheating on exams was prevalent in courses
   b. More emphasis was placed on getting good grades than on learning
   c. Studying or working with other students on homework and assignments was encouraged
   d. Individual accomplishments were valued more than team accomplishments
   e. The competitive atmosphere was more negative than positive

F. Support Services

2. Based on your experience as a student, please rate the following services provided by the university.
   a. Library
   b. Availability of computer facilities
   c. Currency of computing facilities – hardware and software
   d. Registration process
   e. Career Planning
   f. Mentoring
   g. Financial Aid
   h. Campus bookstore
   i. Student health services
   j. Recreational services and extra-curricular activities
   k. Student organizations
G. About You

1. Is there anything else you would like to tell us about your undergraduate education? If so, please use the following space for that purpose or attach a separate sheet if you wish to write more.

Thank you! Your contribution to our assessment and improve efforts is greatly appreciated. Survey results will be posted to the program assessment web site. Please let us know if you would like to have access to a summary of the results by emailing the IE program secretary Rita.Sabe@sdsmt.edu. Please do not include any information on this survey.

Please return your questionnaire in the stamped envelope provided.