Baylor University

School of Engineering and Computer Science

Board of Advocates

Spring Meeting – April 4, 2003

HEB Training Center, Austin, Texas

Board members attending: Rob Auld, Bob Finner, Doug Holberg, Bill Mearse, Jeff Moody, Craig Nickell, Shawn Sedate, Brian Sheets, Steve Smith, Harold Spangler, Dean Swisher, Doug Verret, and Mike Yates.

Board members absent: Doug Aldrich, Ed Maggio, Ianne McCrea, Maury Rester, Darin Rice, Gary Stripling, and Trent Voigt

Others attending: Bill Booth, Steve Eisenbarth, Cindy Fry, Terri Garrett, Doug Henry, Dean Ben Kelley, Jim Farison, Don Gaitros, Leigh Ann Marshall, Greg Speegle, David Sturgill, Brian Thomas, and Cheryl Tucker

Welcome

Following a continental breakfast, Bill Mearse convened the meeting. Following Mr. Mearse's welcome, new member Jeff Moody introduced himself to the Board. After his introduction, Shawn Sedate addressed the Board with an informative overview of the HEB Grocery Company. Some of the slides from his presentation are attached to these meeting notes.

Dean's Report and Supplemental Presentations

Dean Kelley began the morning's business presentations by introducing the topics for the day's discussion: "Thinking outside the Books." His presentation outline and those of the additional faculty and staff presenters are attached to these meeting notes. Presenters included:

> **Dean Kelley** ....**Dean's Report**
> **Dr. Douglas V. Henry** ....**Vocations Perspectives and Great Texts Perspectives**
> **Ms. Terri L. Garrett** ....**Living-Learning Perspectives**
> **Ms. Cynthia C. Fry** ....**Student Organizations and Study Abroad Programs**
> **Dr. David Sturgill** ....**ACM ICPC Programming Team**
> **Mr. Bill Booth** ....**Computer Science Freshman Year Experience**
> **Mr. Brian Thomas** ....**Engineering Freshman Year Experience**

Summary: Topics within the focus of "Thinking outside the Books" included issues previously discussed by the board and related to identifying and implementing a system to maintain and strengthen undergraduate programs and institutionalizing programs to maintain and strengthen undergraduate programs in face of adding other capabilities. Presenters focused on examples of these issues within the context of their unique perspectives.

Luncheon Speaker

Following the morning presentations, the Board convened for lunch. Dr. Alvin H. Meyer, Associate Dean for Student Affairs, University of Texas College of Engineering, addressed the Board members with a

University of Texas perspective of issues such as student retention and co curricular activities provided to UT students. The outline of his presentation is attached to these meeting notes.

Afternoon Breakout Sessions

When lunch concluded, the Board members separated into two groups. One group, facilitated by Doug Henry and Bill Booth, discussed issues relating to vocation and profession of graduating ECS students. Board members who participated in this group were: Bob Finner, Doug Holberg, Brian Sheets, Steve Smith, Doug Verret.

This group developed the following outline (Brian Sheets wrote on our board):

> **Guiding Philosophies & Goals**
> 1. BU's current strengths
>   --synergy between departments
>   --faculty-student interaction
> 2. Integrity and ethics
>   --course work
>   --mentoring
>   --reinforce industry accepted standards of ethics
> 3. Diversity
>   --reinforce importance and value for students and for faculty
> 4. Work ethic
>   --work-life balance
> 5. Project/team work
>   --responsibilities
>   --leader
>   --team member
>   --participation in faculty research
> 6. Excellence in Engineering fundamentals
> 7. Inter-relationship with other business disciplines

Members in this group praised earlier presentations of the day. Doug Verret was very impressed with all going on with the school—that ideas were more than just discussion and were being implemented. Steve Smith agreed.

The group first discussed ways to compliment and preserve BU values. There needs to be synergy between departments unlike we heard from the luncheon speaker, where Computer Science has nothing to do with Engineering. The school still has intense faculty/student interaction and teaches high levels of ethics in the workplace. This question was asked of the board members by Jim Farison: What do you expect from a BU graduate that you would hire and would you expect more from a BU graduate than graduates from other school? Most members said that they would expect more from a BU graduate than others, after some discussion.

The group next discussed integrity and ethics. Board members asked if the school taught ethics courses. Bill Booth said that Computer Science has a course and the student receives one credit. Jim Farison said that ethics are taught in Engineering 1301, Jr. Design, and some other courses also deal with it. Dr. Farison also mentioned that we can teach ethics, but we can't make sure all students will embrace, and accept these standards. Doug Holberg mentioned that a student's morals are set before they hit academia

and that the school needs to show how this overlays to professional realms. Doug Verret said that Texas Instruments has an Ethics Department. He feels that ethics should: be imbedded in every day courses, not particularly taught in 1 course, and then implemented throughout several courses.

Mr. Verret then brought up the issue of diversity. He mentioned that at TI, they are trying to do more and more in this area. This is a good issue and a frustrating one. He would like to see more diversity in faculty, the student body, and even on the Advocate Board. Mr. Holberg then discussed that he likes diversity, but not just for the sake of diversity. He hires for the need. Example: he had a need for understanding with a Chinese issue and therefore, he hired a Chinese person with the background he needed for the problem. He went further to say that when he taught at UT, there were mostly Indians and Asians in the program. He posed the question "Where are the Caucasians?, and then suggested that perhaps we could do more within the school at the high school level to get up more interest. Steve Smith then stated that at Trinity they have a lot of Hispanics and they do bi-lingual programs, training, and teaching to help diversity issues. Doug Verret then discussed that we get greater range, thinking, and ideas when we increase diversity. The board members were very pleased with our Maastricht efforts as a good start in getting students to look at global issues for when they will be with a company. Diversity is a look at the real world. Doug Henry also mentioned good work being done by ECS in Belize, with Dr. Bradley's efforts in Africa, etc. He mentioned that these are not just one-time shots, but ongoing efforts, and that students truly do get awareness of differences and opinions.

The discussion returned to teaching work ethics as a very high priority. The group discussed using examples on ethics instead of as a teaching subject. The example they discussed was cheating. Use the issue of how bad cheating is in school and turn it into how cheating will effect life and work issues when they leave school. Encourage a life balance, from professional work ethic to personal spirituality.

The group next discussed project/group/team work. Doug Verret said that he is encouraged that we do a lot of this and mentioned the volume of team work in the business world. He stated that no engineer does the whole project from start to finish alone, but has to be a team player to get the project done. Doug Holberg mentioned an example within his company of 2 employees disagreeing over patent issues. He said that there gets to be a lot of misunderstandings when you enter egos into the picture. The discussion then turned to how a team leader should be and the need to help underclassmen much more. Working with a faculty member on research or projects would help.

The final issue the group discussed dealt with not losing the excellence in engineering fundamentals. Doug Verret expressed his concern of "short-cutting" fundamentals and how he was impressed of how the Engineering Department seemed to be still making fundamentals a priority.

The board did mention a question for future answer. They were interested to know if we are developing any relationships with the business school. They seemed to think this would be another area that would be very beneficial to students.

A different group, comprised of Bill Mearse, Jeff Moody, Craig Nickell, Shawn Sedate, Dean Swisher, Harold Spangler, Mike Yates, and facilitated by Terri Garrett and Brian Thomas, discussed student development. This group of Board members agreed that, while the Great Texts will affect students' critical thinking, flexibility, and well-roundedness, there was concern among the group about the practicality of incorporating Great Texts into the curriculum. Mike Yates pointed out that there is a "disconnect" between changing workplace demographics and the direction of Great Texts and whether Baylor is paying attention to the demographic evolution within Texas. Finally, Dean Swisher summarized the group's consensus: ECS graduates will be "more than top-notch engineers and scientists," with "cultural skills resulting in integrity" and who will be able to work with everyday problem solving.

Next, Shawn Sedate led the group in forming a list of "Thinking outside the Books" themes. These centered on character and ethical development and people skills. The people skills, according to the group, meant "street-smarts:" good instincts resulting in those who can and will lead and those who can follow leaders. The list of themes included leadership skills, building personal character and integrity, increasing practical skills, satisfaction ("having fun"), collaboration, diversity (of styles, opinions, ways of learning and communicating). The group voted on members' top three priority themes. The Board members asked how these themes could be woven into the curriculum, and, then, how they could be measured. There was brief discussion of ABET requirements, and copies of the attached "Criteria for Accrediting Engineering Programs" were distributed to the group (attached). The focus of the sheet was "Criterion 3: Program Outcomes and Assessment." As the group session ended, the Board members agreed that these themes add value not only to current student development, but as recruitment and retention tools. The Board members remained encouraging about these student development issues and felt the School of Engineering and Computer Science is moving in a positive direction.

Full Board Session

Following the group discussions and an afternoon break, the Board reconvened in a single group. Summaries of the group discussions were presented by Brian Sheets and Terri Garrett. Following those summaries, Bill Mearse addressed the Board. He recognized Doug Aldrich for his years of service to the Board of Advocates. Mr. Aldrich is a "charter member" of the ECS Board of Advocates, having joined under the leadership of Dean Jim Bargainer. Mr. Mearse then announced the date of the Fall Meeting of the Board of Advocates: October 3, 2003. Finally, Mr. Mearse thanked Shawn Sedate for providing the meeting facility to the Board.

Dean Kelley echoed thanks to Shawn Sedate. He also thanked the Board members for their thoughtful participation in this meeting. He said the School takes back many issues to further consider. Baylor faces a challenge to remain a Christian university while undertaking a research agenda.

Don Gaitros asked the Board members for Fall meeting focus ideas. Dean Swisher suggested that the Dean provide a "State of the Union" presentation reflecting where Dean Kelley thinks the School is in relation to the topics discussed during this meeting. Other suggested ideas included (1) faculty development and (2) the Student Forum. The Student Forum will take place on the evening following the Fall meeting as a time when junior, senior, and graduate students can meet with Board of Advocate members. Doug Holberg suggested that the Student Forum more specifically pair students with Board members so that discussions can be more meaningful for both groups.

Doug Verret asked about the Board member "initiative groups," which include Board members focusing on areas relating to internships, futuring, and funding. Dean Kelley responded that these groups still formally exist, although the content of the last meetings has not facilitated discussions by these groups. The groups do still need to work in those directions.

Following a closing prayer, the meeting adjourned at 4:10 p.m.