Present:

Tom Harris, President Vanderbilt University
Ken Lutchen, Treasurer Boston University
Rich Hart, Secretary Tulane University
David Reynolds Wright State University
Steve Schreiner Western New England College
Roger Barr Duke University
Gerard L. Coté Texas A&M
Sohi Rastegar Texas A&M / NSF
Edward O’Brien Mercer University
Richard Magin University of Illinois at Chicago
Richard Waugh University of Rochester
Frank Yin Washington University
Ozcan Ozdamar University of Miami
Jack Wasserman University of Tennessee Knoxville
Dave Meaney University of Pennsylvania
Wolf von Maltzahn Whitaker Foundation
Ernie Stokley University of Alabama@Birmingham
Lisa Milkowski Milwaukee School of Engineering
Paul Hale Louisiana Tech University
Jerry Saidel Case Western Reserve University
Vincent Turitto U Memphis/U Tenn Joint Program
Richard Foulds New Jersey Institute of Technology
Herbert Lipowsky Penn State
Steven Jones Louisiana Tech Universtiy
Rob Linsenmeier Northwestern University
Kris Ropella Marquette Universtiy
Jerome Schultz University of Pittsburgh
Marjolein van der Meulen Cornell University
Banu Onaral Drexel University
Francis (Sandy) Spelman University of Washington
Robert Arzbaecher Illinois Institute of Technology
Herb Voigt Boston University
Shu Chien University of California, San Diego

I. Introductions
All attendees introduced themselves. Tom Harris, President of the Council of Chairs pointed out that the same officers were still here, as the Council had voted to keep the current officers until elections are held at the Spring annual meeting in Washington.

II. Minutes
The minutes from the March 11, 1999 Council of Chairs (CoC) meeting were distributed and approved with one correction—item V. C.: the BMES public affairs committee plans a survey, not the EMBS committee as was incorrectly reported.
III. Interaction of the ERC in Bioengineering Education and the CoC

Tom Harris reported that a consortium of four programs—Vanderbilt, Northwestern, University of Texas, and the Harvard-MIT Health Sciences program—had received an ERC grant that would be developing educational modules for the “domains of BME.” Tom briefly described a typical education module: a domain committee would first analyze the knowledge in an area to provide a taxonomy; the taxonomy would be circulated for comment; a teaching module would be developed to cover material at a specified level of detail; an assessment portion would be developed to go with the module; and the module would be made available. No action was called for, but Tom distributed “A Proposal” to establish an Education Committee of the AIMBE Academic Council that may have the Council of Chairs as a curriculum committee subset. One of the objectives for the Education Committee would be to develop teaching modules as described above.

IV. EC2000 Report

Rob Linsenmeier, wearing a sign that said “I survived ABET 2000” described the recent EC2000 ABET visit at Northwestern. He emphasized two major differences from the previous assessment procedures:

1. Flexibility: Programs set their own program and course objectives and the outcome measures. This also means the review is more subjective, and it may take some time before “reviewers are calibrated.” The distinction between an item being described as a “concern” (relatively minor) or a “weakness” (relatively major) can be fuzzy.

2. Involvement of constituents: There is a need to have all the constituents involved: students, faculty, med. Schools, grad. Schools, industry, alumni, parents, etc. Faculty “buy-in” is critical, and each faculty member needs to be familiar with program objectives and with the a-k criteria.

In addition, there is still some “bean counting” in the process—25% of credit must be in math and science and 37% in engineering topics—and all the engineering departments need to agree on where courses will count. The Dean’s office needs to have a strong presence in the process.

In terms of outcome, the process needs to have quantifiable data, not just anecdotal evidence, and programs will need to “operationalize” fuzzy things. For example, don’t ask students “Did you learn professional ethics?” but instead ask, “Do you know not to sell body parts?”

Paul Hale commented that simply claiming that a program’s objectives were the a-k criteria would not be sufficient. ABET wants to see differentiation of the programs articulated in the program objectives, and they must be quantitatively measured. For an example, a program objective could be to prepare students to achieve their 1st career goal of: acceptance into graduate school; or acceptance into medical school; or employment, and then ask students to agree or disagree to the following: “BME has prepared me for my 1st career goal.” Answers could be with a scale of responses from “strongly agree, agree, neutral, disagree, strongly disagree.”

Then an objective might be to have 90% of the graduating class “agree” or “strongly agree” that the BME department prepared students for their 1st career goal. He also commented that having the information available for the ABET visitor—in any sort of order requested—is important. For example, it may be that a course book with objectives, syllabus, examples of student work is assembled, but the visitor may ask to see how ABET objective “c” is satisfied by the curriculum, across courses. Planning to have data available in different sequences is encouraged.

There was further discussion not reported here, and of note is that 2 of the 6 BME sessions at the ASEE meeting this summer will deal with ABET topics.

V. Treasurers Report

Ken Lutchen provided copies of the treasurer’s report (dated 10/6/99 with a balance of $13,358.10) that included the Dues payment list by members and the report from the prior year
(revised 10/26/98). The report was “accepted with thanks” unanimously. In addition, Ken distributed a mailing list of members, and asked for corrections and additions to be sent to him. He also distributed a “Management Services Agreement” with AIMBE to maintain a postal address for the Council, a banking account (with Council control retained), and scheduling of the annual meeting at the AIMBE annual event in Washington DC. The annual fee would be $250. These items were discussed with a generally favorable consensus. In addition, asking AIMBE to handle an annual invoicing service to collect dues (invoicing in August) was discussed, and although the annual fee would be expected to increase, the discussion was favorable for the idea. Ken will speak with Kevin O’Connor, Executive Director of AIMBE, about implementing these services.

V. Other business
There was a discussion of generating lists of undergraduate BME students that are eligible for graduate school. Implementation issues were discussed, the pros and cons of having students listed automatically and need for prior approval, or having students themselves sign up was discussed. The discussion led to the intent of having this discussed at the Academic Council meeting, as the target for such a list would be the membership of the Academic Council, although the generation of the list would come from the membership of the Council of Chairs.

With new hats to wear, the meeting adjourned at 7:30PM

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