

# TMS

## Minutes

Accreditation/UMC Committee Meeting

Monday, February 26, 2007

2:30 pm-4:00pm

Eagle Boardroom

Walt Disney World Swan Hotel

Orlando, Florida

### Attendees:

#### TMS

Chet Van Tyne  
Gill Bond  
Dennis Readey  
Jeff Fergus  
Tony Pengidore

#### University Materials Council

Ian Robertson  
\*David Clark  
\*Alex King  
  
\* via telephone

#### TMS Staff

Todd Osman  
Gail Miller  
Nate Natale

#### Guests

Steve Yalisove (MRS)

### I. Overview of Session

Todd Osman welcomed everyone and introductions were made. He also gave a brief overview of the agenda.

### II. ABET Commissioners and Board Members

Chet Van Tyne gave an overview of ABET's objectives. He also went over the basic structure of the organization as well as speaking about some of the myths that are often associated with ABET.

- More information on ABET can be found at [www.abet.org](http://www.abet.org)
- Dr. Van Tyne proposed that TMS Accreditation Committee Members could visit UMC member institutions to discuss ABET in depth with faculty members in an effort to dispel any and to continue an open dialogue amongst ABET evaluators and the UMC.
- It is felt by the ABET evaluators that the two groups are close to being on the same page and that this open dialogue can only bring the two together.

### **III. UMC Members**

The members voiced their concerns with evaluation process was discussed.

- UMC expressed concern with the consistency of the evaluators.
- The need for adequate participation & representation of evaluators from research universities was discussed.
- UMC would like to be involved in refresher training. ABET evaluators liked the idea of UMC input on this.
- UMC members were not aware that there can and should be communication between the evaluator and the institution. ABET evaluators expressed surprise at this fact. All agreed that this illustrated the need for an open dialogue.

### **IV. Discussion of Next Steps**

The following action items were proposed:

- ABET evaluators requested and received an invitation to the UMC meeting in Washington, D.C. (5/14-5/15) as an observer to answer questions and to provide facts. Jeff Fergus will attend on behalf of the Accreditation Committee.
- UMC will create a link on their website to the ABET website as an information source for its members.
- TMS proposed to work with UMC & ABET to archive information on the accreditation process through relevant web-based technologies. Potentially including downloads, Webcasts and a discussion board on MaterialsTechnology@TMS
- TMS expressed a willingness to provide materials specific evaluator training if ABET changes the training process.
- Accreditation Chair Van Tyne has drafted a letter (See Attachment) to ABET outlining TMS's, as well as the UMC's, concerns about the wording and descriptions of "safety" as well as "teaching effectiveness" in the criterion.
- The aforementioned actions are steps designed to facilitate an open exchange of information and ideas between the Accreditation Committee and UMC in order for the two organizations to develop a better understanding of the others mission.
- TMS will continue to coordinate efforts with NICE.

- MRS agreed to assist in recruiting evaluators
- There is a movement supported by civil engineers to accredit master-level programs. It was agreed that this would not be beneficial, not needed, for materials science and engineering. TMS and NICE will continue to appeal this. The UMC agreed to foster awareness of this amongst department heads and deans.
- Assessment of capstone designed materials courses
  - Different experiences of evaluators may determine if acceptable or not
  - Needs a consistent value (according to UMC)
- It was generally agreed that materials design is different than other design.

Attachment:

March 31, 2007

Accreditation Director  
ABET, Inc.  
111 Market Place, Suite 1050  
Baltimore, MD 21202-4012

Dear Accreditation Director:

At the TMS Accreditation Committee meeting on February 25, 2007, I was asked to convey to you comments on the proposed changes that were listed in the EAC 2007-2008 criteria.

Item 1: The addition of the words "effectiveness and" into criterion 5. The TMS committee is opposed to this change for two reasons. The first reason is that these words are redundant. If the students of the program have achieved the program outcomes then the educational process has been effective. There is no need to have separate measures for teaching effectiveness. In the spirit of EC2000 where the emphasis is on students and what students can learn, adding these words into the criteria may cause a refocus on faculty and a lesser emphasis on students. The second reason for our objection is that the demonstration of teaching effectiveness on the programs will become burdensome. Again the demonstration of student outcomes is appropriate and provides a measure as to the effectiveness of the program as a whole. There is no need to have additional measures specifically on just the teaching effectiveness part of the program.

Item 2: The addition of the word "safely" which splits the infinitive "to accomplish" in criterion 6. TMS committee is very concerned about 1) the liability issues that may arise, 2) the training of evaluators to become safety experts and 3) the distinction between safe facilities and safe practices.

At present, the evaluators are able to cite unsafe facilities or unsafe equipment as a shortcoming, and many reports have such issues indicated. Citing an unsafe situation is not the same as evaluating a facility for safety. By not citing any safety issues, the new wording in the criteria implicitly implies that the program is conducting its operation safely. Many on the TMS committee members are concerned about the liability associated with this implicit approval of a program's safety practices. Will the ABET program evaluators and team chairs be covered by a ABET insurance policy if a lawsuit were to be initiated over this implicit approval of safe conditions?

With the new wording the evaluators will now need training in how a program meets the appropriate standard for safety in its operations. How will this training be supplied? Presently, without the word "safely" in the criteria, unsafe situations can be cited but the

evaluator does not need to assess whether the program has achieved a minimally acceptable level of safety.

The addition of the word "safely" into criterion 6 on facilities implies that the facilities need to be safe. There is also the issue of practices, which should also be performed safely. For example, are evaluators going to be required to also assess the practices and procedures used in performing lab experiments?

Because of these issues the TMS committee believes that it is not be wise to add the word "safely", explicitly into the criteria.

TMS committee has no opinion on the proposed changes to 1) the General Criteria for the Masters Level Program, 2) the Civil Engineering Program Criterion and 3) the Mechanical Engineering Program Criteria.

Sincerely yours,

Chester J. Van Tyne  
EAC Commissioner  
TMS Accreditation Committee Chair