

Minutes of the University Materials Council Meeting Agenda – Spring 2001
May 5, Georgetown University Conference Center, Washington, DC

Minutes prepared by:

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Attendees: 1. Ashok Saxena	Georgia Tech
2. Stephen Danforth	Rutgers
3. Bob Bayuzick	Vanderbilt
5. Henry Du	Stevens Inst of Tech
6. John Rabolt	U. Delaware
7. Sam Allen (for S Suresh)	MIT
8. Gary Michal	Case Western
9. Alan Cramb	CMU
10. Alex King	Purdue
12. Ron Gordon	Alfred
13. Cal White	Michigan Tech
14. Aris Christou	U. Maryland
15. Hugo Lopez	U. Wisconsin-Madison
16. Takeshi Egami	U. Penn
17. David Duquette	RPI
18. WA Jesser	U. Virginia
19. Katherine Faber	Northwestern
20. Bob Snyder	Ohio State
21. Reza Abbaschian	U. Florida
22. Mufit Akinc	Iowa State University
23. Kristen Constant	Iowa State University
24. DR Paul	U. Texas
25. John Weaver	U. Illinois-Urbana Champaign

Visitors:

Tim Fitzsimmons

DoE

Craig Hartley

AFOSR

Tom Weber

NSF

Steve Wax

DARPA

AGENDA

7:45 – 8:15 AM	Continental Breakfast	
8:15 – 8:30	Welcome & Introductions	
8:30 – 9:00	Overview of UMC	A. Saxena
	Aims and Scope, Membership and dues, Financial status, MSE Surveys, Website maintenance	
9:00 – 12:00	Panel Discussion on Funding Trends for Materials Research:	
	9:00 - 9:25 :	Dr. Steve Wax , DARPA
	9:25 - 9:50 :	Dr. Iran Thomas , DoE
	9:50 -10:15:	Dr. Craig Hartley , AFOSR
	10:15- 10:30:	Break
	10:30-10:55:	Dr. Tom Weber , NSF
	10:55-11:20:	ONR (Speaker to be confirmed)
	11:20- 12:00	Discussion
12:00 – 1:00 PM	Lunch	
1:00 – 1:30 PM	Discussion on trends in employment opportunities for Ph.D. graduates and the impact on MSE curriculum	Don Paul
1:30 – 2:00 PM	Discussion on how do departments support central facilities	Kathy Faber
2:00 – 2:30 PM	Discussion on faculty and staff evaluations	Bob Snyder
2:30 – 2:45 PM	Break	
2:45 – 3:30 PM	Liaison reports and discussion	
	- FMS	Aris Christou
	- NMAB	Henry Rack/ A.Saxena
	- ABET	Slade Cargill
	- IUMRS	A. Saxena
3:30 – 4:00	Election of officers for 2001-02 term and discussion of future meetings	Kathy Faber
4:00 PM	Adjourn	

1. The minutes of the Fall 2000 meeting were approved.
2. Ashok reviewed the functions of the UMC. There are 89 MSE programs listed in ASM with 46 departments. Dues for the UMC need to be billed each year in the spring by the Chair. Georgia Tech has run the benchmarking survey for the past two years – the results are on the web. Future topics should include Curriculum, faculty evaluation, start-up packages and supply of graduate students.
3. Steve Wax from DARPA described his \$2 billion program aimed at radical new innovative ideas – high risk, high pay off technology. Priorities are protection from Bio and Info attacks. They have a serious need to filter Bio-agents from water. Themes: nano control of microstructure, computational materials science and biomimetics.

4. Iran Thomas – DOE. About ½ of the BES budget goes to universities and the budget has been flat for the last 10 years. There is \$36 million of funding for nanotech in the current budget with ½ going to the National Labs. DOE uses \$9 million to fund 82 grants in MSE. Last year 226 proposals were submitted with 55 funded. 19 old grants were terminated but only six new projects were funded so the odds run about 1 in 40.

5. Craig Hartley – AFOSR. In metals their priorities are Propulsion Materials and Structural Airframe Materials. \$2.5 million for 20 to 25 projects in 2001. 33% internal, 66% external. Joan Fuller is the new person handling ceramics. He has a strong emphasis on Computational Materials Design in order to reduce expensive experimentation.

6. Tom Weber – NSF. New staff are: Lynnette Madsen in ceramics and Cahil Murphy in metals. With the overriding theme of “Education for the Future” there are three research themes 1. Bio-complexity in the environment, 2. Information technology and 3. Nanoscale science and engineering. There is \$200 million designated for the K-12 education program and so the rest of the budget will be down by about 2%. A new MRSEC competition is active.

7. Don Paul of U. T Austin led a discussion where our PhD graduates go. Most departments saw the electronic industries move into the lead as employers and driving the salary average into the 80s. Second most common employers were traditional industries. Third were consulting companies and the fourth was a new player: start-up companies.

8. Kathy Faber led a discussion on Central Facilities Support. There seemed to be no common thread among the various procedures used by the departments present.

9. Aris Cristou attended the FMS Board Meeting on February 1. FMS officially joined ASTRA - the materials lobbying group. FMS is planning its biennial meeting and would like to focus on "Critical Issues in Materials Education". After a lengthy discussion, it was concluded that UMC should take the lead in defining the program. (Slade Cargill has already volunteered to do this.) FMS could contribute with presentations on the role of professional societies to enhance outreach and public awareness. Another recommendation was made that the FMS biennial meeting be shortened from its 2 1/2 day format.

10. NMAB (Saxena)

The National Materials Advisory Board will sponsor a forum on Materials and Society. The forum is scheduled for March 27-28, 2002. UMC has been asked for input on speakers.

11. IUMRS (Saxena)

Saxena reported that UMC provides the column on education for the IUMRS publication and will continue to do.

12. Election of Officers for 2001-2002 (Faber)

Faber presented the slate of officers for 2001-2001. Second Vice-Chair and First Vice-Chair move up to First Vice-Chair and Chair, respectively. The executive committee was elected for a two year term.

University Materials Council 2001-2002

Chair: Katherine Faber, Northwestern University

First Vice Chair: Robert Snyder, Ohio State University

Second Vice Chair: To be elected

Executive Committee: Ronald Gordon, Alfred University

Don Paul, University of Texas, Austin

Ashok Saxena, GeorgiaTech

Report from 2001-2002 Nominating Committee: A. Cristou, K. Faber (chair), A. King

Second Vice Chair: Slade Cargill, Lehigh

The floor was opened for other nominations. Hearing none, Slade Cargill was elected Second Vice Chair by acclimation.

The UMC Fall Meeting will be held Sunday, November 4, 2001 in Indianapolis, IN in conjunction with the TMS and ASM Materials Solutions Meetings. Possible topics for the meeting were suggested. They included best practices in undergraduate recruiting and retention, curriculum, outcome assessment for ABET, the role of professional accreditation and 3/2 BS/MS programs.

The meeting was adjourned at 4:00 PM.