Day 1 – Sept. 9

7:15 a.m.  Breakfast/Pick up registration packets

8:15 a.m.  Welcome
Moderator: Susan Sinnott (Penn State)
Presenter: Dean Lee Kump, Penn State College of Earth and Mineral Sciences

8:30 a.m.  Overview of workshop and objectives: Susan Sinnott (Penn State)

9:00 a.m.  Perspective within a rapidly growing student body: David Bahr (Purdue)

9:30 a.m.  Perspective from a growing MatSE department: Amy Moll (Boise State)

10:00 a.m.  Break

10:15 a.m.  Materials science and engineering—it’s unique: Dean Janet Callahan (Michigan Technological University)

10:45 a.m.  Panel on industry perspective
Discussion leader: Kathy Wahl (Naval Research Laboratory)
Panel members: Dawne Moffatt-Fairbanks (Corning), Edward Sobota (TSI Titanium), Erik Lord (Blue Origin), and Lazo Trkulja (ArcelorMittal USA)

12:00 p.m.  Lunch

1:00 p.m.  Impact on graduate recruiting and enrollment
Moderator: Angus Rockett
Presenter: Isabel Lloyd (Maryland):

1:30 p.m.  Managing M.S. program populations: Michele Manuel (Florida)

2:00 p.m.  Materials science and engineering and computing education: Michael Falk (Johns Hopkins)

2:30 p.m.  Break

3:00 p.m.  Integrating student and instructor perspectives to improve material retention: Matthew Begley and Victoria Christensen (UCSB)

3:30 p.m.  Engaging and exciting next generation leaders: Scott McCormack (UIUC/PCSA ACerS)

4:00 p.m.  Panel on national laboratory perspective
Discussion leader: Dawne Moffatt-Fairbanks (Corning)
Kathy Wahl (Naval Research Laboratory), James Warren (NIST), Charles Ward (AFRL), and Peter Green (NREL)

5:15 p.m.  Adjourn

5:30 p.m.  Reception—Steidle Atrium
Materials Science Undergraduate Education Conference 2019
“The Enrollment Floodgates Are Open – Best Practices in Materials Science and Engineering Undergraduate Education for Rising Enrollments”
Penn State HUB-Roberson Center, University Park
September 9-11, 2019

6:00 p.m. Optional tours of Steidle Building
6:30 p.m. Dinner (on your own)

Day 2 – Sept. 10

7:15 a.m. Breakfast

8:00 a.m. Senior design in increasingly large materials programs
Moderator: R. Allen Kimel (Penn State)
Presenter: Angus Rockett (Colorado School of Mines)

8:30 a.m. Managing laboratories in times of enrollment growth: Jessica TerBush (UIUC)

9:00 a.m. Integrating communication and lab work into a growing undergraduate materials science and education curriculum: Thomas Staley and Christine Burgoyne (Virginia Tech)

9:30 a.m. GT effective team dynamics initiative: changing the way teams work: Mary Lynn Realff (Georgia Tech)

10:00 a.m. Break

10:15 a.m. The Materials Research Society—Your partner for career advancement: Michael Fitzsimmons (MRS)

10:45 a.m. Panel on the government agency perspective:
Discussion leader: Michael Williams (Clark Atlanta)
Panel members: Lynnette Madsen (NSF), Julie Christodoulou (ONR), and Linda Horton (DOE)

12:00 p.m. Lunch

1:00 p.m. Preparing materials science and education students for the real world:
Moderator: Hatem Zurob (McMaster)
Presenter: Vanessa Chan (UPenn)

1:30 p.m. African American participation in STEM: The leaky pipeline: Michael Williams (Clark Atlanta)

2:00 p.m. Panel on diversity, inclusion, access and affordability:
Discussion leader: David Bahr (Purdue)
Panel members: R. Allen Kimel (Penn State), Viola Acoff (University of Alabama), and Veda Chandler (Clark Atlanta)

3:15 p.m. Break

3:30 p.m. Connecting materials science and engineering undergraduate education with other majors
Moderator: Hatem Zurob (McMaster)
Presenter: Marcus Young (North Texas)

4:00 p.m. Incorporating sustainability into materials science and engineering curricula: Julie Schoenung (UC-Irvine)
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4:30 p.m. TBD: R. Allen Kimel
5:00 p.m. The materials innovation and learning laboratory: A new paradigm in peer-to-peer experimental learning for materials science: Mark Losego (Georgia Tech)
5:30 p.m. Adjourn
5:45 p.m. Reception in the Millennium Science Complex
6:15 p.m. Optional tours of Millennium Science Complex
6:45 p.m. The Materials Research Institute: Daring new discoveries across scientific frontiers: Clive Randall (Penn State)
7:30 p.m. Dinner (on your own)

Day 3 – Sept. 11

7:15 AM Breakfast
8:00 AM Perspective from private institutions
Moderator: Ibrahim Karaman (Texas A&M)
Presenter: Pawel Keblinski (RPI)

8:30 AM Impact of the evolution of specialized research topics in materials science and engineering on the undergraduate curriculum over the coming decade: Orla Wilson (Johns Hopkins)
9:00 AM Outlook from Canada: Hatem Zurob (McMaster)
9:30 AM How Missouri S&T is managing our ABET accredited B.S. programs in Ceramic Engineering and Metallurgical Engineering, and where our students are going: Gregory Hilmas (Missouri University of Science & Technology)

10:00 AM Break
10:15 AM Challenges and rewards associated with starting a new materials science and engineering department
Moderator: TBD
Presenter: Ibrahim Karaman (Texas A&M)

10:45 AM Developing an ABET accredited B.S. degree in materials science and engineering at the University of Virginia: J.R. Scully and J.M. Fitz-Gerald (University of Virginia)

11:30 AM Summary and next steps: Susan Sinnott (Penn State)
11:45 AM Adjourn