Meeting Goals:
- Discuss the mission of the roundtable
- Get to know each other (and discuss any necessary additions to our collective expertise)
- Learn about the current state of undergraduate STEM education and on-going reform efforts
- Start to think about future strategies for improving undergraduate STEM education
- Consider the role of the roundtable based on our understanding of previous and concurrent efforts

DAY 1: Wednesday, December 20, 2017

4:00 pm  Welcome
Heidi Schweingruber and Tom Rudin, The National Academies of Sciences, Engineering, and Medicine

4:10 pm  Overview of the Meeting
Ann Austin and Mark Rosenberg, Co-Chairs

4:20 pm  Introductions and Reflections on Change in Undergraduate STEM Education
- Members introduce themselves and identify one change they want to see in undergraduate STEM education.

5:10 pm  Presentations on Recent Efforts in Undergraduate STEM Education
- Indicators for Monitoring Undergraduate STEM Education
  Mark Rosenberg, Florida International University
- 5-Year Status Report on AAU Undergraduate STEM Initiative
  Emily Miller, Association of American Universities
- Barriers and Opportunities for 2-Year and 4-Year STEM Degrees
  Heidi Schweingruber, The National Academies of Sciences, Engineering, and Medicine

5:45 pm  Discussion of the Future of Undergraduate STEM Education

6:15 pm  Dinner (West Court of the NAS Building)

7:15 pm  The Context for the Roundtable
• What are key drivers compelling us to change undergraduate STEM education? Consider the national and international context, now and what it might look like 20-30 years in the future.

7:15 pm Discussion in small working groups
7:45 pm Reporting-out from working groups

8:15 pm Adjourn

DAY 2: Thursday, December 21, 2017

8:00 am Breakfast Available (East Court of the NAS Building)
8:30 am Welcome

8:45 am Mapping the Landscape: Initiatives, Stakeholders, and Accomplishments
  • What initiatives and efforts have contributed to systemic change in STEM undergraduate education?
  • Who are the key stakeholders contributing to or leading the change efforts?
  • What worked and what did not work?
  • What are the key accomplishments?

8:45 am Discussion in small working groups
9:30 am Reporting-out from working groups
9:45 am Discussion of priorities

10:00 am Break

10:15 am Fostering Systemic Change: Identifying Gaps, Issues, and Challenges
  • What gaps, issues, and challenges are particularly important to address in order to move forward?
  • What are the three most important next steps or major questions to address in order to foster systemic change in undergraduate STEM education?

10:15 am Discussion in small working groups
11:00 am Reporting-out from working groups
11:40 am  Opportunities and Outcomes of Roundtables  
Kerry Brenner, The National Academies of Sciences, Engineering, and Medicine

12:00 pm  Lunch (East Court of the NAS Building)

1:00 pm  Lessons about Change  
- What are some key lessons learned about how to foster systemic change in undergraduate STEM education?

2:00 pm  Priorities for Action  
- Which opportunities are the highest priorities?  
- Which opportunities are best suited for action by the roundtable?  
- Which could be addressed in the roundtable’s workshops?  
- Which need more discussion to clarify goals, approaches and priorities?

2:45 pm  Wrapping up and Looking Forward:  
Revisit Roundtable Mission and Discuss how to Achieve It  
- Is additional expertise needed?  
- How can we sustain momentum between meetings?  
- What mechanisms should be used to facilitate these conversations?

3:00 pm  Adjourn