

# Materials Science and Engineering Education: Now and in the Future

**“Curriculum revision should seek novel ways to include biology, business, project management leadership, entrepreneurship, and international experiences.”**

**About 113 B.S. programs in MATSE in the U.S.; only 2 B.S. programs in Ceramics**

## NSF 2008

- **Only large depts can support full breadth of materials science and engineering (including polymers)**
- **Most of these depts have 6-8 ‘ceramics’ faculty**
- **Most ‘ceramics’ faculty graduated with a PhD on a ceramics related topic and school**

**Messing, G.L., Interagency Coordinating Committee on Ceramics Research & Development Workshop Institute for Defense Analyses, Washington DC, Feb. 2014**

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# Engaging the Next Generation of Ceramics and Materials Engineers

- Engagement must be consistent and sustained
- Use the engagement opportunity to provide “soft skills” development
  - Resume/interviewing workshops
  - Team building activities
  - Discussion panels with “recent” graduates, etc.
- Multifaceted engagement
  - Capstone/senior thesis sponsors
  - Field trips
  - Sponsor department/student activities
  - Scholarships/internships/co-ops