

**APS COMMITTEE ANNUAL REPORT
2015**

COMMITTEE:

EDUCATION

COMMITTEE CHARGE

The membership of the Committee on Education consists of twelve members. Nine members are appointed by the President-Elect to staggered three-year terms while the Chair, Past-Chair and Chair-Elect from the Forum on Education serves as statutory members of the Committee. The President-Elect appoints the Chairperson from among the members. The Committee is responsible for advising the Society on matters pertaining to physics education at all levels including K-12, undergraduate, graduate, and beyond. The committee implements programs, suggests studies, and provides oversight for programs that improve physics learning.

CURRENT COMMITTEE MEMBERS:

Chair: **Carlos A Bertulani**
Texas A&M Univ, Commerce

Member: **Lynwood Randolph**
Les Associates, Inc

Member: **Courtney Lannert**
Smith College

Member: **Maria C Simani**
Univ of California - Riverside

Member: **Cindy Beth Schwarz**
Vassar College

Member: **Timothy F Slater**
Univ of Wyoming

Member: **Juan Diaz**
Mount Aloysius College

FED Past Chair to COE: **Michael H Fauerbach**
Florida Gulf Coast Univ

Member: **Beth A Thacker**
Texas Tech Univ

FED Chair to COE: **Randall Knight**
Cal Poly - San Luis Obispo

Member: **Ty James Prosa**
Imago Scientific

FED Chair-Elect to COE: **Tim J Stelzer**
Univ of Illinois - Urbana

SUMMARY OF MEETINGS AND ACTIVITIES IN 2015:

The committee's primary focus this year was a proposal on Best Practices for Undergraduate Physics Programs (BPUPP). Some STEM disciplines have a history of certification or accreditation of degree programs, administered by professional organizations. In physics, individual colleges and universities have assumed independent responsibility for the content of their undergraduate degree programs. A guide for the self-assessment of undergraduate physics programs is needed that is founded on documented best practices and linked to measurable outcomes. The guide should provide a physics-community-based resource to assist programs in developing a culture of continuous self-improvement, in keeping with their individual mission, context, and institutional type. It should help departments assess their curricula, pedagogy, advising, mentoring, recruitment and retention, research and internship opportunities, diversity, scientific skill development, career/workforce preparation, staffing, resources, and faculty professional development. The COE has created a task force to prepare a plan for ongoing review and improvement of this guide and taking it to the APS council.

The committee also completed these actions:

- One face-to-face meeting on March 28 at the APS headquarters, College Park, MD and another on September 28 in Phoenix, Arizona. One winter teleconference meeting on January 15, and another in the summer on July 13. COE subcommittees have carried out many independent conference calls.
- Selected 2015 winners of the Award for Improving Undergraduate Physics Education
- Drafted a comprehensive document on the COE priorities
- Endorsed initiatives from the Education Policy Group and the Panel of Public Affairs (POPA)
- Conducted an extensive dialogue with Monica Plisch regarding the proposal for renewal of the PhysTEC program, including (a) engagement and support of the coalition to help double the number of teachers educated at coalition membership institutions (state-based workshops, capacity building grants, marketing kit), (b) and to establish regional hubs
- Worked on initiatives for the further development of the APS Bridge Program, including future conferences and the creation of mini-grants

The Education Policy Group had these additional accomplishments:

- Worked on the reauthorization of the No-Child Left Behind policy
- Participated in hiring new APS/AIP funded US Department of Education Policy Fellow
- Endorsed the Panel of Public Affairs (POPA) guide to Physics GRE tests, and asked the COE to work on a document for the purpose
- Worked on the text of the reauthorization of the Elementary and Secondary Education Act (ESEA)
- Initiated interactions with the American Society for Engineering Education (ASEE)
- Brought to the APS/Physics Policy Committee (PPC) the need to react to new attempts of institutions in developing engineering programs without physics courses

The committee is working on new actions:

- Developing a feedback to institutions in connection to the COE Award for Improving Undergraduate Physics Education
- Participation of some of its members on the BPUPP task force and the consideration by COE of its progress and recommendations
- Promoting/advertising educational issues via the FEd newsletter, in the Education Corner of APS News, and the Back Page article in the APS News.