APS COMMITTEE ANNUAL REPORT
2014

COMMITTEE:

EDUCATION

COMMITTEE CHARGE

The membership of the Committee on Education shall consist of twelve members. Nine members will be appointed by the President-Elect to staggered three-year terms while the Chair, Past-Chair and Chair-Elect from the Forum on Education shall serve as statutory members of the Committee. The President-Elect shall appoint the Chairperson from among the members. The Committee shall be responsible for activities in the area of physics education designated to it by the Executive Board or the Council. It shall report periodically to the President, the Executive Board and the Council on physics education. It may suggest and supervise studies and programs to improve the cooperation between the educational community and other parts of the physics community.

CURRENT COMMITTEE MEMBERS:

Chair: **Paul Davis Cottle**
Florida State Univ

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

Member: **David A Craig**
Le Moyne Coll

Member: **Juan Diaz**
Mount Aloysius College

Member: **Alan WP Poon**
Lawrence Berkeley Natl Lab

Member: **Ty James Prosa**
Imago Scientific

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

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

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

Member: **R Steven Turley**
Brigham Young Univ - Provo

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

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

SUMMARY OF MEETINGS AND ACTIVITIES IN 2014:

The committee's primary focus this year was identifying the highest priority issues facing the community of physics educators. The conversation and revision process will continue into 2015, but as of the completion of the committee's September 27 meeting in Minneapolis, the tentative list was this (not in priority order):

1. Increase the number of undergraduate physics majors to feed the nation's need for highly trained and broadly capable professionals.
2. Increase and support the number of well-prepared high school physics teachers.
3. Substantially increase the fraction of women and underrepresented minorities earning undergraduate and graduate physics degrees.
4. Improve mentoring of and professional development for faculty.
5. Provide undergraduate and graduate physics students with the mentoring and skills to compete for a wide range of careers.
6. Provide the opportunity for all students to take at least one year of high-quality high school physics.
7. Promote adoption of evidence-based practices in physics pedagogy in high school and college physics classrooms.
8. Inform and educate K-12 students and teachers, parents, employers, and policy makers about the benefits of an education in physics.

The committee also completed these actions:

- Selected 2014 winners of the Award for Improving Undergraduate Physics Education
- Drafted a response to a questionnaire from the Joint Task Force on Undergraduate Physics Programs convened by the APS and AAPT
- Endorsed a POPA study on the obstacles to recruiting precollege teachers in chemistry, math, physics and computer science
- Conducted an extensive dialogue with Monica Plisch regarding the PhysTEC 3.0 proposal
- Discussed the possibility of an APS-conducted Professional Standards process for undergraduate physics programs.

The Committee on Education Policy Group had these additional accomplishments:

- Organized a congressional effort to allow US Department of Education Title II funds to be used for pre-service science teacher education in addition to the customary use for professional development for in-service teachers
- Developed a plan for the POPA science teacher recruiting study
- Considered how to respond to the national effort to promote computer science and engineering education in the nation's high schools
- Reviewed and advanced the society's core education policy priorities, which are to provide every high school student access to a high quality one-year high school physics course, and to promote widespread use of evidence-based education practices throughout the undergraduate curriculum.