



CURPA NEWS



Newsletter of the Council on Undergraduate Research Physics and Astronomy Division

Fall 2014

Message from the Chair

I hope everyone had an enjoyable, fun-filled summer. As we begin the exciting transition into autumn, I would like to welcome you to another edition of the CURPA division newsletter. As always, I would like to thank Nadine Barlow for taking the time and effort to put our division's newsletter together. If you have something to submit to our winter newsletter, please contact Nadine at Nadine.Barlow@nau.edu. We are always looking for contributions from within the division, including articles, job announcements, promotions, and awards.

This year there are a number of events CUR will either be hosting or participating in. At the end of November, the CURPA division will have a presence at the Materials Research Society's fall meeting in Boston. Eastern Washington University will host the National Conference on Undergraduate Research (NCUR) in April 2015. As in past years, we will make several NCUR travel awards available for students of CURPA members. Also in April 2015, CUR will host its annual Posters on the Hill event in Washington DC. Throughout the year, CUR offers a variety of institutes and workshops for faculty and administrators. An example of one such institute is the "Beginning a Research Program in the Natural Sciences at a Predominantly Undergraduate Institution"

Along with information about some of the above items, you can read more about the CURPA division's REU program in this newsletter. The seven REU participants kept councilors quite busy over the summer and we are looking forward to our second year

of the program. We will provide some information on each of our 2014 REU participants throughout this year's newsletters.

There are also two award programs I would like to bring to your attention. The CUR Fellows committee is accepting nominations for the selection of the 2016 CUR Fellows. Additionally, the CUR/Goldwater Scholars Faculty Mentor award will continue into its second year and they are also currently accepting nominations. You can find more information about these programs, including how to nominate a colleague, within the newsletter and on the CUR website.

Two other CURPA division services that may be of interest to you include our department program review and faculty mentoring programs. There is a variety of valuable expertise at CUR that you or your department may want to explore further. For more information about departmental program reviews please contact Chris Hughes (hugheswc@jmu.edu) while for more information about our faculty mentoring program, please contact Beth Cunningham (bcunningham@aapt.org).

Finally, are you interested in getting more involved in CUR? If so, there are several ways:

1. Become a reviewer for NCUR. We are always looking for individuals to review abstracts in the areas of astronomy, physics, and/or engineering. If you are interested, please contact Sudha at gsudhakaran@uwlax.edu.
2. Become a reviewer for Posters on the Hill. Along with the review of physics

and/or astronomy abstracts, we are always looking for individuals to review engineering abstracts. If you are interested, please contact me at jacksonm@cwu.edu.

3. Run to become a councilor for the CURPA division. Councilors serve three-year terms and are expected to travel to the annual business meeting held each June. There are a number of additional professional development opportunities available to councilors through both formal and informal mechanisms. My ability to advocate for undergraduate research has certainly been enhanced due to the experiences I have had as a councilor. Although many of us have very limited time and funds for travel, please consider the developmental opportunities that serving as a councilor has to offer.

I wish you the best of luck in your upcoming activities. Please feel free to contact me if you have questions or suggestions.

Michael Jackson
 Chair, CUR Division of Physics and Astronomy
 Central Washington University
jacksonm@cwu.edu

AAPT-APS Joint Task Force on Undergraduate Physics Programs

The past decade has shown a strong national interest in enhancing Science, Technology, Engineering, and Mathematics (STEM) education, particularly undergraduate STEM education with obvious importance for the development of the future STEM workforce and for the many careers that need STEM skills. Many of these concerns are articulated in the President's Council of Advisors on Science and Technology (PCAST) report *Engage to Excel* [1]. The cover letter to the President (p. C7) states that "PCAST found that economic forecasts point to a need for

producing, over the next decade, approximately 1 million more college graduates in STEM fields than expected under current assumptions. Fewer than 40% of students who enter college intending to major in a STEM field complete a STEM degree. Merely increasing the retention of STEM majors from 40% to 50% would generate three-quarters of the targeted 1 million additional STEM degrees over the next decade." In formulating its recommendations for hitting this target, PCAST states three "imperatives" that underlie its recommendations [page ii]:

- Improve the first two years of STEM education in college.
- Provide all students with the tools to excel.
- Diversify pathways to STEM degrees.

A pre-requisite for implementing the recommendations from the PCAST report is a set of discipline-specific guidelines for what constitutes effective undergraduate STEM programs. Many STEM disciplines have begun to re-examine their undergraduate programs, in the process articulating core content and core competencies, which then serve to guide the development of effective undergraduate curricula. In 2003, the National Task Force on Undergraduate Physics released its report *Strategic Programs for Innovations in Undergraduate Physics (SPIN-UP)* [2], which provided 21 case studies of "thriving" undergraduate physics programs and an analysis of the common features of those programs. By design, the SPIN-UP report focused on recruitment and retention strategies and did not consider details of the undergraduate physics curriculum. The life sciences community came together in 2009 to re-examine the role and structure of undergraduate biology education. The result was the report *Vision and Change in Undergraduate Biology Education* [3]. The National Research Council report on

Discipline-Based Education Research (DBER) [4] provides an extensive overview of what has been learned from education research about what constitutes effective teaching and learning in the STEM disciplines. Undergraduate physics education was directly addressed in the report *Adapting to a Changing World—Challenges and Opportunities in Undergraduate Physics Education* [5], produced by the National Research Council's Committee on Undergraduate Physics Education Research and Implementation. Although the report provides a general overview of the current state of undergraduate physics education, its emphasis is on how physics education research can promote more effective student learning.

The physics community has been active over the past 15 years in finding ways to increase the number of students earning bachelor's degrees in physics and enhancing the pedagogical effectiveness of physics teaching based on extensive work in physics education research [4]. However, it has been over 50 years since the physics community collectively examined the content and structure of undergraduate physics programs through the work of the NSF-funded Commission on College Physics.

In 2012, a group of physics faculty members, motivated in part by requests from physics departments for curricular content guidelines, began rethinking curricular and student professional development issues. As a result, the American Association of Physics Teachers (AAPT) formed the Undergraduate Curriculum Task Force (UCTF). Prof. Ernest Behringer of Eastern Michigan University was appointed chair, and about 25 individuals started to consider a broad set of questions related to the undergraduate curriculum.

As a result of several focused topical discussion sessions organized by the UCTF

at AAPT national meetings, it became apparent that the physics community has several concerns about undergraduate physics programs:

1. The physics content of most undergraduate physics programs has changed little in the past 40 years, in spite of many advances in physics itself and the widespread recognition that the canonical undergraduate physics curriculum often fails to engage students who might otherwise benefit from the study of physics.
2. Even with an 86% increase in the number of physics bachelor's degrees awarded over the past decade or so, the fraction of degrees awarded to women and to students from other groups underrepresented in physics has remained essentially unchanged (within statistical uncertainty).
3. While most undergraduate physics programs seem to do a reasonable job preparing students for graduate work in physics and closely related fields, survey evidence indicates that those programs generally do not explicitly help students develop professional skills that are particularly important for jobs in business and industry. From the American Institute of Physics (AIP) Statistical Research Division we know that on average 60% of physics bachelor's degree recipients go on to graduate programs (35% in physics or astronomy, 25% in other fields) while 40% go directly into the workforce.

After many discussions among the UCTF, the AAPT, the American Physical Society (APS) Committee on Education, and APS Executive Board, it became apparent that developing recommendations for undergraduate physics programs should be undertaken as a joint effort between APS and AAPT. The two organizations then developed a charge for a Joint Task Force on

Undergraduate Physics Programs (J-TUPP) to focus on undergraduate physics programs, primarily at four-year colleges and universities. The charge states that J-TUPP should prepare a report that will engage and inform physicists in answering the question: *What skills and knowledge should the next generation of undergraduate physics degree holders possess to be well prepared for a diverse set of careers?*

The report should provide guidance for physicists considering revising the undergraduate curriculum to improve the education of a diverse student population. The report should include recommendations on content, pedagogy, professional skills, and student engagement. Wherever possible, the report should describe documentable student outcomes.

We conclude that now is the ideal time for the physics community to undertake such a re-examination and to aim for a set of recommendations and guidelines that will shape undergraduate physics education in the decades to come. The initial face-to-face meeting of J-TUPP is scheduled for mid-November 2014. One of the primary tasks for the November 2014 meeting is the definition of the scope of the J-TUPP efforts needed to fulfill its charge. We anticipate that J-TUPP will complete its report by the end of 2016.

An integral part of the task force's deliberations must include a consideration of the role played by the introductory courses. About 500,000 undergraduates in four-year colleges and universities take physics (mostly introductory physics) each year, about half in calculus-based courses and half in algebra-trig-based courses. Almost all engineering students take a calculus-based introductory physics course and many life sciences students, particularly those aiming for professional schools, take a year of introductory physics with labs. Many chemistry, mathematics, environmental

science, and architecture majors take physics as well. An additional 200,000 students take introductory physics each year in two-year colleges. Thus, recommendations from the task force have the potential to provide more effective education for students in many STEM disciplines. In addition, although J-TUPP's work will focus on recommendations and guidelines for bachelor's degree-granting physics departments, we recognize the role that two-year colleges play in the undergraduate physics education enterprise. J-TUPP will receive input from leaders in physics education at two-year colleges and will pay particular attention to the role of two-year colleges in educating future physics majors. Finally, the role of undergraduate research will also be considered by J-TUPP since the research experience plays a vital role in providing hands-on experience and important preparation for students going on to graduate school or directly into the workforce.

J-TUPP will be seeking input from the physics community in the coming year. For example, discussion sessions or town hall meetings will be held at upcoming AAPT meetings (2015 Winter Meeting in San Diego, CA and 2015 Summer Meeting in College Park, MD) as well as at the APS 2015 March and April meetings. Other avenues for feedback will also be considered. For more information about J-TUPP, including members of the Task Force and charge, see www.aapt.org/Programs/J-TUPP.cfm. Periodic updates will be made to this webpage as J-TUPP makes progress on the charge.

1. *President's Council of Advisors on Science and Technology. (2012) Engage to excel: Producing one million additional college graduates with degrees in science, technology, engineering and mathematics.*
2. *Hilborn RC, Howes RH, Krane KS. (2003) Strategic programs for innovations in undergraduate physics: Project report. College*

Park, Maryland: American Association of Physics Teachers.

3. Brewer CA, Smith D, editors. (2011) *Vision and change in undergraduate biology education*. Washington, DC: American Association for the Advancement of Science.
4. National Research Council. (2012) *Discipline-based education research: Understanding and improving learning in undergraduate science and engineering*. Washington, DC: The National Academies Press.
5. National Research Council Committee on Physics Education Research and Implementation. (2013) *Adapting to a changing world--challenges and opportunities in undergraduate physics education*.

Beth A. Cunningham
AAPT Executive Officer
bcunningham@aapt.org

CURPA REU Program

This past summer, councilors and members of the CURPA Division hosted the first year of their pilot REU program funded by the National Science Foundation. This program seeks to provide students early in their academic education with a faculty mentored research experience with an emphasis on recruiting students from community colleges and universities where access to research for undergraduates is limited.



End of the summer field trip to the channeled scablands in central Washington. From left to right: KT, Juin, Clarissa (CWU student), Emily, Alfredo, Zach (in back), Garrett, Jose, and John. Other field trips included a visit to LIGO and the Wild Horse Wind and Solar Energy facility.

Seven undergraduates, all rising juniors, participated in this REU program with additional support provided by CUR and the Washington Space Grant Consortium. This year, the profiles of these students will appear in each of the newsletters, three of which appear in this edition.

Garrett Arnhold, Edmonds Community College: Garrett's project, "Biophysics of synchronization and chaos," was performed at the College of Charleston with Dr. Sorin Oprisan. Garrett graduated with his associate degree from Edmonds Community College and has transferred to the University of Washington to pursue a degree in Applied/Computational Mathematics.

Emily Dick, James Madison University: Emily's project, "A search for variability among highly evolved stars," was performed at Embry-Riddle Aeronautical University with Dr. Terry Oswalt and Dr. Saurav Dhital. This included a week of observing at Arizona's Kitt Peak National Observatory. Emily is working on her degree in physics.

Juin-Wan Zhou, Fordham University: Juin's project, "The effect of defects on microtubule persistence length," was performed at the University of Wisconsin-La Crosse with Dr. Tav Hawkins and Dr. G. R. Sudhakaran. Juin is working on her degree in engineering physics.

Later this fall, we will be announcing the details related to the second year of our REU program. So please be sure to keep your eye out for the announcement.

Michael Jackson
Central Washington University
jacksonm@cwu.edu
and
John Mateja
Murray State University
jmateja@murraystate.edu

Call for Nominations for the 2015 CUR-Goldwater Scholar Faculty Mentor Award

Outstanding mentoring is central to successful undergraduate research experiences. CUR and the Goldwater Foundation will again co-sponsor an award to recognize a faculty member who has mentored undergraduates who have won a Goldwater Scholarship. To be eligible for the award, a faculty member must have five or more years of teaching and research experience past the terminal degree, have mentored three or more recipients of a Goldwater award (Scholars and/or Honorable Mentions), and have conducted his/her work in a STEM discipline.

The 2015 CUR-GS Faculty Mentor Award will be presented to the award recipient at NCUR 2015, to be held at Eastern Washington University from April 16-18, 2015. The awardee will receive a plaque and cash prize of \$5,000, which will be awarded to the recipient's institution and dedicated to support of the faculty mentor's research program and/or current undergraduate research students.

The selection process will follow a two-step process. Initial nominations must be made by letter from the president or provost of the faculty member's institution by November 3, 2014. Along with the letter, the initial nomination packet should include a three-page CV of the nominee and a list of the names of at least three Goldwater Scholars who the nominee has mentored, the years of their awards, and an indication of whether the nominee was the sole research mentor, joint mentor, or supported the student in preparing his/her Goldwater application only. Those selected to move to the second round of the nomination (by mid-December) will have until February 2, 2015 to complete their nomination portfolio. For additional information, please visit the CUR-Goldwater link on the CUR web page

at: www.cur.org/projects_and_services/goldwater_scholars_faculty_mentor_award/.

Institutions can only nominate one candidate for the award per year.

The first CUR-GS Faculty Mentor Award was presented in 2014 at CUR's biennial Conference in Washington DC to Dr. Francis Connelly from the Department of Mathematics at the University of Notre Dame.

John Mateja
Murray State University
jmateja@murraystate.edu

CUR Fellows Awards Nominations

The Council on Undergraduate Research requests nominations for the 2016 CUR Fellows awards. The CUR Fellows awards are presented at the biennial Conference to two CUR members who have influenced undergraduate research through their own research, through scholarly or creative projects with undergraduates, and through demonstrated leadership activities. Each CUR Fellow also receives a Brian Andreen-CUR Student Research Fellowship to be awarded to a deserving undergraduate at his/her respective institution. Awardees play a major role in advancing undergraduate research by promoting discipline specific activities that may include the following:

- demonstrating a strong track record of scholarly and/or creative projects involving undergraduates,
- providing mentorship to undergraduate researchers, scholars, or artists, who have produced significant work in their fields,
- securing support for their work and for their students,
- spear-heading efforts to institutionalize undergraduate research on their campuses and across the nation, particularly through their involvement in CUR

In sum, the CUR Fellows are leaders and role models for a broad range of faculty and

students. Full details of the CUR Fellow criteria and biographies of past CUR Fellows can be found at www.cur.org/projects_and_services/cur_fellows/.

While self-nominations are not accepted, any member of CUR may nominate another CUR member for the CUR Fellows awards. A nomination consists of a two-page letter highlighting the nominee's contributions to all areas of undergraduate research and creative activity. Additionally, a two-page CV of the nominee should be included. Although abbreviated, the CV should detail the nominee's contribution to undergraduate research/creative activity, ranging from mentoring undergraduate students with resulting publications and creative works to promoting undergraduate research beyond the local level. The letter and CV must be submitted to the CUR National Office as a single PDF document, uploaded via the link on the CUR Fellows website: www.cur.org/projects_and_services/cur_fellows/. The deadline for nominations is December 10th, 2014. Questions may be addressed to cur@cur.org

Nadine Barlow
Northern Arizona University
CUR Fellows Co-Chair
Nadine.Barlow@nau.edu

AAPT-ALPhA Award

An exciting new award is now available to upper level undergraduate physics majors. The AAPT-ALPhA Award recognizes outstanding work by a student who has developed an advanced laboratory apparatus/experiment. The Award includes a \$4,000 cash honorarium for the student, as well as an invited talk at the AAPT meeting where the award is presented. At the same AAPT meeting, the faculty supervisor will be recognized with a citation. All travel and meeting expenses for both the student and advisor will be covered. National recognition of projects such as these will

encourage their proliferation and help build the next generation of experimental physicists and educators.

Please advertise this opportunity to your faculty colleagues, especially those who are teaching advanced laboratories, and to upper level undergraduate physics majors. For more information about the Award including the submission process and deadlines, please see:

www.aapt.org/Programs/awards/aapt_alpha_award.cfm.

A flyer that can be printed and posted throughout your department and in student lounges is also available for download at the Award webpage. We anticipate presenting the first award at the 2016 AAPT Winter Meeting.

Jonathan Reichert
Chair, AAPT-ALPhA Award Committee
jfreichert@teachspin.com
and
Beth A. Cunningham
AAPT Executive Officer
bcunningham@aapt.org



2015 Posters on the Hill

Do you have an engaging, personable research student who can explain his/her research to a non-technical, educated audience? If so, your student might be a great advocate for undergraduate research in Washington, DC, and should consider applying to the 2015 Posters on the Hill. This program is aimed at connecting undergraduates with their congressional representatives. Nothing more effectively demonstrates the value of undergraduate

research than the words and stories of the student participants themselves.

Last year's CURPA recipients were:

- Mark E. Sellers and Philip Luke Spinolo, Rhodes College, (Advisor: Dr. Brent Hoffmeister), "Diagnosing osteoporosis: A promising new ultrasonic technique"
- Jillian Bolinger, University of Massachusetts Dartmouth, (Advisor: Dr. Robert Fisher), "Predicting the signature of thermonuclear supernovae resulting from merging white dwarf stars"
- Rance Solomon, Middle Tennessee State University, (Advisor: Dr. Daniel Erenso), "Alternative new approaches to early detection and effective treatments of cancer"

Additionally, the following student from the Physics and Astronomy Division received an honorable mention:

- Kyla Koboski, Hope College, (Advisor: Dr. Jennifer Hampton), "Characterization of hydrogen evolution reaction on dealloyed porous NiCu"

CUR has started accepting applications for the 2015 Posters on the Hill event. The submission deadline is the end of the day on November 5, 2014. Selected participants will be notified in late January/early February 2015. Interested in learning more? Please visit the CUR website at:

www.cur.org/conferences_and_events/student_events/posters_on_the_hill/

Michael Jackson
Central Washington University
jacksonm@cwu.edu

NCUR 2015

The 2015 National Conference on Undergraduate Research (NCUR) will be held at Eastern Washington University in Cheney, WA from April 16-18, 2015. This is a major venue for undergraduate students

to present their research and consists of a variety of plenary speakers as well as oral and poster presentations, visual arts displays, and performances. Abstracts will be accepted Sept. 29 through Dec. 2, 2014. For more information about NCUR, including a draft schedule of the conference and links to the application, please go to: www.cur.org/ncur_2015/.



2015 NCUR Travel Award:

The CUR Physics and Astronomy division is pleased to offer travel awards for students attending the National Conference on Undergraduate Research (NCUR) at Eastern Washington University, April 16-18, 2015. Applying for the travel award is easy!

When your abstract is accepted by NCUR, send a single email to Michael Jackson (jacksonm@cwu.edu) with the following:

1. Your name and contact information
2. Your student's name and contact information
3. Your NCUR acceptance letter

Awards will be made on a first-come first-serve basis. The first several applicants will have their student registration fee paid by the CURPA Division. Notification of abstract acceptance will begin on January 5, 2015. Please note:

- *One award will be made per department*
- *Awards are limited to physics and astronomy submissions. Separate physics and astronomy departments from the same campus will be considered as distinct, and are each eligible.*

- *Priority is given to students of CURPA members. CURPA councilors may apply, but will receive an award only if funds are available after they have been distributed to the general CURPA membership.*

Michael Jackson
Central Washington University
jacksonm@cwu.edu



Your CURPA Councilors came together for the June 2014 CUR Business Meeting and National Conference in Washington, DC. Left to right: J. Mateja, M. Jackson, T. Oswalt, M. Bautista, S. Oprisan, N. Barlow, D. McBride, B. Cunningham, J. Armstrong, R. Peters, G. Sudhakaran, A. West, M. Samiullah, M. Beaky, B. Utter, C. Hughes, T. Sauncy.

Councilor Nomination Deadline

The nomination deadline for CUR Councilors to serve on the Physics and Astronomy Division is November 6, 2014. All current CUR members (including new members at the time of nomination) are eligible and encouraged to apply. Remember, membership is free if your institution is an enhanced member of CUR—all a person has to do is fill out the membership application. Please contact any colleagues you feel would make good candidates for a CUR Council position. Learn more about the CURPA Division at: www.cur.org/governance/divisions/physics_astronomy/

Please contact Raul Peters, CURPA Nominations Committee Representative, for more information or if you are interested in being nominated.

Raul Peters
Paine College
raulpeters@gmail.com



Another perk of becoming a CURPA Councilor—the annual CURPA Councilor dinner during the CUR Business Meeting!

Upcoming CUR Institute

Throughout the year, CUR offers a variety of institutes for faculty and administrators. One upcoming example is ***Beginning a Research Program in the Natural Sciences at a Predominantly Undergraduate Institution Institute.***

Next Offering: November 21-23, 2014; Embassy Suites - Greensboro, Greensboro, NC

Application Deadline: September 26, 2014

Starting a successful research program and doing scholarly work at a predominantly undergraduate institution pose unique challenges for a beginning faculty member. A goal of the institute is to give individual pre-tenured faculty members the opportunity to learn from and discuss with experienced faculty how to establish and manage a research program with undergraduates. While at the institute, participants will also prepare plans for starting and/or advancing their individual research programs at their respective campuses. A range of topics will be covered during the institute that show ways to achieve career success in undergraduate research by learning how to:

- select undergraduate researchers,

- mentor student researchers and develop and use their research skills,
- manage time—balancing teaching, research and service activities,
- develop and select research projects appropriate for undergraduates,
- adapt to an undergraduate research environment versus that in graduate school,
- link research to the classroom, and
- develop grantsmanship skills related to gaining external and institutional research support.

Past participants have noted

“Meeting other young faculty from similar institutions, learning about case studies in which research was integrated in classroom settings, learning about funding opportunities and strategies to improve grant writing success were all high points.”

“This is a great workshop and I learned so much. Definitely one of those career changing meetings for me. Thank you so much for this opportunity!”

For more information and to submit your application, please go to:

https://members.cur.org/members_online/submissions/substart.asp?action=welcome&cid=147

*Beth Ambos
CUR Executive Office*

Kudos To:

We received no contributions for this newsletter’s Kudo’s column. Certainly this must be a fluke! We know our enthusiastic CURPA Members are doing fabulous things for which they are being recognized through awards, promotions, etc. We also highlight undergraduate student research presentations and publications in this column. We are looking for contributions from **ALL** CURPA Division members, so please let us know

about your and your students’ accomplishments so we can include them in the Winter newsletter.

*Nadine Barlow
Northern Arizona University
CURPA News Editor
Nadine.Barlow@nau.edu*

Opportunities

(If you have a job opening that you would like to advertise here, please send the ad to CURPA News editor Nadine Barlow for inclusion in the next newsletter)

Two Tenure-Track Assistant Professors, The College of New Jersey: The Department of Physics at The College of New Jersey (TCNJ) invites outstanding applicants for two tenure-track Assistant Professor positions (retirement replacements) starting late August 2015.

1) *Experimental Physics.* This search is focused on an experimental physicist who works in one of the following areas (in order of preference): (a) condensed matter; (b) atomic/molecular; (c) nuclear/particle.

2) *Physics Education.* This search is focused on someone trained in, or with substantial experience in, physics education research. This faculty member will be involved with our strong dual major in Physics and Secondary Education, as well as with implementing modern pedagogical techniques in courses at different levels.

An earned doctorate in physics, or a closely related field, is required. Although post-doctoral experience is preferred, other backgrounds will be considered; ABDs will be considered only if the degree will be completed prior to the start date.

Teaching and research are mutually supportive activities at TCNJ. Candidates should be strongly committed to the teacher-scholar model, to maintaining both high-quality teaching and an active and productive research program involving highly motivated undergraduates, and to

seeking external funding consistent with this mission. For more information about the department, visit physics.pages.tcnj.edu.

Your CURPA Councilors

John Armstrong, Weber State University. Integrating Research into the Curriculum Task Force and CURPA Webmaster.

Nadine Barlow, Northern Arizona University. CURPA News Editor and CUR Fellows Committee.

Maria Bautista, Kapi`olani Community College. Broadening Participation Task Force.

Matthew Beaky, Juanita College. CUR Finance Committee.

Mark Biermann, Valparaiso University. Constitution and ByLaws Committee.

Horace Crogman, University of California Merced.

Beth Cunningham, AAPT. CURPA Mentoring program.

Chris Hughes, James Madison University. Program Review Committee.

Michael Jackson, Central Washington University. CURPA Chair, CUR Posters on the Hill Committee, and CUR Executive Board.

Liubov Kreminska, City College of New York.

John Mateja, Murray State University. CUR/Barry Goldwater Scholar Faculty Mentor Award Committee and NCUR Oversight Committee.

Duncan McBride, National Science Foundation. CUR Treasurer, CUR Finance Committee, and CUR Investments Committee.

David McGee, The College of New Jersey. Internationalization and Undergraduate Research Task Force.

Sorinel Oprisan, College of Charleston. CUR Quarterly Editors Board.

Terry Oswald, Embry-Riddle Aeronautical University Daytona Beach. Advocacy Advisory Committee.

Raul Peters, Paine College. Nominations Committee.

Mohammad Samiullah, Truman State University. Internationalization and Undergraduate Research Task Force.

Toni Sauncy, Texas Lutheran University.

Allyn Smith, Austin Peay State University. CUR Posters on the Hill Review Committee.

Gubbi Sudhakaran, University of Wisconsin La Crosse, NCUR Oversight Committee.

Brian Utter, James Madison University.

Andrew West, Boston University. Broadening Participation Task Force.

CURPA News Deadline

CURPA News comes out three times per year and we welcome your contributions! Please send your submissions, comments, achievements, opportunities, etc. to editor Nadine Barlow at Nadine.Barlow@nau.edu. Deadline for the Winter 2015 issue is **January 9, 2015**.