

COLLEGE OF NATURAL SCIENCE and MATHEMATICS

Minutes of Council of Chairs Meeting – February 8, 2016

A meeting of the Council of Chairs of the College of Natural Sciences and Mathematics was held on Monday, February 8, 2016. Stephen Addison presided, members present: Jeff Allender, Pat Desrochers, Ramesh Garimella, Uma Garimella, Brent Hill, and Carl Frederickson. Absent: Ginny Adams.

Agenda Items:

- Minutes from the December 7, 2015 meeting were approved.
- Dean Addison announced that the College Curriculum Committee has decided to meet on the third Thursday of each month. Items to be considered at the regular meeting must be submitted by the end of the previous month.
- Dean Addison announced that Academic Affairs is rolling out a monthly newsletter and wants input from each department. Stories, news, announcement, and photos can be submitted to Suzanne Massey by the 10th of each month for inclusion in the newsletter.
- Dean Addison reminded Chairs to look over the 2+2 agreements to make sure that reflect the 2016-2017 program requirements accurately for their departments. He encouraged Chairs to continue to work with Brian Corbin as we need to increase the number of transfer students to keep enrollments and retention rates up.
- Dean Addison announced that President Tom Courtway will be holding a CNSM specific town hall meeting on Monday, February 22, at 3p.m. in Lewis Science Center 100.
- Dean Addison reminded chairs that Sabbatical Leave requests for Spring 2016 are due to him on February 18th. He asked that Chairs to encourage eligible faculty to apply for sabbatical.
- Dean Addison introduced the National Center for Women & Information Technology “Sit With Me” campaign to promote and encourage women in STEM. The program uses an iconic Red Chair made out of 111 recycled coke bottles to symbolize the need for more women to be involved in STEM disciplines. A red chair has been purchased and is available for capturing photos or videos of faculty and students taking a stand by sitting in the red chair and telling their stories. An information kit was distributed and discussion followed on how to use the chair in upcoming events.
- Dean Addison informed Chairs that to allow for better planning and use of Degree Works, we are being asked to enter course schedules for the next two years. This is not a guarantee of availability but a general plan of what could be offered. We will also be rolling out summer registration earlier – students will now register for Spring and Summer classes at the same time.
- Dean Addison announced that he and Dr. Hill are traveling to Pulaski Tech on Wednesday to look into the possibility of establishing a UCA University Center on their campus. Courses would be taught by UCA faculty and allow students to get a degree from UCA without having to travel to Conway.
- Dean Addison updated Chairs on concerns with UCA Online. UCA Online falls under Academic Affairs and will report to Kurt Bonecki. All curriculum must go through the normal curriculum process and we will not be supporting any consortium agreements that were made in the interim.
- Dean Addison announced that the CNSM is working on a new collaboration with the Cyber Innovation Center to offer K8 coding classes that will help teachers pass Praxis exams.

Other Items

- Dean Addison extended the due date for URC Proposals to the end of the day Thursday, February 11th. He asked that Chairs encourage their faculty to apply for funding to support ongoing projects.
- Dean Addison encouraged Chairs to participate in one of the upcoming Strategic Planning Task Force forums.
- Interviews for the Honors College will begin soon with 120 students being interview for the 75 available slots. Dean Addison asked that chairs reach out to students and let them know what options are available if they are not selected. Discussion followed.
- Position requests are due to the Dean by 9 a.m. on Tuesday, February 23rd.

Chair Reports

Biology

Dr. Hill reported:

- Dr. Arijit Mukherjee received a travel award from the American Society of Plant Biologists.
- Dr. Reed Adams was featured in the Fall issue of UCA Magazine in a piece titled, "From the Gar-Chives, Saving the South's Alligator Gar."
- Drs. Reed and Ginny Adams received a US Fish and Wildlife Service and Arkansas Fish and Game Commission grant in the amount of \$42,000.
- The Biology Department is conducting two faculty searches, one for an A&P Lecturer and another for a tenure track Genetics Professor.

Chemistry

Dr. Desrochers reported:

- The department recently completed a site visit by Dr. Bert Holmes (UNC Asheville) as part of its ADHE mandated self-study. Dr. Holmes met with faculty and students over the course of 3 days, January 31-February 2. His preliminary assessment mentioned the exceptional quantity and quality of work the department does given the high teaching loads of faculty. His number one priority for the department was a masters-level person to serve as lab/stockroom coordinator in addition to a BS-level chemist to help with chemical preparation for teaching labs.
- Over the final two weeks of January the department interviewed three candidates for its new permanent lecturer position. The goal is to have this person hired on or about the middle of February.
- In December the department interviewed three candidates for its replacement analytical chemist position. This search led to the successful hiring of Dr. Nathan Meredith, who will begin as a tenure-track assistant professor in August. Dr. Meredith's current research interests are paper-based microfluidic devices which can lead to inexpensive paper devices for analyzing water samples. Dr. Meredith's research offers benefits to environmental science and some geography outreach programs.

Computer Science

Dr. Ramesh Garimella reported:

- Two tenure track searches in computer engineering are underway.
- Dr. Chenyi Hu has been nominated as a Commissioner for the ABET/CAC next year.
- Dr. Bernard Chen recently served on two panels: NSF GRFP (NSF Graduate Fellowship) panel and an Arkansas ADE panel to review a new program leading to Computer Science 4-12 licensure proposed by Arkansas Tech.

Geography

Dr. Allender reported:

- Michael Yoder had his invited book review published in the American Association of Geography Annals, the book was, The Geographies of Air Transport.
- Steve O'Connell, Ellen Hostetter, and Jeff Allender have all been invited to the AP Reading for AP Human Geography, June 1-8, in Cincinnati.
- Dr. Will Flatly has verbally accepted our offer and should be joining the Department of Geography in Fall 2016. His PhD is from Texas A&M and he is currently in a Post-Doc at the School of Forestry, Northern Arizona University, Flagstaff. His research specialties are Forest Dynamics, Fire Ecology, Climate Change, Ecological Restoration, and Ecological Modeling.

Mathematics

Dr. Ramesh Garimella reported:

- Mathematics majors, Ms. Alma Malibekova and Ms. Diana Morales presented a research poster titled, "Mathematical Modeling of Epidemic with Exposed Group and Diffusion" at the 2016 Joint Mathematical Meetings held on January 6-9 in Seattle. Both Alma and Diana received travel funds from the Math Department, the CNSM Dean's Office, and the URC to attend the meetings. Dr. Long Le, Associate Professor of Mathematics, mentored the students.
- Campus interviews for Applied Statistics candidates have been scheduled for this week and next week.
- A search is underway to fill a tenure-track position in mathematics education, recently vacated by Dr. Linda Griffith.

STEM Institute

Dr. Uma Garimella reported:

- Paper and Presentations:
 - Invited to submit a STEM Integrated paper: National Council of Teachers of Mathematics will be publishing a new K-6 online anthology of articles with strong interdisciplinary connections.
 - Presented at Annual Source Conference on January 15th. Paid by Library of Congress. Was invited to collaborate with regional team to build a program to integrate science and Library of Congress. The meeting is in March.
 - Math and Science Partnership Conference in Maryland on March 1st. Grant funded. Evaluator and Co-PI are joining me.

- Invited to present at STEM Conference in Cleveland, OH in April.
- Grants:
 - STEM Leadership for Girls grant. Conference will be held February 26th in Mail Hall and Ida Waldren. There are several presenters and 80-100 girls are expected to attend.
 - Connecting Core Concepts, Year III – Jerry Mimms, Carolyn Pinchback, and Shoudong Feng.
 - Excellence in Elementary School Science Year I – Audie Alumbaugh, Michelle Buchanan, Jerry Mimms.
- Professional Development Trainings – New science standards are being adopted by K-4 this year and 5-8 next year. Both specialists are in the schools providing support:
 - Working with Kevin Nolten from Louisiana Tech – host STEM ED for summer
 - Mike Mills and Helen Hu are providing Technology PD for STEM Institute
 - College of Education faculty (with approval from Dean) collaborating.
 - STEM Coalition Meeting on February 25th
 - Hosting Super Saturday AP review session on March 12th.
 - Offer PD to private schools and other school districts.

Physics

Dr. Frederickson reported:

- Encourage faculty to nominate rising sophomores and juniors for Noyce summer intern positions. The nomination form is at <https://uca.edu/web/forms/view.php?id=914>
- Remodel of LSC 173 is underway. The space is being remodeled to provide a research lab for the biophysics program. This is being funded by an infrastructure grant through Arkansas INBRE.
- The 2nd CS Chair candidate will be on campus February 15 and 16. The chairs will meet with the candidate on February 15th at 4pm with a reception to follow.
- The UCA Department of Physics and Astronomy was recently recognized as a highly productive department reaching the American Institute of Physics list of schools offering only undergraduate degrees who are averaging 10 or more physics graduates per year.
- Papers accepted for publication November 2015 – January 2016
 - **Mason, A. J.**, Yerushalmi, E., Cohen, E., Singh, C. (2016). Learning from mistakes: The effect of students' written self-diagnoses on subsequent problem solving. *The Physics Teacher*.
 - Brown, B., **Mason, A. J.**, Singh, C. (in press). The Effect of Giving Explicit Incentives to Correct Mistakes on Subsequent Problem Solving in Quantum Mechanics. *To appear in Physical Review: Special Topics - Physics Education Research*.
 - Ryan, Q. X., Frodermann, E., Heller, K., Hsu, L., **Mason, A. J.** (in press). Computer Problem-solving Coaches for Introductory Physics I: Design and Usability Studies. *To appear in Physical Review Special Topics - Physics Education Research*.

- **Mason, A. J.** (2015). Potential Relationship of Chosen Major to Problem Solving Attitudes and Course Performance. *2015 Physics Education Research Conference Proceedings*,
- Brown, B. R.*, Singh, C., **Mason, A. J.** (2015). The Effect of Giving Explicit Incentives to Correct Mistakes on Subsequent Problem Solving in Quantum Mechanics. *2015 Physics Education Research Conference Proceedings*
- **Mason, A. J.**, Singh, C. (in press). Impact of Guided Reflection with Peers on the Development of Effective Problem Solving Strategies and Physics Learning. *To appear in The Physics Teacher*.
- **Mason, A. J.**, Singh, C. (in press). Using Categorization of Problems as an Instructional Tool to Help Introductory Students Learn Physics. *To appear in Physics Education (Institute Of Physics)*.
- Presentations at the AAS meeting Kissimmee Florida January 6 & 7, 2016
 - *Thomas Cameron, Lucas Ratz, Debra L. Burris*, “Using the H- β Emission Line as a Means of Mass Determination for Spiral Galaxy AGNs.”
 - **Debra L. Burris**, “Enriching Cross Curriculum Projects with Astronomy for Gifted Students.”
 - *Harrison Cardillo, Debra L. Burris*, “La and Eu Abundances in Metal-poor Halo Stars”
- Azida Walker and Ashley Hicks went with 6 students: Caity Mason, Sarah Spellmann. Brittany Devanzo, Kayla Waters, Eva Hudson, Christian Mitchell to the Women in Physics Conference January 15-18 in San Antonio, TX. Ashley served on a panel at the meeting.
- Will Slaton and three of the Chainless Bicycle Challenge team members: Seth Thomas, Caleb Webb, and Harrison Cardillo visited their collaborator at the Vanderbilt University LASIR lab, in Nashville, TN on February 3rd. On February 4th they visited Oak Ridge National Laboratory, Oak Ridge, TN.