

COLLEGE OF NATURAL SCIENCE and MATHEMATICS

Minutes of Council of Chairs Meeting - October 15, 2018

A meeting of the Council of Chairs of the College of Natural Sciences and Mathematics was held on Monday, October 15, 2018. Stephen Addison presided, members present: Ginny Adams, Emre Celebi, Pat Desrochers, Carl Frederickson, Ramesh Garimella, Uma Garimella, Brent Hill, and Steve O'Connell.

Agenda Items:

1. Minutes from October 1, 2018 meeting approved with minor revisions.
2. Uma Garimella presented an Adopt a Professor Program to council. The program is designed to provide K-12 educators with engaging opportunities to connect with university faculty in supporting the learning needs of the local education community. She is seeking faculty that would be willing to participate in the program and will send out an interest survey in the coming weeks.
3. Dean Addison discussed the application process for Carnegie Elective Accreditation and asked chairs to review possible questions in preparation for completing the application.
4. Dean Addison announced that the college has hired a student assistant for John Black who will help with poster printer and IT issues. He asks that chairs reinforce with faculty and staff the need to complete a work order so issues can be tracked and assigned.
5. Dean Addison updated council on the new engineering annex and Lewis Science Center renovations. A fund has been set up and discussion followed on what needs we could address such as dedicated lab space for Geography, new faculty offices, and safety concerns with present seating in classrooms.
6. Dean Addison stressed the importance of attending regional organization meetings as they provide opportunities for leadership and first-time student presentations. Hendrix will be hosting the Arkansas Academy of Science in Spring 2019 that will make it easier for a large group from UCA to attend.
7. Dean Addison updated council on changes regarding international recruiting including when green card fees will be paid. Discussion followed.
8. Dean Addison announced that Jonathan Glenn is going to set up college meetings to discuss changes to current assessment practices. Discussion followed on the need to have evaluated questions that could be compared from year to year and the need to evaluate both the faculty and the course.
9. Dean Addison reminded council that there would be two commencement ceremonies starting in December with the Graduate ceremony on Friday evening and three undergraduate ceremonies on Saturday. The CNSM will most likely be the second ceremony along with CFAC and Liberal Arts.

Other Items/Announcements

- Dean Addison announced that the Provost Office will provide support and pay green card fees for international hires but will not seek a green card in the first H1B period. Discussion followed.

- Please continue to submit dates and times for Creative Services to come by and take photos of our students in action. Photos will be used on brochures and other recruiting materials.
- Pat Desrochers announced that chemistry alum, Mary Good, is giving a talk on November 1 during x-period.
- Dean Addison reminded chairs that we will no longer have chair reports during council meetings and asks that reports be emailed to Dayna so they can be appended into the minutes.
- If you have any items that need to be added to the agenda, send them in before our next meeting on October 15th.

Chair Reports:

Biology

Dr. Hill reported:

- No report

Chemistry

Dr. Pat Desrochers reported:

- Greg Naumiec and Tori Dunlap had a paper accepted to *ACS Omega* with two undergraduate coauthors. The paper describes a synthetically modified protein-purification resin (Naumiec group) that greatly increases the efficiency and quantity of recombinant protein (Calmodulin, Dunlap group) that can be isolated. This is a tool useful to other biochemists and currently being tested in CHEM 4121 (Biochemistry Lab).

Computer Science

Dr. Emre Celebi reported:

- No report.

Geography

Dr. Stephen O'Connell reported:

- The following faculty and students participated in the Southwestern American Association of Geographers regional conference in Baton Rouge, LA, from October 3-6:
 - W. Breck Brammer presented a poster titled "Barriers in Diffusion of Culture in India"
 - Dr. Matt Connolly presented a paper titled "Measuring Representative Mountain Bike Impacts in a Protected Drinking Water Supply Watershed"
 - Hunter Crocket presented a poster titled "A Statistical and Geographical Analysis of Hispanic Voting Patterns in the 2016 Election"
 - Mark Mahar presented a paper titled "The Issue of Tracking Parishioners: A Case Study of Arkansas Catholics"
 - Lillian McDaniel presented a poster titled "Fire History of an Unlogged Shortleaf Pine Forest in the Ouachita Mountains, Arkansas" as part of her work with Dr. Will Flatley.
 - Dr. Michael Yoder (adjunct) presented a paper titled "Economic Development, Land Use, and Commercial Transportation in Two Small Cities of South Texas"

Mathematics

Dr. Ramesh Garimella reported:

- On October 10, the Department of Mathematics organized a Julia Robinson Mathematics Festival for over 200 eighth graders from Maumelle Middle School as part of a STEM Day field trip organized by the STEM Institute. Directed by Dr. Todd Abel and Dr. James Fetterly, six faculty, one retired faculty, five graduate students, and 15 undergraduate majors from the Math Department volunteered to serve as table facilitators, helping students play with rich mathematical problems, engage with mathematical ideas, and practice mathematical habits of mind. Julia Robinson Mathematics Festival is an organization supported by the American Institutes of Mathematics for the purpose of creating mathematics enrichment opportunities for students across the country.
- On September 28th, the Arkansas Council of Teach of Mathematics (ACTM) hosted a mini conference at Pulaski Technical College in North Little Rock, Arkansas. ACTM is comprised of 14 or more board members from across the state. On the ACTM board, UCA has three representatives: Dr. Charles Watson (ACTM Contest Director), Dr. James Fetterly (Vice-President for 4-year Colleges), and Mr. Jacob Sisson (Vice-President of Junior High/Middle School). Dr. Linda Griffith, retired Professor of Math, gave a keynote address. With over 250 individuals registered for the conference, Drs. Todd Abel and Ramesh Garimella manned a table for recruitment that highlighted the Mathematics Department and its graduate programs.
- Dr. Fetterly presented talks at the Arkansas Council of Teacher of Mathematics mini Conference at Pulaski Technical on September 28 on three different topics: *Inspiring Algebraic Thinking: From Concrete to Conceptual*, *Stimulating Proportional Thinking: Building on Prior Knowledge*, and *Inspiring Geometric Thinking Through Problem Posing*.
- This week at the School Science and Mathematics Association (SSMA) Conference in Little Rock, Dr. Fetterly and Demetrius Moore (MA Math Ed graduate student) will be presenting on a research project, *Exploring Impacts of Problem Posing and Divergent Thinking on Mathematical Creativity*. Another paper titled *Student Authored Story Problems for Fraction Number Sentences* by Dr. Nesrin Sahin, Dr. Fetterly and Wesley Martssching (MA graduate student) will be presented as well.
- Fall Math Seminar series is already in full swing. The following presentation have been made and several others have been scheduled:
 - Mrs. Loi Booher: *Cultural Relevance in STEM Classrooms* (Sept 12)
 - Dr. Yeil Kwon: *Post Selection Nonparametric Empirical Bayes Estimation for Multiple Variances* (Sep 19)
 - Dr. Yinlin Dong: *Weak Galerkin Finite Element Method for Poisson's Equations* (Oct 3)
 - Dr. Olcay Kursun of CS: *Deep Learning and Modeling Tactile Processing in Somatosensory Cortex*. (Oct 10)
 - Dr. Jeffery Beyerl: *The Riemann Hypothesis: What Exactly Does it Claim?* (Oct 17)
- For the 2018-19 Academic Year, the department has 18 graduate students including 13 full-time graduate teaching assistants and five part-time. There are 11 students pursuing MS Applied mathematics and the rest MA Mathematics Education.

- During the department's fall fund drive, so far eight faculty members have contributed \$460 for the Math Services Fund in the UCA Foundation.
- MA Self-study external report was received at the end of last month. The report had many positive comments with some suggestions for improvement. The Department is currently working on a response to the report.

Physics

Dr. Carl Frederickson reported:

- No report.

STEM Institute

Dr. Uma Garimella reported:

- 2018 Magna Teaching with Technology Conference, held October 5–7 in St. Louis, Missouri; Dr. Umadevi Garimella attended. Takeaways: mini lessons to inspire students; Kahoot as engaging tool, Flipgrid for video analysis.
- Hosted STEMfest campus tour for 175 Maumelle Middle School students. Math department faculty and graduate students hosted Mathfest competition; Physics hosted Planetarium show and Admissions gave a campus tour. It was highly effective and very successful. Good recruitment event. 16 UCA Faculty/Staff, 20 Pre-service Students, 8 UCA Students, 200 8th grade students, 25 Maumelle Faculty/Administration.
- Hosted Science and Engineering Institute (SEI@UCA) on October 13, 2018. Hot Springs Math and Science School faculty offered activities for 8 and 9th grade students. They looked at scaling from largest to smallest number possible. We had 56 registered and 26 attended.
- Remodelling all three rooms - 213, 214, and 215.
- Nicole Martin, Science Specialist, selected as one of 3 Science Specialists asked to attend three 2-day training meetings. By the end of 18-19 she will have micro-credentials to offer PD in three SIM Routines. SIM Content Enhancement Routines are dynamic teaching tools that use powerful teaching devices to organize and present curriculum content in an understandable and easy-to-learn manner.
- Jacob Sisson, Math Specialist, is offering several trainings on Number Talk and started a book study with several school districts.

Development Officer

Aimee Poynter reported:

- No Report