

COLLEGE OF NATURAL SCIENCE and MATHEMATICS

Minutes of Council of Chairs Meeting - January 28, 2019

A meeting of the Council of Chairs of the College of Natural Sciences and Mathematics was held on Monday, January 28, 2019. Stephen Addison presided; members present: Ginny Adams, Emre Celebi, Pat Desrochers, Carl Frederickson, Ramesh Garimella, Brent Hill, and Steve O'Connell. Members absent: Uma Garimella. Guests: Aimee Poynter, CNSM Development Officer.

Agenda Items:

1. Dean Addison led a discussion on concerns submitted by faculty for the upcoming Provost Town Hall meeting with the college on January 31st.
2. Dean Addison and Aimee Poynter updated council on recent trip to Houston, Texas to visit alumni in the area. Discussion followed on importance of making these visits and how the college can be more proactive in developing relationships with alumni.
3. Dean Addison asked for review of the Bear Facts Day on January 28th. Discussion followed on ways the college can increase recruiting efforts.

Other Items/Announcements

- Aimee Poynter asked for a time to meet with each department to discuss Day of Giving.
- Night Under the Stars is on February 21st. There are currently 290+ people registered to attend the event.
- Arkansas Business is doing a feature article on the Cyber Range.
- Ginny Adams reported that the Fisheries Group is planning a science night event for autistic children.

Chair Reports:

Biology

Dr. Hill reported:

Biology Dept Highlights - Fall 2018

- Drs. Ginny and Reid Adams took 3 graduate and 1 undergraduate students to the Southeastern Fishes Council meeting in South Carolina. The students gave 2 talks and 2 poster presentations.
- Dr. Ginny Adams gave a talk at the Arkansas Wildlife Action Planning meeting at Mt. Magazine, AR.
- Biology Alum, Matt Schroeder, was awarded AGFC Fisheries Biologist of the Year.
- Drs. Ginny and Reid Adams received a grant in collaboration with AGFC, ADEQ (Arkansas Dept. of Environmental Quality), USGS and UCA entitled: Continuous Monitoring of Water Temperature and Quantity in Headwaters and Tributaries of the Strawberry, Middle Ouachita, Upper Ouachita, Little Missouri, and Caddo Rivers for \$112,628.

- Dr. Arijit Mukherjee submitted a paper (in review) to *Plant Molecular Biology* entitled “Time-course RNA-seq analysis provides an improved understanding of gene regulation during the formation of nodule-like structures in rice.
- Six students (1 graduate & 5 undergrads) from Dr. Arijit Mukherjee’s research lab attended the annual INBRE symposium in Fayetteville, AR. They gave a poster presentation entitled, “Using a molecular-genetic approach to investigate the interactions between rice and nitrogen-fixing bacteria, *Azospirillum brasilens*.”
- Dr. Arijit Mukherjee was awarded a grant from the Arkansas Space Grant Consortium for \$31,000. The project title is “Investigating beneficial plant-microbe symbiosis on simulated MARS soil.”
- Dr. Arijit Mukherjee and Randy Rainwater (undergraduate) submitted and were awarded an AR SURF grant.
- Dr. Candice Thomas is a contributor to the on-line instructor resources “Ready-To-Go Teaching Modules” for the textbook, *Human Anatomy & Physiology* by Marieb (Pearson Publishing).
- Dr. David Dussord and his graduate student, Brianna Trejo, presented the following at the Entomological Society of America and Canadian entomological societies, Vancouver, Canada.
 - Dussord D.E., Van Valkenburg M., Rajan K., Carrier D.J., Wagner D.L. 2018. A notodontid novelty: *Theroa zethus* caterpillars use their defensive weaponry to disarm the latex defense of their atypical host plants.
 - Trejo B., Gifford M., Dussord D.E. 2018. Energetic cost of girdling in the notodontid caterpillar, *Oedemasia leptinoides*.
- Ecofest exhibitors (Oct. 6th): Faculty and students from the UCA Fisheries & Wildlife Society and UCA Biology Dept.
- Mr. Steve Karafit: Awarded the STEM Residential College Faculty Associate of the Year for the 2017-18 academic year.
- Winners of the 2018 Jewel Moore Nature Reserve photography contest:
 - Students:
 - 1st place: Stefani Hall (undergraduate Biology major) - mushrooms
 - 2nd place: Jasper Reddin (undergraduate Computer Science major) – shelf fungus
 - Faculty/Staff/Alumni:
 - 1st place: Coleman Little (Department of Biology) – iridescent bee
 - 2nd place: Hayley Fugatt (School of Communication) – flowers surrounded by ring of sumac leaves
- Dr. Kari Naylor’s lab published the following paper:
 - E. Chernivec*, J. Cooper*, and K. Naylor. Exploring the effect of rotenone – a known inducer of Parkinson’s disease – on mitochondria dynamics in *Dictyostelium discoideum*. *Cells* 7(11), 201, 2018. *undergraduate
- Biology Dept Seminar Series – Fall 2018
 - Dr. Thomas Lowder, UCA, Dept of Exercise & Sport Science
 - Dr. Steve Foley, Federal Food & Drug Administration, Dept of Health & Human Services, NCTR
 - Dr. Shannon Rose, UAMS, Dept of Pediatric Clinical Pharmacology, AR Children’s Research Institute
 - Dr. Kari Naylor, UCA, Dept of Biology

Chemistry

Dr. Pat Desrochers reported:

- Faith Yarberry attended an NSF sponsored workshop an S-STEM Capacity Building Workshop at Rice University, January 31-Feb 1, 2019. This workshop is helping support the department's planned NSF S-STEM submission due in March.
- Bill Taylor attended an NSF grant reviewer weekend in Washington, DC, January 31- Feb 2, 2019. He is serving on an ad hoc grant review panel.
- Dr. Kerry Barnett accepted the department's offer of a tenure-track organic chemist position that starts in August 2019. Dr. Barnett is replacing Professor K. C. Weaver who has work in the department for over 30 years. Dr. Barnett is originally from Memphis. Her research involves the catalytic breakdown of lignin (a wood processing waste material) into useful commodity chemicals.
- Three different faculty submitted 2019 summer stipend requests: Massey, Meredith, and Naumiec.

Computer Science

Dr. Emre Celebi reported:

- No Report.

Geography

Dr. Stephen O'Connell reported:

- No Report.

Mathematics

Dr. Ramesh Garimella reported:

- No Report.

Physics

Dr. Carl Frederickson reported:

- John Singel, physics major, and Dr. Jeremy Lusk have received a 2018-19 SPS Chapter Research Award titled "SPS@UCA: Small Parallel Supercomputer at UCA." The award of \$2,000 will be used to build a small parallel computing system.
- Dr. Azida Walker and 4 students: Grace Zimmerman, Carol Stover, Kayce Conville, and Kimberly Manriquez attended the Conference for Undergraduate Women in Physics January 18 - 20 in Tuscaloosa, AL. Kimberly Manriquez, SPS UCA Chapter President, provided the following write up about the visit.
 - On January 18, Dr. Walker and 4 students from the Department of Physics and Astronomy, left to Tuscaloosa, Alabama, at the University of Alabama, to attend the annual Conference for Undergraduate Women in Physics (CUWiP). This annual conference is part of a network of regional conferences sponsored by the American Physics Society for Undergraduate Women in Physics. The students got an opportunity to visit research labs in the Department of Physics at the University of Alabama, these included the condensed matter lab and Astrophysics. While at the conference, the students were allowed to attend a variety of panels, from fields like engineering, astronomy or Biophysics; to how to write a

CV and Resume, careers in Physics, dealing with bias, imposter syndrome, and so much more. Each panel gave the opportunity for students to ask questions and learn from the panelists' experience in being a part of the physics community. There were many speakers as well including Dr. Pachauri who currently works as an engineer at Intel and Dr. Dawn Williams, a professor at the university working on techniques to detect tau neutrinos.

The big event of the conference was the keynote speaker, Dr. Fabiola Gionotti, who has received many awards including the Medal of Honour of the Niels Bohr Institute of Copenhagen (2013), Fundamental Physics Prize of the Milner Foundation, and so much more. Dr. Gionotti talked about her research in particle physics and her work in CERN, a European organization for nuclear research. It was quite an honor to listen to such a distinguished speaker. The students learned a lot not only in her field but also how to balance life with such a rigorous subject of study. This conference was such a wonderful experience, it allowed the students to interact with their peers from different states and from those who have experience both in industry and academia. It allowed the students to feel confident in themselves and even if the road ahead may be tough, they can make it through with persistence and hard work. The opportunities seem endless for women in STEM.

- Thursday, Jan 31st, at x-period in LSC 168 the UCA Chapter of SPS will be giving a tutorial on LaTeX using Overleaf.

STEM Institute

Dr. Uma Garimella reported:

- No Report.

Development Officer

Aimee Poynter reported:

- No Report.