COLLEGE OF NATURAL SCIENCE and MATHEMATICS
Minutes of Council of Chairs Meeting – August 26, 2019

A meeting of the Council of Chairs of the College of Natural Sciences and Mathematics was held on Monday, August 26, 2019. Stephen Addison presided; members present: Ginny Adams, Emre Celebi, Pat Desrochers, Carl Frederickson, Brent Hill, and Stephen O'Connell. Members absent: Ramesh Garimella and Uma Garimella. Guest: Todd Abel, representing Mathematics.

Agenda Items:

1. Dean Addison led a discussion on the Howard Hughes Medical Institute's (HHMI) Inclusive Excellence grant opportunity. The HHMI grant help universities engage students from all backgrounds throughout their undergraduate years especially those from underrepresented groups in the sciences. The grant would provide $1 million over five years. Dean Addison will serve as the Program Director and create a steering committee to develop our proposal. The pre-proposal is due January 14, 2020.
2. Dean Addison asked that Chairs remind their faculty to be sensitive to ADA needs and to act respectfully when working with students who request ADA assistance. Discussion followed on service animals in the laboratories and the need to work with legal to develop a policy to protect the animals in the lab.
3. Dean Addison asked that Chairs remind faculty of their responsibilities as the new semester begins.
   o Faculty should maintain office hours and be accessible to students during those hours; leave office door open.
   o Committee meeting attendance is a responsibility of the position and if unable to participate they need to recuse themselves.
   o Make sure DegreeWorks is updated on a regular basis.
   o Notify Chair when they are going to be absent; it is the Chair's responsibility to cancel class and know if assignments are being given for missed attendance.
   o Grade books are going to become mandatory, please develop a mechanism for access to gradebooks in the event a faculty member becomes incapacitated.
4. Dean Addison updated council on college committee members for the 2019-20 academic year and the need to replace Charles Watson on the Faculty Handbook Committee.
5. Drafts of grant proposals should be submitted at least two weeks prior to the submission deadline to allow for input and corrections.
6. Thesis should be submitted to Dean Addison at least two weeks prior to sign-off deadline so he has time to review them.
7. Information on recruiting events will be sent out this week.

Other Items/Announcements

- Allies in STEM is having a meeting on September 10th at X-Period. Please encourage faculty to attend.

Chair Reports:

Chemistry
Dr. Patrick Desrochers reported:

- Greg Naumiec was an invited speaker to the AR INBRE statewide meeting in Fayetteville, AR (Oct 2019).
- Madison Martin (M. Long, mentor) won 1st place in the undergraduate poster competition at the Arkansas NSF EPSCoR annual meeting in Little Rock (May 2019). In October 2019 she is attending the national NSF EPSCoR in Columbia, SC as the undergraduate representative from Arkansas.
- Lei Yang's proposal "Reductive Activation of CO2 by Binuclear Copper Complexes with A Cu-Cu Unit" was funded from NSF RUI. Total budget = $139,850 2019-2022 (May 2019)
- Greg Naumiec's proposal "The synthesis of a squaramide-based drug library for Chagas disease" to Arkansas INBRE was funded for $31,421 May 2019 – July 2020.
- Six different students (Massey and Desrochers groups) presented original undergraduate research at the 8th Annual Central Arkansas Undergraduate Research Symposium at UAMS. One of Dr. Massey's students, Nick Steinmetz, had is poster ranked in the top 10% of 100 posters presented. July 2019

Computer Science
Dr. Emre Celebi reported:

- UCA's first externally funded supercomputer, Bruce, is now online. This project was funded by a $105K award from the National Science Foundation and, in part, by the CNSM. Bruce is housed in Burdick Hall and has 16 CPUs (192 cores), 768GB RAM, and 40TB storage.
- Ahmad Alsharif published an article, "EPIC: Efficient Privacy-Preserving Scheme with EtoE Data Integrity and Authenticity for AMI Networks", in the IEEE Internet of Things Journal.
- Ahmad Alsharif presented a paper, "A Multi-Authority Attribute-Based Signcryption Scheme with Efficient Revocation for Smart Grid Downlink Communication", in the 2019 IEEE Internet of Things Conference (July 14–17, Atlanta, GA).
- Ahmad Alsharif has been promoted to the rank of Assistant Professor.
- Bernard Chen presented a paper, "Weather Impacts on Wine, A BiMax examination of Napa Cabernet in 2011 and 2012 Vintage", in the Industrial Conference on Data Mining (July 17–21, New York City, NY). This paper had multiple student co-authors.
- Bernard Chen's graduate student, Jared Wood, presented a paper, "Coffee-Informatics: Predict Quality Category of the Coffee through Coffee Sensory Reviews", in the Industrial Conference on Data Mining (July 17–21, New York City, NY).

- Mark Doderer, Karen Thessing, Mark Smith, and Michelle Talley organized the First Annual Computer Science Contest for Arkansas high school students.
- Mark Doderer has been promoted to the rank of Lecturer I.
- Tansel Halic has been promoted to the rank of Associate Professor with tenure. He is currently on a sabbatical leave.
- Tansel Halic and Sinan Kockara received an NIH award (≈$750,000) for their project entitled "Virtual Rotator Cuff Arthroscopic Skill Trainer".
- Mahmut Karakaya published an article, "Effect of Pupil Dilation on Off-angle Iris Recognition", in the Journal of Electronic Imaging.
- Mahmut Karakaya presented a paper, "Field of View of Portable Ophthalmoscopes for Smartphones", in the SPIE Defense and Commercial Sensing Conference (April 14–18, Baltimore, MD). The first author of the paper was a graduate student, Recep Hacisoftaoglu.
- Mahmut Karakaya received an NSF award ($259,316) for his project entitled "Standoff Iris Recognition Systems Using Deep Learning Frameworks".
- Mahmut Karakaya attended AI for Science Town Hall Workshop at Oak Ridge National Laboratory (August 20–21, 2019).
- Olcay Kursun and Ahmad Patooghy received an NIH INBRE award ($49,138) for their project entitled "On-Chip Neocortical Model of Information Processing for Texture Classification".
- Olcay Kursun and Ahmad Patooghy served as judges at the UCA & Conway Robotics Competition (May 6).
- Olcay Kursun served as a reviewer for the Mitacs Accelerate Fellowship program (Canada).
- Ahmad Patooghy presented two papers, "Fastest: a Concurrent Strategy to Test Components of 3D Network-on-Chips" and "A New Hardware Accelerator for Data Sorting in Area & Energy Constrained Architectures", in the 2019 IEEE 62th International Midwest Symposium on Circuits and Systems (August 4–7, Dallas, TX).
- Michelle Talley served as a committee member of the Girl Power in STEM event (April 26).
- Emre Celebi attended the ABET Institute for the Development of Excellence in Assessment Leadership (August 5–8, Baltimore, MD).
- Emre Celebi and his colleagues published a chapter, "Artificial Intelligence Approach in Melanoma", in a book entitled "Melanoma" by D. E. Fisher and B. C. Bastian, eds., Springer, 2019.
- Emre Celebi and his colleagues published an article, "Social Behavioral Phenotyping of Drosophila with a 2D-3D Hybrid CNN Framework", in the IEEE Access journal.
- Emre Celebi and his colleagues published an article, "A Survey of Feature Extraction in Dermoscopy Image Analysis of Skin Cancer", in the IEEE Journal of Biomedical and Health Informatics.
- Emre Celebi and his colleagues published an article, "DermoDeep: A Classification of Melanoma-Nevus Skin Lesions Using Multi-Feature Fusion of Visual Features and Deep Neural Network", in the Multimedia Tools and Applications journal.
- Emre Celebi and his colleagues published an article, "Deep Attention Model for the Hierarchical Diagnosis of Skin Lesions", in the Proceedings of the 30th IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops.
- Emre Celebi served as an external examiner on a PhD thesis committee (Simon Fraser University, Canada).

- Emre Celebi and his colleagues organized the Fourth ISIC Workshop on Skin Image Analysis in the 30th IEEE/CVF Conference on Computer Vision and Pattern Recognition (June 16–20, Long Beach, CA)
- Emre Celebi was elected to the editorial board of the IEEE Access journal.

Geography

Dr. Stephen O'Connell:

- Environmental Science-P&A major, Lillian McDaniel, attended a dendroecological field week in Cody, Wyoming, from July 20 through July 29.
- William Flatley, along with students Lillian McDaniel, AJ Russell, and Zachary Jewel participated in forest ecology field work in the Sacramento Mountains near Mescalero, New Mexico, for two weeks in July and early August.
- Stephen O'Connell presented materials on using web GIS in education at three teacher development workshops during the month of July: the Arkansas Council for the Social Studies Summer Conference at the Clinton Library, Economics Arkansas's REAL Econ for All Conference at Pinnacle View Middle School, and the EAST Initiative Summer Workshop at the Grand Prairie Center in Stuttgart.

Physics

Dr. Carl Frederickson reported:

- Dr. William Slaton has taken the position of Coordinator of Engineering Physics Starting August 1, 2019.
- Dr. Jeremy Lusk has been hired as a tenure-track Assistant Professor starting Fall 2019.
- Dr. Muatez Mohammed has been hired as a Visiting Lecturer for the 2019/2020 academic year.
- Dr. Carl Frederickson presented a workshop titled "Projects Based Arduino Activities" along with Dr. Bala Maheswaran from Northeastern University at ASEE's 126th Annual Conference and Exposition in Tampa, Florida on June 16th.
- Dr. Andrew Mason made two presentations at the American Association of Physics Teachers Summer Meeting in Provo, Utah July 20-24 and one presentation at the PERC (Physics Education Research Central) meeting July 25th. The titles of his AAPT presentations were: "Attitudes and Approaches to Problem Solving: Applicable to Pre-Post Measurement?" and "Planning IPLS Course Development: Considerations for Different Life Science Majors." The title of the PERC presentation was "Learning Goals and Belief in Lack of Relevance to Major."