

## COLLEGE OF NATURAL SCIENCES and MATHEMATICS

### Minutes of Chairs Council Meeting – October 21, 2013

---

A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, October 21, 2013. All chairs were present except for Dr. Cash. Dr. Reid Adams attended representing the Biology Department. Provost Runge was a guest at the meeting and addressed the council.

#### Agenda Items:

1. Dean Addison reported on the INBRE meeting that took place October 18<sup>th</sup> and 19<sup>th</sup> in Fayetteville.
2. Dr. Runge addressed the group concerning the Programs of Excellence venture. This was the first of several meetings to be held within the college regarding the endeavor to promote programs beyond excellence in STEM. The Provost asked for ideas and opinions with respect to creating new and innovative programs, both within and outside, academics with the intention of setting CNSM apart and above other schools. He asked the chairs what we could do to make our programs unique and exceptional. Provost Runge will be meeting with the other colleges in the near future.

#### Chairs Reports:

##### Biology:

- No report.

##### Chemistry:

- Dr. Mauldin reported Dr. Lori Isom published two research articles during the summer of 2013. The first, entitled *DNA Phosphate Crowding Correlates Protein Cationic Side Chain Density and Helical Curvature* with was published in *Nucleic Acids Research*. The second article was published in *PLoS ONE* with the title of *Cations Form Sequence Selective Motifs Within DNA Grooves Via a Combination of Cation-pi and Ion-Dipole/Hydrogen Bond Interactions*. Both research publications had undergraduate research students as co-authors.
- The Department of Chemistry has added a fourth tutor and now uses two (rather than one as in the past) of the lecture rooms in Laney Hall due to increased demand.
- A second-half-of-the-semester offering of CHEM 1301, Fundamental Chemistry, began October 14<sup>th</sup> at 6:00 p.m. (MW 6-9 PM) and has 28 students enrolled. This course is offered in this format to improve retention of students who are struggling in CHEM 1402 or CHEM 1450.
- Li Chen Chen, a 2013 graduate of the Department of Chemistry, is serving as

Laboratory Coordinator on an interim basis through the end of this academic year.

- Under the direction of Dr. Pat Desrochers, two chemistry students won awards at the INBRE meeting in Fayetteville on October 19, 2013. Julie Davis's oral presentation entitled *Evaluating the Effectiveness of Supported Nickel Scorpionates to Select for Specific Amino Acids* earned the first place. Ryan Rogers' presentation entitled *Computational Investigation of Polymerization by Rhodium Scorpionates* was recognized with an honorable mention.

### **Computer Science:**

- Dr. Frederickson reported that Dr. Tansel Halic has recently received a grant through Rensselaer Polytechnic Institute. The project is titled *Virtual Natural Orifice Transluminal Endoscopic Surgery (NOTES) Simulator (Scarless Surgery)*. He will be developing a virtual surgery environment for training doctors. The first year of funding totals \$68,707.00.
- The Accreditation Board for Engineering and Technology (ABET) will conduct a site visit October 26-29 as part of the renewal process for the accreditation of the BS degree in Computer Science. The Department received initial accreditation from ABET in 2006.

### **Math:**

- Dr. Garimella reported that Dr. Jason Martin, Assistant Professor of Mathematics, and his collaborator, Dr. Michael Oehrtman of the University of Northern Colorado, received a three year \$137,250.00 NSF grant for their project, CLEAR Calculus in the Transforming Undergraduate Education in Science, Technology, Engineering, and Mathematics (TUES) program.
- Dr. Patrick Carmack, Associate Professor of Mathematics, has received a \$70,660.00 subcontract from NIH (NBIB) grant through the University of Texas-Dallas Center to conduct research titled *Integrating Multimodal Brain Imaging to Assess Cognitive Impairment* for the academic years 2012 – 2014.
- Dr. R.B. Lenin, Assistant Professor of Mathematics, has received a \$12,528.00 subcontract through UAMS to analyze the study of research flow for fall 2013.
- Ms. Dana Crouch, an actuarial analyst at AR Blue Shield who received her MS from UCA in applied mathematics in the summer of 2013, presented a seminar on how to become an entry-level actuary on October 2<sup>nd</sup> in the Math Department.

### **Physics:**

- Dr. Frederickson reported that three students made presentations at the 2013 INBRE Conference in Fayetteville. Christopher Church made an oral presentation entitled *Measurement on a Chaotic Circuit*. Chris is mentored by Dr. Addison. Two students Greg Sheffer and Michael Benzmilller presented the poster *Measuring the Changes in Elasticity of Bones Under Space-Like Conditions*. These students are working with Dr. Mehta.