

**COLLEGE OF NATURAL SCIENCES and MATHEMATICS**  
**Minutes of CNSM Mid-Year Retreat – January 10, 2012**

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The Mid-Year Retreat of the College of Natural Sciences and Mathematics was held Tuesday, January 10, 2012. All chairs were present except for Biology chair, Dr. Ben Cash.

**Agenda Items:**

- 1. Dean Runge addressed the group on the importance of adhering to the policy of not allowing a student to continue to attend class after he/she has been dropped for non-payment. Chairs were asked to please discuss this with their faculty members.**
- 2. Dean Runge reminded the chairs of the importance of not posting anything about students on Facebook. Chairs were asked to please discuss this with their faculty members.**
- 3. The use of the Academic Planning Forms (previously distributed) were discussed. The 5-year plans for each department and interdisciplinary program must be in place by April 2013. Substantially completed drafts are to be completed and delivered to the Provost's Office by April of this year. Dean Runge set the deadline of April 2, 2012 for the chairs to submit their drafts to the Dean's Office.**
- 4. The importance of strategic enrollment management (SEM) and the upcoming SEM Works Consulting Team's visit to UCA was discussed.**
- 5. The latest draft of the budget for the new science building was discussed and materials from architect Gene Castin was reviewed.**
- 6. The Willard and Pat Walker Foundation has made a donation of \$50,000 to endow a scholarship for students pursuing degrees in life science or physical science (i.e. biology, chemistry or physics) and Dr. Sue Griffin has generously donated an additional \$50,000 towards the construction and maintenance of a new planetarium.**
- 7. The CNSM Diversity Plan was reviewed and activities related to this plan were tabulated. A report on our activities will be submitted to Deans Maurice Lee and Neil Hattlestad, Co-Chairs of the HLC Monitoring Report Writing Committee.**
- 8. The CoC was joined by the faculty members who had attended the ABET Workshop on Sustainable Assessment in February 2011. Attending that workshop were Drs. Steve Runge, Carl Frederickson, Ramesh Garimella, William Slaton, Patrick Carmack, Rick Tarkka, Don Perry, Yu Sun, Krista Peppers and Ms. Leah Horton. Each department and the Ad hoc Committee on CNSM General Education Assessment delivered progress reports on their assessment efforts. Successes were noted as were obstacles and strategies to surmount those obstacles. It was agreed unanimously that the group would convene again in six months for a follow-up session. The Dean's Office will be funding the travel for a second cohort of faculty members to attend an ABET workshop in February 2012. This group will include mostly new attendees and some people who will attend for a second time. Dean Runge will again be leading this trip.**

## COLLEGE OF NATURAL SCIENCES and MATHEMATICS

### Minutes of Chairs Council Meeting – January 26, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Thursday, January 26, 2012. All chairs were present.

#### **Agenda Items:**

1. Minutes from the 12-12-11 CoC were approved as amended.
2. The SEM Works Consulting visit was discussed. Dean Runge reported on a very productive meeting that included the consultant (Dr. Lynda Wallace-Hulecki), Provost Grahn, Dr. Runge, Dr. Frederickson and Leigh Ann DenHartog. All of the chairs and several CNSM faculty members met with consultants. It was unanimously agreed that many creative and effective concepts will be implemented that will greatly benefit our college and university. The consulting team was on campus January 23 – 26, 2012.
3. A copy of an email concerning the conflict of interest statements and extra income statements from Jack Gillean, UCA Chief of Staff, was distributed and discussed.
4. Copies of the list of students and faculty mentors who received SURF awards for 2012 were handed out to the chairs. Dr. Addison reported that UCA was down in its number of submissions this year and it was agreed that we must be more aggressive in our effort to encourage students to make proposals. Following the SURF proposal format when students apply for internal (department and college-level) grants was discussed. Dean Runge will propose the idea to Dr. Jeff Padberg, Chair of the CNSM Research Committee, so that the committee can provide feedback.
5. The latest cost estimates for the new science building were discussed. Dean Runge asked the chairs to get feedback on the new building by noon on 1-31-12.
6. The current list of the CNSM Advisory Board members was distributed. Dean Runge reported that he has met with enthusiasm from all potential board members. The Dean's office is in the process of finalizing the details and expects to convene an initial board meeting within the next two months.

#### **Miscellaneous Announcements and Reminders:**

1. Dean Runge announced that the Dean's Advisory Board is working on implementation of the plan for college-level faculty awards and for a college awards event. Details will be forthcoming.
2. In an effort to reach a more diverse audience, Dean Runge announced that UCA would be able to advertise positions in *Latinos in Higher Education* next year.

3. Dean Runge announced that he has been appointed to the search committee for the Director of Admissions.
4. Dr. Frederickson reported that he is on the search committee for the Assistant Director of Learning Communities.
5. Dr. Frederickson also announced that the Outstanding Student nominations are due to the college office within the next two weeks.
6. Dr. Frederickson asked the chairs to remind new faculty to use start-up funds by the middle of May.

### **Chairs Reports:**

#### **Biology:**

- Dr. Cash reported that Biology Department's search for the vacant Plant Molecular Biology is progressing. A candidate will be on campus next week for an interview.

#### **Chemistry:**

- Dr. Mauldin reported that he has been appointed to the Registrar's Search Committee.

#### **Computer Science:**

- Dr. Hu reported the Computer Science Department has received a \$10,000 grant from the National Center for Women in IT and Microsoft Research to bridge the gender gap in the discipline. The PIs are Ms. Karen Thessing, Dr. Yu Sun and Dr. Hu. Across the nation, five universities, including UCA, received the award in 2012.
- As the PIs of the early adopter status award of NSF/TCPP (Technical Committee of Parallel Processing) curriculum, Dr. Bernard Chen and Dr. Sinan Kockara received 8 high-end GPUs (Graphic Processing Unit) from the NVIDIA Company. These GPUs are going to be installed to support both the teaching and research for students and faculty.
- Fort Smith based Data-Tronics contributed another \$500 to Computer Science Scholarship Fund.

#### **Math:**

- Dr. Garimella reported that the Math Department has recruited five new graduate assistants for spring 2012.

## Physics:

- Dr. Addison reported that on January 9-12, 2012, Dr. Debra Burris and Physics students, Matt Hankins, Jacob Teffs, and Tristan Odekirk presented results of their research at the 219<sup>th</sup> meeting of the American Astronomical Society held in Austin, Texas.
- At the end of the winter holiday, Physics students Shelby Burns and Ashley Hicks attended the Southeast Conference for Undergraduate Women in Physics. The four-day conference was hosted by the University of Tennessee, Department of Physics.

## COLLEGE OF NATURAL SCIENCES and MATHEMATICS

### Minutes of Chairs Council Meeting – January 30, 2012.

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, January 30, 2012. All chairs were present except for Dr. Addison. Ms. Cheryl Lyons was a guest.

#### **Agenda Items:**

1. Minutes from the 1-26-12 CoC were approved as amended.
2. Minutes from the 1-10-12 CNSM Mid-Year Retreat were approved as amended.
3. Ms Cheryl Lyons, Director of Student Financial Aid, addressed the council on Title IV compliance. Ms. Lyons distributed material titled Title IV Federal Financial Aid Academic Issues to the chairs.
  - She reported that UCA disburses over 100 million dollars of financial aid to students each year and that 89% of UCA's student population receives some type of financial aid.
  - Every four years UCA must apply for eligibility for federal funds. The Gainful Employment program (e.g. certificate programs) was discussed.
  - Documenting student attendance and how the date of dropping a course affects financial aid.
  - The recent changes regarding repeated courses and effects on financial aid were discussed. After a course is taken twice and passed (D or better) it may only be repeated one time and be included in the enrollment status for financial aid purposes. This does not include courses such as Undergraduate Research or Thesis that may be repeated multiple times.
  - Effective 7-1-12 graduate students would no longer be eligible for federal subsidized loans.
  - Along with the extreme importance of full consumer disclosures, the impact of written consortium and contractual agreements was stressed.
  - Ms. Lyons' session with the council of chairs proved to be very beneficial; CNSM is grateful for her participation.

## Miscellaneous Announcements and Reminders:

1. Dean Runge handed out copies of the letter from Dr. Jim Black, President & CEO of SEM Works, summarizing the information gathered at the SEM Works Consulting Visit, conducted January 23<sup>rd</sup> – 26<sup>th</sup> on the UCA campus. Dean Runge emphasized the timeline that has been established and that SEM Works will not be able to accommodate late materials or missed deadlines. Ms. Leigh Ann DenHartog will coordinate the activity for the College.

## Chairs Reports:

### Biology:

- No report.

### Chemistry:

- Dr. Mauldin reported that the Chemistry Department has successfully completed their vacant positions search.

### Computer Science:

- Dr. Hu reported that, after reviewing 70 applications for the open Computer Science position, six applicants have been selected for phone interviews.
- Both the Computer Science Club and the Department have recently conducted their first meetings for this semester.

### Math:

- Dr. Garimella reported that Dr. Clarence Burg, Assistant Professor of Mathematics, had a paper titled *Derivative-Based Closed Newton-Cotes Numerical Quadrature*, published online in the Journal Applied Mathematics and Computation. It will appear in print in this journal in the future.
- The biweekly mathematics seminars for the spring semester will start on February 1<sup>st</sup> at 2:00 p.m. with a talk by Dr. Weijiu Liu, Associate Professor of Mathematics, entitled *Simulating the Role of Store Operated Calcium Entry on Electrical Bursting in Pancreatic Beta-Cells*.
- Dr. Ramesh Gaimella wrote reviews for the paper *Partial Isometries and EP Elements in Banach Algebras* by D. Masic and D.S. Djordjevic for the *American Mathematical Society*.

### Physics:

- No report.

## COLLEGE OF NATURAL SCIENCES and MATHEMATICS

### Minutes of Chairs Council Meeting – February 6, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, February 6, 2012. All chairs were present.

#### **Agenda Items:**

1. Minutes from the 1-30-12 CoC were approved as amended.
2. Safety issues pertaining to ASMSA students on campus was discussed. Dr. Mauldin mentioned a contact at ASMSA who is interested in a possible partnership with UCA. Dr. Mauldin felt that we should explore the liability and safety concerns of such a partnership. It was decided that we would invite Katie Henry, UCA legal counsel, to our next CoC to address this issue as well as other topics relevant to Ms. Henry's areas of expertise.
3. Act 747 institutional guidelines were discussed. Copies of an email from Dr. Clay Arnold were distributed to the chairs. Dr. Arnold had passed on relevant passages from the update by ADHE Associate Director of Academic Affairs, Cynthia Moten. The two sections reviewed by the CoC were *Act 747 Intent and Implementation and Degree Plan Review*. Dr. Addison handed out an example of a completed LON-11R form that must be completed for each degree program. These are due to the Provost by 2-20-12. Chairs were requested to ensure that this form is completed for each degree program under their respective areas.
4. Career Services has requested that CNSM sponsor a table at the annual Internship Banquet. After discussion it was decided that CNSM would not sponsor a table.
5. Dr. Addison gave an update on the UTeach replication site grant proposal. The UTeach site-visit is tomorrow, February 7<sup>th</sup>. The incoming class of 2013 will be the first entering cohort for UTeach; the first graduating class from UTeach will be 2017.

#### **Miscellaneous Announcements and Reminders:**

1. Dr. Frederickson handed out the EAR reports and asked the chairs to make appropriate changes. The data section of the reports should be returned to Dr. Frederickson by Friday, February 10<sup>th</sup>. They are due to the Provost's office March 1<sup>st</sup>.
2. Dean Runge announced that the EPIC Residential College plans are going forward and student recruiting is ongoing. Student applications to enter the program are due February 17<sup>th</sup>.
3. Thirteen CNSM faculty will be attending the ABET Workshop on Sustainable Assessment Practices February 18<sup>th</sup> in Houston, Texas.

4. Dean Runge indicated that the “white board list” (Capital Equipment) needs list in the VP for Finance and Administration office will be updated in March. The definition of capital equipment is items with an expected life of more than one year. The updated lists from each department should be in the Dean’s office no later than February 20<sup>th</sup>.
5. President Courtway is on a speaking tour around the state. Dean Runge asked the chairs to get their best “Top ten things you may not have known about UCA” to the Dean’s office by Monday, February 13<sup>th</sup>.
6. Dean Runge asked the chairs to encourage their faculty to attend President Courtway’s Campus Talks. The next one is scheduled for Thursday, February 16<sup>th</sup> at 3:00 p.m. in COB 107, followed by March 14<sup>th</sup> at 3:00 p.m. in the Student Center Ballroom and April 12<sup>th</sup> at 3:00 p.m. in Ida Waldran Auditorium..

### **Chairs Reports:**

#### **Biology:**

- Dr. Cash reported that he, Drs. Reid Adams, Ginny Adams and Sally Entrekin, along with graduate students, Jason Christian, Chris Naus and Jessie Green, are presenting at the American Fisheries Society Arkansas state meeting this week in Conway.

#### **Chemistry:**

- Dr. Mauldin reported that Dr. Pat Desrochers has been the lead organizer for “STEM Posters at the Capitol” on Wednesday, February 15<sup>th</sup>, at which undergraduate research students from across the state will present their posters to state legislators and high school students.
- The Chemistry Department’s “Laboratory Safety Agreement” is on the Chemistry website. This agreement includes a mechanism for electronic notification of faculty members when their students read and agree to the form’s safety guidelines.

#### **Computer Science:**

- Dr. Hu reported that at the Science Night in Mayflower Elementary on Thursday, February 2<sup>nd</sup>, computer science students Danielle Osborne, Maoyuan Yan and faculty members Karen Thessing, Vamsi Paruchuri and Chenyi Hu worked with elementary school students on computer games developed here at UCA.

#### **Math:**

- Dr. Garimella reported that the Arkansas Science and Technology Authority approved an extension of the MSIT Academy @ UCA for summer 2012. Dr.

Ramesh Garimella and Dr. Uma Garimella are the project directors. Activities for MSIT '12 are being planned for June 2012.

- For the calendar year 2011, the Department of Mathematics awarded 22 undergraduate degrees and 16 graduate degrees. Among the undergraduate degrees awarded, 13 were in math/applied mathematics and the rest were in mathematics education. Among the graduate degrees, six were in MS Applied Mathematics and the rest were in MA Mathematics Education.
- Ms. Sandi Weinert has joined the Department of Mathematics as Administrative Specialist I.
- Dr. Garimella gave the following update on the CCA Grant. The task force working to develop a course description for Quantitative Literacy under the CCA grant met in December and identified a list of topics for inclusion in the course. A sub-committee from the larger group met on January 23<sup>rd</sup> to consider further defining the content of the Quantitative Literacy course. Edits to the document have been made and proposed course description was finalized. Plans are underway to submit this course description to ADHE for consideration by the Higher Education Coordinating Board at its next meeting. The Quantitative Literacy course is intended as an alternative general education course to College Algebra for students who are non-STEM majors or whose degree program does not specifically require College Algebra. Dr. Charles Watson, Associate Professor of Mathematics, is facilitating the work of the CCA Committee to develop the Quantitative Literacy course.

#### **Physics:**

- Dr. Addison reported that physics major, Ashley Hicks, recently visited Lakeside High School near Hot Springs and made presentations on her student research.

# COLLEGE OF NATURAL SCIENCES and MATHEMATICS

## Minutes of Chairs Council Meeting – February 20, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, February 20, 2012. All chairs were present.

### **Agenda Items:**

1. Minutes from 2-6-12 CoC were approved as amended.
2. Building security and safety of students, faculty and staff after hours were discussed. Within CNSM there are several disciplines in which students often work in the building after hours and we need to ensure that our programs allow our students appropriate access and time to work and study, but we must do so in a safe, responsible manner. Lab safety is a particularly important issue. Dr. Cash volunteered to research policies at other universities so that we may craft a policy for CNSM. This matter will be discussed again at a future CoC.
3. The proposed CNSM Seminar Series was discussed. The Dean's Advisory Council is working on the funding and promotion of the venture. The council is currently considering dates for the presentations.
4. Dean Runge announced that the potential dates for the CNSM Advisory Board Meeting are April 9<sup>th</sup>, April 13<sup>th</sup> and April 27<sup>th</sup>. Possible topics for the board meeting were discussed and the best way to organize the meeting for maximum productivity. It was decided that CoC members will submit topic ideas and decisions will be made on the agenda within the next two weeks so that material can be sent out to the board members well in advance of the meeting.
5. Dr. Frederickson presented a draft of the CNSM Promotion of Lecturers guidelines for the chairs to consider. The guidelines were developed by an ad hoc committee consisting of a lecturer from each department. The chairs were asked to send suggestions to Dr. Frederickson.

### **Miscellaneous Announcements and Reminders:**

1. Dr. Frederickson reported that the following topics were covered at the Sponsored Programs CLADs (College Level Associate/ Assistant Deans) meeting earlier in the day:
  - Database Update & Access to View/Run Reports Trial
  - Quality Circle Peer Review Guidelines
  - New Policy & Form: Effort Commitments During No-Cost Extension Periods
  - New Policy & Form: Summer Effort Contributed to a Grant Without

- Compensation to Meet Cost-Sharing Requirements
- Special Project: SPO as a Central Repository for all Undergrad and Graduate Funding Opportunities to be housed on the SPO website (Scholarships, Fellowships, Grants, Professional Association Awards, etc.)
  - Special Project: SPO as a Central Repository for a list of all faculty interested in participating in collaborative grant projects. SPO will develop a searchable database in-house by research interests.
2. Dean Runge reminded the chairs to get their “whiteboard list” (capital equipment needs) to the Dean’s office by Tuesday, February 21<sup>st</sup> so that he may put together a composite list to send to the Provost. Dean Runge asked Dr. Frederickson to send the chairs the list submitted last year.
  3. Dean Runge announced that concurrent enrollments for the university are expected to remain stable for the 2012-13 academic year.
  4. Dean Runge announced that the HLC Monitoring Report team, Co-chaired by Deans Hattlestad and Lee, have proposed the following abbreviated mission statement for UCA:  
“The University of Central Arkansas dedicates itself to academic vitality, integrity, and diversity.”
  5. Dean Runge reported on the ABET Assessment Workshop that he and twelve CNSM faculty attended Saturday, February 18<sup>th</sup> in Houston, Texas. The consensus was this was a very productive trip.

### **Chairs Reports:**

#### **Biology:**

- Dr. Cash reported that Drs. Ginny Adams, Rick Noyes, Choinski and Ms. Leah Horton attended the ABET Assessment Workshop in Houston on February 18<sup>th</sup>.
- Dr. Bhupinder Vohra has been awarded a \$25,000 grant from INBRE for the purchase of the components to upgrade the Olympus IX71 at UCA.

#### **Chemistry:**

- Dr. Mauldin reported that he and Drs. Isom and Tarkka attended the ABET Assesment Workshop in Houston on February 18<sup>th</sup>.

#### **Computer Science:**

- Dr. Hu reported that he attended the ABET Assessment Workshop in Houston on February 18<sup>th</sup>.
- The Computer Science Department conducted its February monthly meeting on February 17<sup>th</sup>. Acxiom representative Michael Cross attended as a guest. Acxiom-

UCA collaborations as related to the computer science department were discussed.

- Ms. Karen Thessing was recently invited to and participated in an Introduction to Computer Science in Education event at UT Austin.

**Math:**

- Dr. Garimella reported that he and Dr. Jason Martin attended the ABET Assessment Workshop in Houston on February 18<sup>th</sup>.

**Physics:**

- Dr. Addison reported that the UTeach proposal has been completed and successfully delivered.
- Dr. Debra Burriss has been awarded the prestigious 2012 Educator Recognition Award by the AGATE (Arkansas for Gifted and Talented Education) Board of Directors. The award was presented to Dr. Burriss at the AGATE Awards Banquet on February 9, 2012. Congratulations, Dr. Burriss!
- Dr. Addison reported that Drs. Nancy Austin and Balraj Menon attended the ABET Assessment Workshop in Houston on February 18<sup>th</sup>.
- Dr. Scott Austin was an invited speaker at the Darwin Day Conference 2012 at UALR on February 11<sup>th</sup>. Dr. Austin's topic was *The Evidence of the Age of Earth and the Age of the Universe*.

# COLLEGE OF NATURAL SCIENCES and MATHEMATICS

## Minutes of Chairs Council Meeting – March 12, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, March 12, 2012. All chairs were present. The council welcomed Dr. Steve Addison as the new interim dean and Dr. Ginny Adams as the new interim associate dean.

### Agenda Items:

1. Minutes from the 2-20-12 CoC were approved as amended.
2. The forms for academic planning for departments/programs and program goals were distributed. Dean Addison pointed out that the completed draft of the plans is due by May. There was discussion about the possibility of the forms being updated and Dean Addison said that he would look into the matter. This will be addressed at the next CoC.
3. The implementation of emergency procedures for the buildings within CNSM was discussed. Dean Addison wants plans in place by the end of the semester.
4. The council discussed the College Advisory Board meeting that is taking place April 13<sup>th</sup>. Suggestions for topics for the board members to consider at the meeting were made.
5. Dean Addison announced that positions requests are due to the Dean's office by April 9<sup>th</sup>. A justification letter must accompany the request. The Provost will no longer interview faculty candidates but Dean Addison suggested that the candidates visit with Dr. Tim Atkinson, Director of Sponsored Programs.
6. Dean Addison asked the chairs to recommend two names from each department to be considered for the search committee for the ongoing Director of International Engagement search.
7. The search for the Admissions Director position was discussed. Dean Addison asked the chairs to look at program level admission standards.

### Chairs Reports:

#### Biology:

- Dr. Cash reported that Biology student Kyle Hurley presented his undergraduate research titled *Do Headless Males Really Make Better Lovers? Sexual Cannibalism in Carolina Mantids* at the joint meeting of SE and SW branches of the Entomological Society of America in Little Rock on March 7<sup>th</sup>. Kyle won first place in the undergraduate division that included a \$100 cash prize.

### **Chemistry:**

- Dr. Mauldin reported that the Department of Chemistry is putting together its report for the five-year review for approval status by the American Chemical Society. As part of this report, a list of publications is required. Of particular note is that in the first three months of 2012, chemistry faculty members have either published, or have in press, five journal articles and one book chapter!

### **Computer Science:**

- Dr. Hu reported that the Arkansas Academy of Computing awarded \$1,500 scholarships to three UCA computer science students this year.
- After interviewing two viable candidates for the Computer Science position, the department is ready to extend an offer.

### **Math:**

- Dr. Garimella reported that Dr. Jean McGehee received a \$49,561 ADHE grant titled *Geometry: an Implementation of Common Core Standards* for professional development of high school geometry teachers.
- A paper coauthored by Dr. Jason Martin and his colleagues titled *Students Reinvention of Definitions of Series and Pointwise Convergence*, was recognized with an "honorable mention" for the best paper award at the Fourteenth Conference of Research in Undergraduate Mathematics Education held at Portland, Oregon.
- Dr. Jungeun Park and Dr. Jason Mason presented papers at the Research in Undergraduate Mathematics Education (RUME) Conference held between February 23<sup>rd</sup> and 25<sup>th</sup> in Portland, Oregon.
- Dr. Jean McGehee and Dr. Carolyn Pinchback presented papers at the 39<sup>th</sup> Annual Meeting of Research Council on Mathematics Learning (RCML) held between February 23<sup>rd</sup> and 25<sup>th</sup> in Charlotte, NC.
- Dr. Jean McGehee was elected as the Treasurer of the RCML Conference.

### **Physics:**

- Dr. Addison reported that on March 10<sup>th</sup> SPS faculty advisor, Dr. Will Slaton, took four members of the UCA Society of Physics Students (SPS), Nick Martinez, Nirav Patel, Ashley Hicks and Shelby Burns, to the annual meeting of the Zone X SPS chapters at Henderson State University in Arkadelphia. Students from SPS chapters in Arkansas, Tennessee, Mississippi and Louisiana gathered to report on the events, activities, and outreach from the previous year. All students participated in a panel discussion on physics careers, a set of focus groups on fundamental RSO ideas (fundraising, fellowship, outreach, and creating a Zone community). There was also an opportunity for students to present research. Physics major Nick Martinez presented a poster on his research with Dr. Walker.

## **COLLEGE OF NATURAL SCIENCES and MATHEMATICS**

## Minutes of Chairs Council Meeting – March 26, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, March 26, 2012. All chairs were present.

### Agenda Items:

1. Minutes from 3-12-12 were approved as amended.
2. Dean Addison distributed the micro sites, featuring program descriptions, developed by the SEM Works consulting team for biology, chemistry, computer science, environmental science, mathematics, and physics. The micro site for enrollment management was also distributed as an example. Dean Addison asked the chairs to make any needed corrections by Wednesday, March 28, 2012.
3. The draft of the CNSM Advancement Guidelines for Lecturers, drafted 2-1-12, was discussed. Dean Addison said that he would meet with the committee to cover the changes discussed in the CoC.
4. Various ways to promote and establish college identity were discussed. It was agreed that Dean Addison would approach the alumni association about establishing a CNSM chapter. The 20<sup>th</sup> year anniversary fundraiser was discussed. One marketing idea put forth was CNSM t-shirts.

### Chairs Reports:

#### Biology:

- No report.

#### Chemistry:

- Dr. Mauldin reported that 5 faculty members of the Chemistry Department and 17 chemistry students are presenting their research at the national meeting of the American Chemical Society this week in San Diego, California.

#### Computer Science:

- No report.

#### Math:

- Dr. Garimella reported that Dr. Patrick Carmack, Assistant Professor of Mathematics at UCA, and his colleague Dr. Jeffery Spence of the University of Texas Southwestern Medical Center received a two-year R21 grant in the amount of \$392,000 from the *National Institute of Biomedical Imaging and Bioengineering*, which is a part of NIH. UCA's share of this grant is \$92,000.

- Ms. Rebecca Smith, a senior mathematics major at UCA, has been accepted to the 2012 Summer Institute for Training in Biostatistics (SIBS) at Washington University in St. Louis. The SIBS is a 6-week all expense paid training program sponsored to pursue careers in the field of biostatistics.
- On March 10<sup>th</sup> approximately 140 high school students from central Arkansas participated in the Arkansas Council of Teachers of Mathematics Regional Contest held in the Department of Mathematics. The contests were held in Algebra I, Algebra II, Geometry, Pre-calculus and Trigonometry. Trophies were presented to the top three finishers in each category. Dr. Carolyn Pinchback, Ms. Loi Booher, Dr. Charles Watson, Dr. Steve Butcher, and Mr. Jon Sumner, and several graduate students in mathematics assisted with proctoring, grading, and trophy presentation.
- Last fall, Dr. Danny Arrigo, Professor of Mathematics, was invited by the Department of Mathematics at Tennessee Technological University to review its masters program. Last month during his onsite visit, Dr. Arrigo met with the mathematics faculty members and graduate students to examine the various aspects of the program for his official report.

#### **Physics:**

- Dr. Carl Frederickson has been appointed interim chair of the Physics and Astronomy Department.
- Physics student, Matt Hankins, has been awarded a Research Experience for Undergraduates (REU) grant at Cornell University in Ithaca, New York. The REU is funded by the National Science Foundation (NSF).
- Physics student, Ashley Hicks, has been awarded a Research Experience for Undergraduate (REU) grant at the University of Illinois at Champaign-Urbana. The REU is funded by the National Science Foundation (NSF).

## COLLEGE OF NATURAL SCIENCES and MATHEMATICS

### Minutes of Chairs Council Meeting – April 9, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, April 9, 2012. All chairs were present.

#### Agenda Items:

1. Minutes from 3-26-12 CoC were approved as amended.
2. The CNSM Advisory Board was discussed. The meeting will be Friday, April 13th, in MCST 115 ending with dinner at the President's house.
3. Emergency plans were discussed. Dean Addison pointed out that evacuation of Lewis Science Center would be the biggest challenge. The closest exits will have to be prominently identified. Another factor will be identifying "back-up people."
4. Dr. Frederickson is set up to process orders for the MFAT. Chairs should get their numbers to him as soon as possible.
5. Dean Addison reminded the chairs that academic plans are due to the Dean's Office by the end of May and due to the Provost by June 15<sup>th</sup>.

#### Chairs Reports:

##### Biology:

- Dr. Cash reported that Biology faculty member, Dr. Ben Rowley, has been awarded a \$3000 UCA Foundation Grant to be used to provide microbiology and flow cytometry supplies for the project titled *Introducing Flow Cytometry Technology and Applications to High School Students*. The goal of the project will be to initially train high school instructors in the technology and the developed exercise. Then, in conjunction with those trained teachers, we will perform the exercise with their students.

##### Chemistry:

- Dr. Mauldin reported that on Thursday, April 5<sup>th</sup>, the Department of Chemistry met to decide on awardees for four awards: Jerry Manion Award, Distinction in Academics, Distinction in Research, and Distinction in Service. The department also formulated and approved guidelines and criteria for the four awards.
- The number of UCA graduates with four-year degrees in Chemistry appears to be increasing. After 10 and 11 graduates in 2009 and 2001, respectively, we had

14 graduates last academic year and will have 14 again this year. Based on preliminary enrollments in Physical Chemistry for fall of 2012, we predict that we will have 18 students who will graduate in 2012-2013 academic year. Not only do our numbers appear to be increasing, but also chemistry faculty members point to several indicators that the overall quality of our graduation class this year is particularly strong.

### **Computer Science:**

- Dr. Hu reported that the Computer Science Department is receiving \$13,500 from Google to continue its CS4HS Workshop to train in service and pre-service teachers from July 9-11, 2012.
- At the 50<sup>th</sup> ACM South-East Conference (acceptance rate 57%) in Tuscaloosa, AL, March 29-31, 2012, Drs. Paul Young and Chenyi Hu presented two co-authored papers. These two papers appeared in the conference proceedings:
  - *Evaluation of Issue-Tracker's Effectiveness for Measuring Individual Performance on Group Projects* by Paul Young, Vincent Yip, and Rathinasamy Lenin; page 89-94.
  - *Bandwidth Variability Prediction with Rolling Interval Least Squares (RILS)* by Pavan Marupally, Vamsi Paruchuri, and Chenyi Hu; page 209-213.
- Levey L. Williams, a recruiter (Campus Relations) for Wal-Mart Information Services Division from the corporate offices will be on campus Wednesday and Thursday, April 11<sup>th</sup> and 12<sup>th</sup>. A brunch sponsored by Wal-Mart will be served in MCST 115 at 9:30 a.m.
- The Computer Science Department job search has been closed successfully with the hiring of Mr. Tansel Halic, who will complete his doctoral degree this summer.

### **Math:**

- Dr. Garimella reported that Crystal Spellman, a second year student in the MS Applied Math program received the 2012 outstanding graduate teaching assistant award.
- Zachary Pharam and Zachary Stallings, both senior applied math majors, are the co-winners of the 2012 O.L. Hughes Award. The award was established in the memory of the late O.L. Hughes. Who was the chair of the Math Department in the 1970's to the mid 1980's.
- Haley Lafoon (a junior BSE major) and Lindsey Parker (a junior BS applied math major), are the co-winners of the 2012 Dorothy Long Award. The award is co-sponsored by the Delta Zeta Sorority and is given in the honor of the late Dorothy Long, who was a mathematics faculty member and the Dean of Women at UCA in the 1960's.
- A book review written by Dr. Charles Watson, Associate Professor of Mathematics, on *Using Classroom Assessment to Improve Student Learning* by Anne

M. Collins, appeared in the April 2012 issue of the NCTM publication *Mathematics Teacher*.

**Physics:**

- Dr. Frederickson reported that Jackson Fliss (BS, Physics and Mathematics graduate, December 2011) and Tristan Odekirk (senior Physics major) attended the spring meeting of the American Physical Society in Atlanta, GA, March 31 – April 3. Jackson presented a paper titled *Variational Symmetries and Conservation Laws of the Coupled Maxwell-Dirac Equations*, coauthored with Dr. Balraj Menon.
- The SPS held its spring picnic on Saturday, April 7<sup>th</sup> at the Cadron Settlement Park. Hot dogs and hamburgers were shared with students from the UCA ACS chapter. Faculty from both Physics and Chemistry attended.

## COLLEGE OF NATURAL SCIENCES and MATHEMATICS

### Minutes of Chairs Council Meeting – April 23, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, April 23, 2012. All chairs were present except for Dr. Mauldin. Dr. Melissa Kelley represented the Chemistry Department.

#### **Agenda Items:**

1. Minutes from the 4-9-12 CoC were approved as amended.
2. The recent CNSM Advisory Board meeting was discussed. It was agreed that the all-day event was highly successful. Dates for future meetings were discussed. It was suggested that another all-day meeting be held this fall and half-day meeting be held next spring. Dean Addison asked the chairs to be considering topics to be addressed at the next meeting.
3. The Student Research Symposium was discussed. The symposium was held Friday, April 20<sup>th</sup> in the McCastlain Ballroom. The event has flourished over the years with an ever-growing attendance level. It was decided to change the venue next year to the Student Center Ballroom in order to accommodate the growth.
4. Dean Addison reminded the chairs that the forms for strategic planning are due to the Dean's Office by the end of May.
5. Dean Addison requested information about any English deficiency results and for a sense of the degree of satisfaction in evaluation measurements. The information will be forwarded to Clay Arnold for the ADHE report.
6. Dean Addison reported that the Provost will establish a General Education Task Force this summer and has asked the Deans to nominate a faculty member from each college.

#### **Chairs Reports:**

##### **Biology:**

- Dr. Cash reported that Wilson Alobuia has been awarded the Biology 2011-2012 Department Best Departmental Thesis Award. Mr. Alobuia's thesis was titled *Degeneration is Key Component of Neuronal Death in Amyloid-beta Toxicity*. Dr. Bhupinder Vohra was his mentor.
- Biology faculty member, Dr. David Dussourd, has been named a finalist for the 2012 Teaching Excellence Award.

## Chemistry:

- Dr. Kelley reported that Tsung Yen Chen has been given the 2011-2012 Best Departmental Thesis Award for his thesis titled *Influences of Silver and Gold Nanostructures on Adsorption Characteristics of Organic Molecules*. Dr. Don Perry served as his mentor.
- The Chemistry Department now has the MFAT results of 12 graduating seniors from the 2011-2012 (fall 2011 and spring 2012) academic year and that the average overall score is 159, which is at the 75<sup>th</sup> percentile.

## Computer Science:

- Dr. Hu reported that Cody Hudson and Brendan Lee won the 2012 Outstanding Computer Science Students Awards.
- Computer Science faculty member, Lev Igolnikov, will be honored May 8<sup>th</sup> with a retirement reception in the Computer Science Department on the third floor of MCST.
- Cody Hudson won the 2011-2012 Best Departmental Thesis. His thesis was titled *Predicting 3D Structure Via the Adaptively-Branching GGK-DF Model*. Dr. Bernard Chen mentored Mr. Hudson.

## Math:

- Dr. Garimella reported that Mathematics faculty member, Dr. Weijiu Liu, has been named a finalist for the 2012 Research, Scholarship and Creative Activity Award.
- Aaron McMoran, first year MS student in applied mathematics, won second place for his poster *Modeling Patient Flow in an Outpatient Clinic* in the graduate poster presentation session at the Arkansas Academy of Sciences Conference held on April 13<sup>th</sup> on the campus of the Southern Arkansas at Magnolia. Aaron was mentored by Dr. Lenin on this project, which received funding from UAMS.
- Thirteen undergraduates and two MS applied mathematics students are expected to receive their degrees at the spring commencement.
- The fifth annual summer workshop in mathematics and related sciences for high school students, known as MSIT '12 will be held on the UCA campus beginning July 16<sup>th</sup>. This week-long activity, organized by Drs. Ramesh and Umadevi Garimella, received a funding of \$7,900 from the Arkansas Science and Technology Authority (ASTA).
- The Math Department received authorization to fill 17 graduate teaching assistantships for AY 2012-13. Each GTA carries a 9-month stipend of \$9,000 and a tuition waver of \$5,100 for the academic year.
- The Math Department will propose to replace the existing 5+5+3 calculus sequence to 4+4+4 beginning spring 2013.

- On April 28<sup>th</sup>, the Math Department will host the Arkansas Council of Mathematics Teachers State Contest. Approximately 350 high school students from across the state are expected to participate in various math competitions. Awards will be given to the top three finishers in each category.

### Physics:

- Dr. Frederickson reported that Physics faculty member, Dr. Debra Burris, has been named as a finalist for the 2012 Public Service Award.
- Dr. Azida Walker and Senior Physics major, Nick Martinez, attended the Arkansas Academy of Sciences meeting at Southern Arkansas University on April 13<sup>th</sup>. Nick received the 3<sup>rd</sup> place award for poster presentations in the undergraduate-all discipline category for his poster entitled *Electrical and Physical Properties of Micropipettes Pulled from Borosilicate Glass*.
- Drs. Debra Burris and Scott Austin and four students attended the 42<sup>nd</sup> Annual Mid-American Regional Astrophysics Conference at the University of Kansas April 12-14<sup>th</sup>. Dr. Burris' students each presented posters:
  1. Jacob Teffs, *A Survey of Abundances in Metal-Poor Galactic Halo Stars*
  2. Matthew Hankins, *The Possible Significance of the Point Remove Mound Complex*
  3. Tristan Odekirk, *The Impact of Scattering in the UV on the Abundance Determination of Yttrium in Galactic Halo Stars*
  4. Steven Clark, *Lanthanum Abundances from Lines in the Near UV Considering the Effects of Scattering*
- Drs. Burris, Frederickson, and Mehta and four students attended the 20<sup>th</sup> Annual Arkansas Space Grant Symposium at the Winthrop Rockefeller Institute on Petit Jean on April 20<sup>th</sup>. All four of the students made oral presentations during the morning session, Dr. Burris made an oral presentation during the afternoon session.
  1. Jacob Teffs, *A Survey of Silver Abundances in Metal-Poor Galactic Halo Stars*
  2. Matthew Hankins, *The Possible Significance of the Point Remove Mound Complex*
  3. Tristan Odekirk, *The Impact of Scattering in the UV on the Abundance Determination of Yttrium in Galactic Halo Stars*
  4. Nirav Patel, *Elemental Analysis of Hard Tissue Using EDS Spectroscopy and Shear Stress Analysis*
  5. Dr. Burris, *Geocaching Across the Curriculum: Integrating the Physical Sciences in GT Curriculum at Atkins Middle School*
- Niravkumar Patel was selected the recipient of the 2011-2012 Physics Best Departmental Thesis Award. His thesis was titled *Elemental and Strength Analysis of Bones Introduced to Simulated Microgravity*. Dr. Rahul Mehta mentored Mr. Patel.

## **COLLEGE OF NATURAL SCIENCES and MATHEMATICS**

### **Minutes of Chairs Council Meeting – May 7, 2012**

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, May 7, 2012. All chairs were present.

#### **Agenda Items:**

1. Minutes from the 4-23-12 CoC were approved as amended.
2. Dean Addison commended the college faculty on winning all three of the faculty awards presented at the annual service awards ceremony for 2012.
3. Dates for the annual chairs' retreat were discussed and it was decided that the retreat will take place Monday, June 18<sup>th</sup>, here on campus in the MCST boardroom.
4. The scheduling of council of chairs' meetings for the summer was discussed.
5. Dean Addison announced that the CNSM Uteach proposal was successful. UALR and U of A-Fayetteville also submitted successful proposals. Dean Addison and two CNSM faculty members will attend the 6<sup>th</sup> Annual UTeach Conference in Austin, Texas on May 30 – June 1<sup>st</sup>. There will also be four conference calls over the summer with core team members.
6. Dean Addison asked the chairs to get information about thesis defenses into the Dean's Office early as possible so that the date may be put on his calendar. In addition, Dean Addison asked the chairs to send the draft for the thesis to him as soon as possible for him to review.

#### **Chairs Reports:**

##### **Biology:**

- Dr. Cash reported that Dr. David Dussourd won the Teaching Excellence Award at the 59<sup>th</sup> Annual Service Awards ceremony held April 25, 2012.

##### **Chemistry:**

- Dr. Mauldin reported that on April 26<sup>th</sup> the Department of Chemistry approved a departmental research application procedure, on a one-year trial basis, for assigning students to open research positions.
- At the same meeting, the department designated faculty subcommittees for developing performance indicators (and associated rubrics) to assess student learning outcomes, to be completed by the end of fall semester of 2012.

### **Computer Science:**

- Dr. Hu reported that Dr. Bernard Chen delivered an invited presentation at IBM Watson Lab on May 4<sup>th</sup>.
- Ms. Karen Thessing will participate in the 2012 National Center for Women & IT(NCWIT) Summit in Chicago in May and present the UCA Computer Science program.
- The Computer Science Department faculty had the annual retreat on April 27<sup>th</sup>.
- Dr. Hu has been reappointed by the House Speaker as a member of the State Cyber-Infrastructure Taskforce (a legislative committee).

### **Math:**

- Dr. Garimella reported that at its recent meeting, the ADHE approved, effective immediately, offering the Quantitative Literacy (QL) course with full transferability as an alternate general education mathematics course for those students whose curricula do not require College Algebra. This is a major policy change with respect to mathematics component of the general education courses. Dr. Charles Watson, Associate Professor of Mathematics, led the efforts on behalf of the Math Department at two and four year institutions in the state to recognize QL as an alternate to the College Algebra for non-STEM majors.
- A paper coauthored by Dr. Patrick Carmack titled *Key Properties of D-optimal Designs for Event-Related fMRI Experiments with Application to Nonlinear Models* was accepted for publication in *Statistics in Medicine*.
- Thus far, the Math Department has received twenty applications for the open visiting position. Review of applications by the Search Committee will begin on May 10<sup>th</sup>.
- Dr. Weijiu Liu was awarded the Research, Scholarship, and Creative Activity Award at the Annual Service Awards ceremony held April 25<sup>th</sup>.

### **Physics:**

- Dr. Frederickson reported that the annual senior breakfast held last week was a success and enjoyed by all. State Representative Stephen Meeks was a guest at the breakfast.
- Dr. Frederickson discussed issues with contract students. The consensus of the council of chairs was that every contract student should have priority in registration. This measure could tie evaluations to registration. Dr. Frederickson will bring the matter before the Academic Council.
- Physics faculty member, Dr. Debra Burris, was awarded the Public Service Award at the Annual Service Awards ceremony held April 25<sup>th</sup>.

# COLLEGE OF NATURAL SCIENCES and MATHEMATICS

## Minutes of Chairs Council Meeting – June 11, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, June 11, 2012. All chairs were present except for Dr. Frederickson. Dr. Menon represented the Physics Department. Dr. Uma Garimella attended the meeting.

### Agenda Items:

1. Minutes from the 5-7-12 CoC were approved as amended.
2. The issue of data security was addressed by Dean Addison.
3. The agenda of the Chairs' Retreat was discussed. The retreat is scheduled for Monday, June 18<sup>th</sup> here on campus.
4. Dean Addison announced that Dr. Kurt Boniecki has been appointed as the Associate Provost for Instructional Support and Dr. Wendy Castro has been appointed as Director of Assessment.

### Chairs Reports:

#### Biology:

- Dr. Cash reported that the MCAT prep course presented during May intersession by Roger Wainwright was a success.

#### Chemistry:

- Dr. Mauldin reported that laboratory safety agreements for Upward Bound, UCA Challenge, and visiting high school research students have been developed by the Department of Chemistry and approved by Katie Henry, Associate General Counsel. Katie Henry provided a legal release (waiver of liability) form to be signed as well. Both forms require the signature of a parent or guardian.
- The five-year comprehensive review report for certification by the American Chemical Society has been submitted. The ACS requires annual reports that are not as extensive. Compared to the last comprehensive review five years ago, the ACS asked for much more information, particularly concerning assessment and safety.

#### Computer Science:

- Dr. Hu reported that during the month of May, Drs. Sinan Kockara and Bernard Chen visited the School of Software at Yunnan University in China to continue the collaboration initiated by Provost Runge.

- Dr. Victor Sheng received a \$16,000.00 Research Experience for Undergraduates supplementary award from the National Science Foundation (NSF) for his project to involve undergraduates.

### **Math:**

- Dr. Garimella reported that Dr. Ningjun (Nina) Ye will join the Math Department as a Visiting Assistant Professor starting this fall. Dr. Ye was a visiting professor at Southern Mississippi University last year. She has undergraduate degrees in both computer science and English and a Masters degree in math, with a Ph.D in Math Education.
- Drs. Clarence Burg and Long Le received tenure and promotion to the rank of associate professor effective August 2012.
- The Math Department has awarded all 17 GTAs for the 2012-13 AY. There are three more students left in the pool who have applied for an assistantship. Other sources of funding are being sought to award assistantships to these three students.
- Effective immediately the title of Math 1360 has changed to Quantitative Literacy.
- The schedule for the Math Department 2012 summer activities is as follows:
  1. ACT prep sessions in math and science for the STEM Institute (June 3 – 29).
  2. Upward Bound–Math (June 11 – July 13).
  3. Praxis I-Math training for the participants of the Partnership for Transition to teaching (June 30 – July 19).
  4. Funded Geometry workshops by Dr. Jean McGehee (July 9 – 20).
  5. MSIT'12 (July 16 – 20).

### **Physics:**

- Dr. Menon reported that Dr. Frederickson was attending a Physics Department Chairs Meeting and a thriving Physics Department Workshop in Washington D.C. this week.

### **STEM Institute**

- Dr. Uma Garimella reported that the STEM Institute is conducting MATH Core Team training in Old Main. Drs. Linda Griffith and Belinda Robertson are presenting Common Core State Standards in Mathematics to 30 grade 3-5 teachers from five school districts.
- The STEM Institute has close to 80 high school students going through the College and Career preparation program. Six UCA faculty from the University College, the Department of Biology and the College of Education and four teachers from Vilonia School are teaching the course. Admissions and Career Services are doing the presentations.

- Twenty-five teachers will be coming to campus from June 18<sup>th</sup> – 23<sup>rd</sup> to go through science content training. The STEM Institute is collaborating with physics faculty member, Dr. Andrew Mason and biology faculty member, Mr. Jerry Mimms, on this project.
- The STEM Institute is collaborating with Arkansas Science Technology Authority (ASTA) and the University of Arkansas-Fayetteville to facilitate a one and half day professional development program for the Arkansas ASSET Initiative, a National Science Foundation EPSCoR project. Ten teachers will receive training on alternative sources of energy and a stipend of \$250.00.

# COLLEGE OF NATURAL SCIENCES and MATHEMATICS

## Minutes of Chairs Council Meeting – August 13, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, August 13, 2012. All chairs were present.

### **Agenda Items:**

1. Minutes from the 6-11-12 CoC were approved as amended.
2. The recent Board of Trustees retreat that reviewed the need for a new science building was discussed.
3. The key policy on campus was discussed. Dean Addison indicated that Lewis Science Center would be getting 10 real estate lock boxes but that such boxes will not work in the Math/ Computer Science building.
4. Travel procedures using the new travel credit card were discussed. Dr. Ginny Adams explained that she would be conducting travel workshops for CNSM faculty during the fall and spring semesters. Dean Addison reminded the chairs that a direct deposit form must be submitted in order to get reimbursement for travel. Dr. Addison asked the chairs to remind their faculty that a person can no longer buy their airline ticket using a personal credit card.
5. The Ph.D program in leadership was discussed. Dr. Rhonda McClellan has been hired as the new director of the program.

### **Announcements:**

1. The following people attended a UTeach workshop at the University of Texas in Austin, July 23<sup>rd</sup>-25<sup>th</sup>: Steve Addison, Gary Bunn, Jerry Mimms, Jean McGehee and Audie Alumbaugh. The on-site UTeach visit is scheduled for October 1<sup>st</sup> and 2<sup>nd</sup>.
2. Dean Addison announced that as a result of the public commentary period on the new teacher licensure standards, life science would be separate from earth science.
3. Two spreadsheets are being sent from the Advising Center with SOAR contact information. Dean Addison encouraged the chairs to respond to the students by email, fostering their interest in attending UCA.
4. Dr. Adams announced that in addition to the travel workshops that she will be conducting, she will also be organizing workshops on Banner, purchasing (grants) and, in conjunction with Leigh Ann DenHartog, advising.

## **Chairs Reports:**

### **Biology:**

- No report.

### **Chemistry:**

- Dr. Mauldin reported that the Department of Chemistry welcomes two new tenure-track faculty members: Dr. Bryce Marquis and Dr. Kristin Dooley.
- The Chemistry Department congratulates Dr. Karen Steelman on the approval of a sabbatical request for the spring and fall semesters of 2013.
- Safety showers, eyewash stations, fire extinguishers, fire blankets, and exhaust fans are in the process of being installed in our two research labs in Prince (PR 135 and 136).
- Under the direction of Dr. Pat Desrochers, student, Ryan Rogers, presented a summary of his work from this summer at the Central Arkansas Undergraduate Research Symposium 2012, First Annual Meeting. Ryan demonstrated the use of microwaves for the efficient synthesis of scorpionate anchors on solid supports. These anchored scorpionates were shown to give functional complexes with chromium (III), cobalt (II), and nickel (II) ions. His work was funded in part from our NSF award and from a UCA STEM research award. Ryan will be a junior chemistry major in the fall.

### **Computer Science:**

- Dr. Hu reported that fifteen teachers participated in Computer Science for High Schools (CS4HS) at UCA from July 9<sup>th</sup> – 11<sup>th</sup>. The UCA Computer Science Department has been a CS4HS site sponsored by Google since 2011. Faculty and staff member involved this were: Bernard Chen, Chenyi Hu, Sinan Kockara, Michael Nooner, Mark Smith, Karen Thessing, and Diana Watkins.
- Six high school students participated in the Game Camp from July 11<sup>th</sup> – 13<sup>th</sup> at UCA. The camp was offered by Drs. Chen and Kockara.
- Ten undergraduate students successfully completed the ten-week long 2012 NSF/REU program HIT @UCA. Faculty / staff members and graduate students involved were: Crawford, Hudson, Kockara, Nooner, Paruchuri (PI), Sheng, Stovall, Sun (co-PI) and Young.
- Invited by the Institute for Computing in Science (ICiS) at the Argonne National Lab, Dr. Hu participated in the ICiS Future of the Field Workshop from August 4<sup>th</sup> – 11<sup>th</sup> in Utah.

### **Math:**

- Dr. Garimella reported that six students received the MA degree in Mathematics Education at the 2012 summer commencement last week. Graduates, Ms. Kasey

Ballard and Ms. Martha Watkins will join the Departments of Mathematics, respectively, at Arkansas Tech and the University of Arkansas at Fayetteville as full-time instructors. Other graduates have accepted jobs at high schools in Arkansas and Washington states. So far the department had awarded eight graduate degrees this year and expect to award five more in December.

- For the AY 2012-13, the Math Department recruited a record 20 full-time graduate assistants, of which 12 are new students. Overall, six students are pursuing an MA degree in Mathematics Education and the remaining 14 are pursuing MS degrees in Applied Mathematics.
- Dr. Jean McGehee, Associate Professor of Mathematics, conducted geometry workshops for teachers in central Arkansas from July 9<sup>th</sup>-11<sup>th</sup> and July 16<sup>th</sup>-19<sup>th</sup>. The workshops will continue later fall. The workshops were part of a \$49,921.00 project "Geometry and the Implementation of the Common Core Standards", funded by the Arkansas Department of Higher Education. Eighteen middle and high school geometry teachers attended the workshops that were held in the Department of Mathematics at UCA.
- The fifth annual summer program for high school students known as MSIT'12 was held during the week of July 16<sup>th</sup>-20<sup>th</sup> in the Department of Mathematics. The program received \$7,500.00 funding from the Arkansas Science and Technology Authority (ASTA). Twenty-five high school students from Bella Vista, Conway, Fayetteville, Jonesboro, Little Rock, Vilonia, Benton, Morrilton and Highland (Illinois) participated in the program which was designed to stimulate and enhance students' interest in the STEM and show the connection between STEM areas, with particular applications to applied mathematics and computer science. This year, MSIT had two activities – Cryptology (conducted by Drs. Ramesh Garimella and R.B. Lenin) and Computer Applications (conducted by Drs. Clarence Burg and Mark Smith). Sixteen students took part in Cryptology and the other nine students took part in Computer Applications.

### Physics:

- Dr. Frederickson reported that Dr. Rahul Mehta and Nirav Patel (a spring 2012 physics B.S. recipient) attended CAARI 2012 (Conference on Application of Accelerators in Research and Industry) August 8<sup>th</sup>-9<sup>th</sup> in Fort Worth, Texas. Dr. Mehta chaired a session titled "Teaching with Accelerators – 2" on Wednesday, August 8<sup>th</sup>. Four 30-minute, invited talks were given in this session. Nirav Patel presented a poster (co-authored with Dr. Mehta and Gregory Sheffer, another UCA student) titled, "SEM Study of Elements Present in Bones Subjected to Microgravity with Shear Modulus Analysis."
- Dr. William Slaton traveled with three students: Justin Mann, Matt Sisson and Jerrod Ward to the Mid-South Acoustical Society of America spring meeting in Vicksburg, Mississippi. The meeting was held at the U.S. Army Engineer Research and Development Center and featured a presentation on the effect that the propagation of outdoor sounds had on the outcomes of some Civil War battles.

- Dr. Andrew Mason attended the 2<sup>nd</sup> Conference of Transforming Research in Undergraduate STEM Education (TRUSE) at the University of St. Thomas in St. Paul, Minnesota. He presented a poster at this meeting titled “Problem Solving Computer Coaches: Applications for Life Science, Education Majors,” co-authored with Mishal Benson, a secondary science major at UCA and collaborators at the University of Minnesota.
- Dr. Mason also attended two meetings held on July 28-August 2 in Philadelphia, Pennsylvania. The Physics Education Research (PER) conference followed the American Association of Physics Teachers summer meeting. Dr. Mason presented a poster at the PER conference entitled “Adaptation of Introductory Physics Computer Coaches: Applications and Design,” co-authored with Mishal Benson, a secondary science major at UCA and collaborators at the University of Minnesota.

# COLLEGE OF NATURAL SCIENCES and MATHEMATICS

## Minutes of Chairs Council Meeting – August 27, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, August 27, 2012. All chairs were present.

### **Agenda Items:**

1. Minutes from the 8-13-12 CoC were approved as amended.
2. Dean Addison reported that Drs. Parrent, Stanton, Winden-Fey and Ms. Eubank will attend this week's COD to discuss beginning of the semester issues. Dr. Addison asked the chairs to pay close attention to planning for the spring semester.
3. The proposed timeline for the new science building was discussed. Dean Addison asked the building committee, which is composed of himself, Drs. Ginny Adams, Carl Frederickson, Ben Cash and Chenyi Hu, to name another member of their department who would serve as their alternate to the committee.

### **Announcements:**

1. Dean Addison announced that he has been asked to chair the search for the new College of Business Dean.
2. Dr. Neil Hattlestad is retiring at the end of the current academic year.
3. UCA's STEMteach is off to a good start with 19 students enrolled in step 1. UTeach will conduct an on-site visit October 1<sup>st</sup> and 2<sup>nd</sup>.
4. We are hosting a Girls of Promise meeting on campus April 6, 2013. There will be between 80 and 100 8<sup>th</sup> grade girls involved.
5. Dr. Adams asked the chairs to supply her, by Friday, September 7<sup>th</sup>, with a list of top female alumna.
6. Dr. Adams also asked the chairs to send her the names of all student organization faculty advisors.

### **Chairs Reports:**

#### **Biology:**

- No report.

## **Chemistry:**

- Dr Mauldin reported that the Department of Chemistry spent \$5000.00 on chemical waste disposal in the summer of 2012.
- In the spring of 2012, the Department of Chemistry decided to adopt a procedure for research student selection and placement on a trial basis during the 2012-2013 academic year. The application deadline for students who want to sign up for research for the spring semester of 2013 is Monday, October 22, 2012. Applications are available on the department's website under the section entitled Research.
- Tutoring by chemistry majors Jordan Wilkerson, Amanda Hanson, Aaron Owen, Ryan Parker, and LiChen Chen will begin on Thursday, August 30<sup>th</sup>, and continue on Tuesday and Thursday evenings from 5:30-7:30 in Laney 105. Jordan Wilkerson will serve as head tutor and a total of three tutors will be available for each session.
- In July, Dr. Richard Tarkka attended a week-long workshop on Green Chemistry at the University of Oregon. The workshop is part of the cCWCS (Chemistry Collaborations, Workshops & Communities of Scholars) program that is sponsored by the NSF. Chemistry professors from around the country participated. The focus of the work was the evaluation of up to 24 different lab exercises for the organic chemistry sequence, all of which had major green chemistry themes. There were also presentations about toxicology, life cycle assessment, strategies for implementing green chemistry, and other related topics. Several experiments tested at the workshop, or under development at UCA, will be incorporated into the Organic Chemistry 2401 / 3411 sequence during the 2012-2013 academic year.

## **Computer Science:**

- Dr. Hu reported that the Computer Science Club has become a student chapter of the Association for Computing Machinery (ACM), the world's largest educational and scientific computing society. To reflect this change, the CS Club is now renamed UCA ACM Bears.
- The computer science faculty met on August 20<sup>th</sup> and discussed tasks of the department for the new academic year. Dr. Addison, the interim dean of the college, was invited and participated in the discussion.

## **Math:**

- Dr. Garimella reported that UCA changed the calculus sequence (Calculus I, II & III) from 5+5+3 to 4+4+4 credit hours. This change will bring us in line with other major four-year institutions in the state as well as the region. This will make transferability easier. To avoid scheduling and textbook issues, students who previously began the sequence with Calculus I (Math 1591) should be encouraged to complete the sequence in spring 2013 without omitting a semester. To facilitate this transition as seamless as possible, the Math Department plans to

phase out 5+5+3 calculus sequence in the following manner. We will offer new Calculus I (new # Math 1496) and Calculus II ((new # Math 1497) for the first time in spring 2013. However, for spring 2013 we will offer the old 3-hour Calculus III (Math 2371) course. Starting summer 2013 calculus I, Calculus II and Calculus III (new #Math 2471) will each be 4-credit hours.

- This summer Dr. Clarence Burg taught nine students in the Algebra II preparation class for the Upward Bound Summer Institute. He gave the same pre-test/post-test as last year. This year the average score on the pre-test was 6 out of 32. The average score on the post-test was 28 out of 32.

### **Physics:**

- Dr. Frederickson reported that the number of Physics majors is on the rise. There were 11 B.S. degrees awarded during the 2011/2012 academic year. The future looks even stronger. University Physics 3 (usually entirely Physics majors) has an enrollment over 20 this semester. There were over 20 entering freshmen in the cadre of students at the opening meeting with the College who met with Dr. Frederickson for the break-out session with Physics.

## **COLLEGE OF NATURAL SCIENCES and MATHEMATICS**

### **Minutes of Chairs Council Meeting – September 24, 2012**

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, September 24, 2012. All were present except for Drs. Ginny Adams and Rob Mauldin. Dr. Bill Taylor attended representing the Chemistry Department.

#### **Agenda Items:**

1. Minutes from the 9-24-12 CoC were approved as amended.
2. The General Education Task Force report was discussed. Dean Addison pointed out that all the chairs have a copy and asked for recommendations. Dean Addison proposed a general forum for CNSM to discuss the general education changes. It was suggested that the chairs poll their faculty who teach general education classes for responses to the proposed changes.
3. Dean Addison discussed the upcoming UTeach on-site visit taking place October 1<sup>st</sup> and 2<sup>nd</sup>. Representatives from the UTeach Institute will be on campus observing UCA's newly developed STEMteach. Dean Addison asked the chairs to provide Dr. Gary Bunn with names of three or four math and science BSE students available for interviews with the visiting group.

#### **Miscellaneous Announcements and Reminders:**

1. Dean Addison reported that the recent Board of Trustees meeting went as expected regarding the timeline of the new science building. Provost Runge will be going to Washington next week and will discuss the building with some of our congressional representatives.
2. Dean Addison reminded the council that October 5<sup>th</sup> is the deadline for the Budget Advisory requests. The chairs were asked to review the five-year plan and to get their figures in to the Dean's Office by the deadline.
3. The Distinguished Scholars Day will be held November 9<sup>th</sup>.
4. UCA will present a Family Day "program fair" October 20<sup>th</sup> between 2:00 p.m. and 4:00 p.m. There is also a Bears Facts Day scheduled on that date.
5. A mandatory Supervisory Skills workshop is being held Wednesday, September 26<sup>th</sup> from 9:00 a.m. until 11:00 a.m. in the McCastlain Ballroom.
6. Dean Addison asked the chairs to remind their faculty and staff that problems with Lewis Science Center will be handled by the building administrator, Dr. Ginny Adams, but the first step is reporting it to their department chair or office staff.

7. Dean Addison was elected vice-chair of the ASTA Science Advisory Committee at the meeting last Friday.
8. Dean Addison reminded the chairs that the information about research grants should be submitted when the person begins writing the grant. This is especially important if matching funds are required. Waiting too close to the deadline could result in the grant not making it through the approval process for submission. There have been some close calls recently.

### **Chairs' Reports:**

#### **Biology:**

- Dr. Cash reported that new Biology faculty member Dr. Arijit Mukhejee, has recently presented two invited seminars, one at UA-Fayetteville and one at ASU-Jonesboro.

#### **Chemistry:**

- Dr. Taylor reported that the Department of Chemistry's search committee for a tenure-track faculty position in Biochemistry (replacement for Dr. Lance Bridges) consists of Drs. Melissa Kelley (Chair), Lei Yang, Bill Taylor, and Jeff Padberg. The AA1 has been approved. The department is beginning the advertising with Chemical and Engineering News (print) and ACS Careers (on-line). The review of applications will begin on October 17<sup>th</sup>.

#### **Computer Science:**

- Dr. Hu reported that he recently served on a panel for the NSF (National Science Foundation) to review grant proposals.
- At the September Computer Science Department meeting workloads were discussed.

#### **Math:**

- Dr. Garimella reported that Dr. Clarence Burg's paper, *Java-Based Educational Two-Dimensional Unstructured Compressible Navier-Stokes Solver*, has been accepted for publication in *Computer and Fluids*.
- An article written by Dr. Jason Martin, *Differences Between Experts and Students' Conceptual Images of the Mathematical Structure of Taylor Series Convergence*, has been accepted for publication in the *International Journal for Educational Studies in Mathematics*. It is currently online and will appear in the printed journal at a later date. Martin's study presented a framework for analyzing conceptual understandings of structural and operational components of complicated mathematical structures.
- A paper, *A Correlation Between Hours Spent in the Math Lab and Final Exam Scores Among Computer-Based College Algebra Students*, written by Dr. Nina Ye has been

accepted for publication in the *Review of Higher Education and Self Learning* (RHESL), Volume 5, Issue 16 (Fall 2012).

- Dr. R.B. Lenin, Assistant Professor of Mathematics, received a \$9,000.00 subcontract from UAMS to identify scheduling policy to achieve minimal waiting time while optimizing healthcare resources using MedModel software. He has been working with the OB/GYN Department at UAMS to develop computer simulation models for flows of outpatients at the Freeway Clinic and Financial Parkway Clinic, Little Rock, Arkansas, since Summer 2011.
- The Math Department's proposal to establish a 15-hour content track in the ASTL Program entitled "Elementary Mathematics Specialist," along with the new courses: Algebraic Thinking for K-8 Teachers (Math 5309) and Data Modeling for K-8 Teachers (Math 6312), has been approved.
- Ads for three tenure track positions in mathematics education and mathematics/applied mathematics have been placed in the Chronicle of Higher Education (both print and online), AMS website, the Journal of Blacks in Higher Education and other professional on-line sites.
- Dr. George Bratton has been named as the chair of Mathematics DPAC.

#### **Physics:**

- Dr. Frederickson reported that Physics faculty member, Dr. Debra Burris, had a full-page feature in the Ozark River Valley edition of the Log Cabin Democrat profiling her career with UCA and highlighting her successful outreach program.

## **COLLEGE OF NATURAL SCIENCES and MATHEMATICS**

### **Minutes of Chairs Council Meeting – October 15, 2012**

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, October 15, 2012. All chairs were present.

#### **Agenda Items:**

1. Minutes from 9-24-12 CoC were approved as amended.
2. Copies of Dr. Charles Watson's report regarding the recommendations of the General Education Task Force were distributed. Dean Addison asked the chairs to review the report and send comments/recommendations to Dr. Watson. Dr. Watson will discuss the report and the chairs' input with the College Curriculum and Assessment Committee. The chairs were encouraged to attend the open forum presented by the General Education Task Force Wednesday, October 24<sup>th</sup>.
3. Dr. Ginny Adams, Associate Dean, discussed the many advantages of Digital Measures, the software package that UCA is adopting in late December of 2012 or early January 1013.

#### **Miscellaneous Announcements and Reminders:**

1. Dean Addison announced that Saturday, October 20<sup>th</sup>, is Bear Facts Day/Family Day. He asked the chairs to get the names of students who will participate to Leigh Ann DenHartog by Wednesday, October 17<sup>th</sup>.
2. Dean Addison reminded the chairs to get the tenure and promotion materials into the Dean's office.
3. Dean Addison announced that in the interest of investigating new ways to market CNSM, he is putting together an hoc committee to consider the advantages of microblogs, twitter, etc. The committee will consist of Drs. Slaton, Padberg, and Desrochers.

#### **Chairs Reports:**

##### **Biology:**

- Dr. Cash reported that Environmental Science major, Richard Walker, will have an article in the Ecology of Freshwater Fish publication.

##### **Chemistry:**

- Dr. Mauldin reported that Dr. Joe Allison, a 1979 UCA Chemistry graduate, has been named the 2013 UCA Distinguished Alumnus.

- Chemistry major, Claire Desrochers, was awarded 1<sup>st</sup> place in oral presentation at the 2012 Arkansas INBRE conference held October 5<sup>th</sup> and 6<sup>th</sup> in Springdale, AR.

#### **Computer Science:**

- No report.

#### **Math:**

- Dr. Garimella reported that The Department of OB/GYN at UAMS has agreed to fund a graduate research assistantship (approximately \$10,000), effective immediately, to assist Dr. R.B. Lenin on a joint research project.
- On September 18<sup>th</sup>, Dr. Clarence Burg and mathematics graduate assistants, Vinh Lu and Rebekah, traveled to the Harding University for graduate recruitment. During this visit Dr. Burg gave a presentation on *How to Calculate Exponential Functions Effectively and Efficiently*. About 25 mathematics majors and 10 faculty members attended the session.
- During the week of October 8<sup>th</sup>, Dr. Ramesh Gaimella visited the Department of Engineering, Mathematics and Physics at the Texas A & M International University to review their masters' program in mathematics.
- The Math Department's fall picnic was held on September 28<sup>th</sup> at the home of Ramesh and Uma Garimella.

#### **Physics:**

- Dr. Frederickson reported that physics student, Bryan Wofford, was awarded 1<sup>st</sup> place in the poster competition at the 2012 Arkansas INBRE conference in Springdale, Arkansas.

## **COLLEGE OF NATURAL SCIENCES and MATHEMATICS**

Minutes of Chairs Council Meeting – November 19, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, November 19, 2012. All chairs were present. Dr. Ginny Adams, Associate Dean, was absent.

### **Agenda Items:**

1. Minutes from the 10-15-12 CoC were approved as amended.
2. ADE First Aid and CPR Training were discussed. Dean Addison explained that the Conway Fire Department is prepared to come to UCA and train interested faculty and staff. Dean Addison is requesting that all chairs, back-up supervisors and technicians take advantage of the training being offered. The chairs should send the names of people who will be taking the training course to the Dean's Office.
3. It was announced that Digital Measures should be up and running by February 15, 2013. This should greatly facilitate putting the annual report together.
4. Building plans for the new science building were discussed.

### **Miscellaneous Announcements and Reminders:**

1. Dean Addison reminded the chairs to get outstanding staff evaluations completed and sent to Human Resources. He also reminded the chairs to make sure that completed PAFs are sent to the Dean's Office in a timely manner.
2. Dean Addison announced that mid-tenure review material is due to the Dean's Office March 1, 2013.
3. Dean Addison asked the chairs to look at our degree programs in light of the General Education Council voting to support a 38-hour general education program.
4. Dean Addison distributed handouts with SURF 2012-2013 statistics and reminded the chairs that it is critical that CNSM keep our numbers up in the competition.

### **Chairs Reports:**

#### **Biology:**

- Dr. Cash reported that Dr. David Dussourd and Biology student, Kyle Hurley, attended the 2012 Entomological Society of America Meeting, November 11<sup>th</sup> – 14<sup>th</sup>, in Knoxville, Tennessee. Kyle presented a poster at the meeting.

- Drs. Reid Adams, Dr. Ginny Adams, and students, Jessie Green, Chris Naus, Casey Cox, Garrett Grimes, Chelsey Sherwood, Page Vick, Hayley Seay, and Luke Pearson attended the Southeast Fisheries Council Meeting, November 8<sup>th</sup> & 9<sup>th</sup>, in New Orleans, Louisiana. For the second year in a row UCA brought more students to the meeting than any other participating university. Jessie Green won 1<sup>st</sup> place in the presentations competition.
- Dr. Jeff Padberg, graduate student Johnathan Rylee, and undergraduates, Jordan Fletcher, Chelsey Sherwood, Brad Moffitt, and Monica Runge, attended the 2012 Neuroscience Society Meeting in New Orleans, Louisiana, October 13<sup>th</sup>- 17<sup>th</sup>. Johnathan Rylee and Jordan Fletcher presented posters.
- Dr. Arijit Mukherjee has been awarded a \$10,760.00 grant to fund his project titled, *Improving Nitrogen-fixation in Cereals*.

### **Chemistry:**

- Dr. Mauldin reported that the Department of Chemistry finished its first cycle of the student research application process. Four of nine students who applied were assigned to available positions in the research laboratories. After students completed forms and the department met to discuss the applicants, their preferences, and the availability of research positions, four of nine students were assigned to positions in the research laboratories. Four of the five students who were not placed in research labs were freshmen or sophomores and therefore will have time to finish a research project prior to graduation. One student who was not placed in a lab, however, is a senior who plans to graduate at the end of fall semester of 2013.

### **Computer Science:**

- Dr. Hu reported that over 150 people participated in the 2012 Python Arkansas Conference at UCA Brewer-Hegeman Conference Center on Saturday, October 27. This conference has been continuously sponsored by the CS Department. Dean Addison welcomed the participants. Dr. Hu delivered a two-hour hands-on tutorial to a diverse range of audience.
- The ACM Bears, a computer science student organization, is organizing a research seminar on computational related interdisciplinary projects to be held on Monday, November 16th.
- Local IT business leaders will jointly offer a course for upper level computer science students in spring 2013.

### **Math:**

- Dr. Garimella reported that Dr. Clarence Burg, Associate Professor of Mathematics, received a URC grant for his proposal, *Low Speed Wind Tunnel to Study Wind Diverter Assembly Configuration*.
- Last month, Dr. Jason Martin, Assistant Professor of Mathematics, presented at the 34<sup>th</sup> annual meeting of the North American Chapter of the international Group for the Psychology of Mathematics Education. He was the lead author on a brief research report

that was accepted to the conference after peer review. The report was titled, *Quantitative Reasoning About Absolute Value During Guided Reinvention of Sequence Convergence*.

- Dr. Carolyn L. Pinchback, Professor of Mathematics, recently gave a presentation titled, *Three Rare Materials in Mathematics Class: Cockroach, Donut, Post-it Notes* at the National Council of Teachers of Mathematics (NCTM) 2012 Regional Conference and Exposition held October 24-26, 2012 in Hartford, Connecticut.
- Drs. Lenin and Le conducted a Praxis II workshop for participants in the Partnership for the Transition to Teaching project. It is a part of the 2.3 million dollars DOE grant obtained by COE.

### Physics:

- Dr. Frederickson reported that during the of October 22<sup>nd</sup> – 26<sup>th</sup>, he, Dr. William Slaton and six students attended the 164<sup>th</sup> Meeting of the Acoustical Society of America, in Kansas City, Missouri. Each of the students participated in the Undergraduate Research Exposition Poster Session. The titles and authors of the posters were:
  - **Jean Paul Ngaboniziza**, Carl Frederickson, *Doppler Measurement of the Motion of a Physical Pendulum*.
  - **Ashley J. Hicks**, William V. Slaton, *Designing and Building Transducers for Use in a Molecular Acoustics Experiment*.
  - **Justin Mann, Matthew Sisson**, and William V. Slaton, *Acoustic Properties of Flight Approved Materials*.
  - **Frederick J. Ward**, William V. Slaton, *Design Characterization and Testing of a Custom Air Horn*.
  - **Shelby Burns**, William V. Slaton, *Wine Glass Resonance Experiment and Demonstration*.
- Dr. Carl Frederickson attended the Colorado Learning Assistant Workshop 2012 on the campus of the University of Colorado at Boulder. PhysTEC, a network of institutions – more than 250 in number – committed to improving the education of future physics and physical science teachers, sponsored the workshop. The Learning Assistant program is a highly supported peer teaching experience that has been shown to improve students' learning and attitudes toward science in undergraduate lecture classes and recruit talented science and math students into teaching careers.
- On November 2<sup>nd</sup> and 3<sup>rd</sup>, Drs. Debra Burris and Carl Frederickson attended the 2012 Arkansas-Oklahoma-Kansas Section of The American Association of Physics Teachers along with six students. Dr. Burris presented a paper titled, *Integrating Physical Science into Middle School GT Projects*. The six students presented five of the eleven posters in the poster session. The titles and authors of the posters were:
  - **Mishal Benson**, Andrew Mason, *Teaching Expert-like Problem Solving Framework: College to High School*.
  - **Shelby Burns**, Debra Burris, *Stream Team as Laboratory Experience for Middle School Students*.

- **Matt Hankins**, Debra Burris, *Arkansas Ancient Astronomy: The Point Remove Mound Complex*.
- **Jeremy Jacobs**, **Steven Clark**, and Debra Burris, *Determining the FWHM of the H- $\beta$  Emission Line of Active Galactic Nuclei*.
- **Tristan Odekirk**, Debra Burris, and **Jacob Teffs\***, *Trends in Light n-Capture Elements*.
- \* This is work that both Jacob Teffs and Tristan Odekirk have worked on. Jacob graduated with a BS in Physics in the spring of 2011 and is attending graduate school at the University of North Dakota.

# COLLEGE OF NATURAL SCIENCES and MATHEMATICS

## Minutes of Chairs Council Meeting – December 3, 2012

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A meeting of the Chairs' Council of the College of Natural Sciences and Mathematics was held Monday, December 3, 2012. All chairs were present. Associate Dean Ginny Adams was absent.

### **Agenda Items:**

1. Minutes from the 11-19-12 CoC were approved as amended.
2. Establishing a boot camp program for entering freshmen was discussed. Handouts of boot camp material from Louisiana State University and the University of Mississippi were distributed as examples. Dean Addison asked the chairs to nominate a faculty member from their department to serve on an ad hoc committee to consider the feasibility of the program.
3. Summer school profits were discussed. Using ARGOS, the percentage of profits gained will be ascertained and discussed at a future CoC meeting.
4. As it stands right now, there is no official update on Digital Measures.
5. Dean Addison met last week with Provost Runge to discuss the presentation to be made at the Board of Trustees meeting Friday, December 7<sup>th</sup>, for the new science building.

### **Miscellaneous Announcements and Reminders:**

1. Dean Addison reminded the chairs to prepare the proper notification for their faculty on one-year contracts.
2. Dean Addison announced that the Arkansas Department of Education is interested in starting a program to bring 30 mathematic teachers from India to the state.
3. Sunday, December 2<sup>nd</sup>, Dean Addison had the privilege of attending the 90<sup>th</sup> birthday celebration honoring retired physics faculty member, Dr. Maurice Ayers.

### **Chairs Reports:**

#### **Biology:**

- Dr. Cash reported that 42 applications for the Cellular Biologist position have been received. A short list has been developed and phone calls will begin next week.

- About 30 applications have been received for the Population Geneticist position. The committee is in the process of developing a short list.

### **Chemistry:**

- Dr. Mauldin reported that on Friday, November 30<sup>th</sup>, he met with representatives of the Conway Fire Department, UCA Police Department and UCA Physical Plant for a consultation regarding the emergency plan for Laney Hall, Laney Annex, and the two research labs in Prince. Several improvements to the draft plan resulted, including the designation of the emergency assembly area, the use of the first-floor auditorium of Doyne as a tornado shelter if there is sufficient notice (due to chemicals stored in Laney), and recognition that Prince's plan, authored by Brad Teague, will need to include portions of the Laney plan since there are two labs in Prince.

### **Computer Science:**

- Dr. Hu reported that the NASA EPSCoR project, *New Computer Vision Methods for NASA Robotic Planetary Exploration*, to Arkansas has been funded to UALR. Dr. Yu Sun is co-PI of the project.
- A subcontract original from the Department of Defense is being transferred to UCA for Dr. Tansel Halic to continue his research work.

### **Math:**

- Dr. Garimella reported that math majors, Thomas Deathrage and Brandon Ashley (mentored by Dr. Danny Arrigo), have been accepted to present posters at the joint meetings of AMS and MAA to be held in San Diego, CA during the second week of January 2013.
- Six mathematics students (1 MA, 1 MS, 2 BSE, and 2 BS) will graduate at the upcoming winter commencement.
- Last week, Dr. Jean McGehee submitted a NCLB grant proposal, *Geometry and the Implementation of the Common Core State Standards*, to ADE.
- Dr. Clarence Burg and graduate student, Ezechiele Degny, have co-authored a journal publication based on Degny's Master's thesis. It is titled *Derivative-Based Midpoint Quadrature Rule* and will appear in the open access journal *Applied Mathematics* in January 2013.
- UCA will host a statewide meeting on the Quantitative Literacy on January 8<sup>th</sup> in LSC 100 for all state colleges and universities. Dr. Charles Watson is working with Ms. Amy Baldwin (CCA grant co-ordinator) to organize the meeting. Dr. Dave Sececki, a consultant from Miami University in Ohio, will present. Dr. Watson will chair a panel composed of instructors who taught QL this fall from other universities in the state.

## Physics:

- Dr. Frederickson reported that Dr. Azida Walker and Physics student, Nickolas Martinez, attended the fall meeting of the Prairie Section of the American Physical Society November 8-10 in Lawrence, Kansas. They presented a poster titled, *The Use of NRS Pulses to Select Among Competing Markov Models for the Same Ion Channel*.