

## ***FROM THE DEAN'S DESK – October 24, 2014***

THE RADFORD UNIVERSITY COLLEGE OF SCIENCE AND TECHNOLOGY NEWSLETTER



Flanking Nancy '73 and H. Pat Artis, namesakes of the ARTIS Lab, are students from RU's Information Technology department and Professor Joseph Chase, far right.

**PAGE 2 - INSPIRED BY PHILANTHROPY, ARTIS LAB IS ILLUMINATED AT GRAND OPENING**

**PAGE 5 - RU ALUMNUS DISCUSSES BIG DATA CHALLENGES AND OPPORTUNITIES WITH IT STUDENTS**

**PAGE 7 - COLLEGE OF SCIENCE AND TECHNOLOGY FACULTY EXPLORE THE GENDER GAP IN STEM DURING FALL DIVERSITY AWARENESS AND CELEBRATION WEEK**

**PAGE 8 - COLLEGE OF SCIENCE AND TECHNOLOGY SHINES DURING RU HOMECOMING AND FAMILY WEEKEND**

**PAGE 11 - CSAT SPOTLIGHT: DR. JAKE FOX**

**PAGE 14 - RADFORD UNIVERSITY DEPARTMENT OF CHEMISTRY AND CHEMISTRY CLUB CELEBRATE NATIONAL CHEMISTRY WEEK – OCTOBER 20-24**

**PAGE 15 - "WORLDS OF ANCIENT MEXICO" LECTURE SERIES BEGINS**

**PAGE 15 – MUSEUM OF THE EARTH SCIENCES AND SIGMA GAMMA EPSILON TO HOST SCREENING OF "CHASING ICE" DOCUMENTARY ON NOVEMBER 11<sup>TH</sup> AND 19<sup>TH</sup>**

**PAGE 16 - CSAT CAREER CONNECTIONS: RU STEM CAREER FAIR TO BE HELD NOVEMBER 5**

## **INSPIRED BY PHILANTHROPY, ARTIS LAB IS ILLUMINATED AT GRAND OPENING**

The monitors and screens in the Applied Research in Technology and Information Science Laboratory (ARTIS) flared to life as President Penelope W. Kyle and Nancy '73 and H. Pat Artis pushed the white button that transformed a room in Davis Hall into a unique learning space.

They were joined by Michael Wray, Rector of the RU Board of Visitors (BOV), and Jeff Pittges, chair of the Department of Information Technology, to

illuminate the "science on display" site that will also house the Applied Research Consortium to bring together students, faculty and regional industry partners for exploration of emerging enterprise technologies.

More than 70 students, faculty and information technology business leaders gathered with BOV members Matthew Crisp '04 and Georgia Anne Snyder-Falkinham, former BOV Rector Mary Ann Hovis '65, and Orion Rogers, dean of the College of Science and Technology, for the grand opening event. The ARTIS Lab is the latest in a series of philanthropic initiatives on behalf of RU and its students by the Pagosa Springs, Colorado, couple.

"Nancy and Pat solve problems with technological and educational solutions and only they could pull this off. Their investment means the university can prepare the next generation of 'solutions providers'" said President Kyle. "Once more, the Artises have recognized the ways RU and its faculty are transforming the campus and the programs by which we serve our students."

The ARTIS Lab is an advanced, high-tech collaborative workspace. Students will work with faculty and industry partners to solve real problems, such as rapid prototyping and evaluation of emerging technologies. RU students will gain technical and professional experience, distinctive for undergraduate students in the information management and assurance fields. The ARTIS lab will support RU's proposed Data and Information Management graduate program, the first of its type in Virginia.



**President Kyle celebrates the opening of the Artis Lab with the Artises and others.**



***Michael A. Wray (Rector of the Radford University Board of Visitors), Radford University Penelope W. Kyle, Jeff Pittges (Chairman, Department of Information Technology), Nancy Artis (RU Class of 1973) and Dr. H. Pat Artis react as they push the button that officially started the ARTIS Lab.***

A hub for innovation and interdisciplinary learning on behalf the entire university community, the lab will house RU's Small Project Support Center, a management organization for large on-campus technology application projects. The lab will also be home to RU's award-winning Cyber Security Team.

Dr. Pittges said the ARTIS lab will prepare RU students for roles as developers, administrators and

architects of databases and information managers."Professional skills can't be taught, they must be experienced. Here the faculty will have a professional environment and challenges to engage our students and help them develop the soft skills to match their technical skills," Dr. Pittges said. "By engaging industry partners we can provide the community and Virginia with a workforce that can manage and protect important information assets. We are grateful to those who have made this possible, especially the Artises." Nancy and Pat Artis' commitment to RU students span the campus, President Kyle said.

President Kyle pointed out that students work in the Artis Centennial Early Career Development Program. Students study in the Janice Eisenhart MBA Library in the College of Business and Economics (COBE), named for Nancy Artis' sister, an alumna of Radford. COBE faculty and its leadership team meet in the Nancy Eisenhart Artis Executive Conference Room. Upon completion of the new Center for the Sciences, the Artis Computing Laboratory for Biological Sciences will be a platform for student research. The Artis' also provide scholarships and underwrite unique learning opportunities for fashion design students. Nancy Artis also served a seven-year tenure on the Board of Visitors, including as vice rector and chair of four committees.

"The entire university community appreciates such enduring support," President Kyle said. "We treasure this, the most recent addition to the Artis' philanthropic portfolio on behalf of Radford

students. We are excited about the potential that this valuable teaching and learning resource has for our students."

H. Pat Artis dedicated the facility and spoke about inspiration.

"Nancy and I would like to inspire every one of you to become more involved with higher education," said Artis. "For more than 100 years, Radford has been an inspiration to students from Southwest Virginia and the state as a whole. The students you meet today are likely to be first generation college students and the education they receive today will forever change their lives."



Flanking Nancy '73 and H. Pat Artis, namesakes of the ARTIS Lab, are students from RU's Information Technology department and Professor Joseph Chase, far right.

"Phase 2" of the construction of the ARTIS Lab began early on October 23, 2014 as Nancy and Pat Artis donned safety gear and helped to strike the first blow of demolition to an area that will become a conference room and breakout working space over the next three months.



***Dr. Orion Rogers, Nancy Artis, Pat Artis (looking through the partially demolished wall) and Dr. Jeff Pittges at the official start of Phase 2 of the ARTIS Lab.***

## RU ALUMNUS DISCUSSES BIG DATA CHALLENGES AND OPPORTUNITIES WITH IT STUDENTS

No institution seeks guidance about the relationship between spending and results more than the federal government.

Amy Edwards '00, director of the Government Performance Task Force of the United States Senate Budget Committee, shared insights from that quest when she met with the more than 30 members of Professor of Information Technology Jeff Pittges' Data Warehousing class on Thursday in Porterfield Hall.

Tasked with examining the information base for decision-making and identifying opportunities to improve the efficiency and effectiveness of federal programs and services, Ms. Edwards knows first-hand the challenge of making sense of a deluge of data.

"The goal is to deliver the best results and outcomes," said Ms. Edwards.

"Researchers and data miners like you can help decision makers like those in Congress do that."

Ms. Edwards pointed to the trove of government data that is, by law, posted at [data.gov](https://data.gov). "There is so much more data on inputs and outcomes there than we know how to use effectively right now. We need the capacity to do this," she told the aspiring information technology professionals.

Ms. Edwards referred to a recent survey of federal chief information officers that called filling the need for data analysts with expertise a top priority. Ms. Edwards talked about how the variety of departmental terminologies and taxonomies makes understanding, much less streamlining, the voluminous activities problematic.

As the director of a committee charged with holding government accountable, she said, "We are on the cusp of major reform. The more we can standardize data, the more helpful we can be in terms of providing program evaluation and cost benefit analyses that decision makers can use."

As a model making use of the value of data, she pointed to the jobs and private sector economic growth that has come as a result of the distribution of the National Oceanic and Atmospheric Administration's weather and geospatial data by app developers and other private sector entrepreneurs. Edwards cited a



***Amy Edwards meets with members of the STEM, Women in Computing, and Cyber Defense Clubs during a visit to RU.***

recent study that estimates that more than \$3 trillion worth of "untapped, exciting and emergent" economic activity exists in other governmental data.

As director, Edwards supports the task force, chaired by Senator Mark Warner (D-Virginia). With Senator Warner, she has championed the Digital Accountability and Transparency (DATA) Act and the Government Performance and Results Act. The DATA Act aims to overhaul and improve spending data transparency in government.

"For an enterprise as large as the federal government, a rich, full discussion about any issue is based on reliable information," she said. " That requires data that has integrity and quality."

Prior to her Senate staff service, Ms .Edwards was with the Pew Center on the States where she was manager of the Government Performance Project that issued reports cards on the management of 50 states. She has also served as the senior director of leadership and performance at the Council for Excellence in Government and as the communication director for Harvard University's Innovations in American Government Award. In 2014, Ms. Edwards was named by fedscoop.com as one of the [District of Columbia's Top 50 Women in Tech](#).

Ms. Edwards reflected on how a RU criminal justice major became the "budget lady."

"Getting out and working with people helped to fuel my passion," said Ms. Edwards, whose career began with undergraduate volunteer work on behalf the regional Head Start programs. "It is really important to try different things that can hone you in on where you want to be."

About her Radford experience, Ms. Edwards said, "I was a first generation college student and didn't know what to expect. RU helped me figure out what it meant to be a professional and gave me experience and confidence."



***Amy Edwards, Dean Rogers and members of the STEM, Women in Computing, and Cyber Defense Clubs***

## COLLEGE OF SCIENCE AND TECHNOLOGY FACULTY EXPLORE THE GENDER GAP IN STEM DURING FALL DIVERSITY AWARENESS AND CELEBRATION WEEK

As a part of the Fall 2014 Diversity Awareness and Celebration Week, RU CSAT Faculty served as panelists for a forum entitled “The Gender Gap: Where the Girls Aren’t” to discuss the challenge of engaging women in science and technology related fields. The event took place on Wednesday, October 15 at noon in the Bonnie Hurlburt Student Center Auditorium and featured Dr. Jill Stewart, Dr. Donna Boyd, Dr. Sara O’Brien, Dr. Christine Hermann, Dr. Hwajung Lee, and Dr. Orion Rogers.

“Overall, more women than men are graduating with a college degree and continuing education” stated Dr. Sara O’Brien. “ The number of women in the STEM fields has risen dramatically and in the fields of

Biology and Chemistry, women graduates outnumber men, but this is not always translating to the working world.”

This phenomena is known as “the leaky pipeline” and is one of the challenges that the group explored. No one cause was given as the major reason that women don’t continue into STEM careers, but unequal salaries, less support for family life, and a challenging environment were all mentioned as reasons for the lack of participation and areas where improvements could be made.



**Dr. Sara O'Brien emphasizing some of the many reasons why there are a lack of women in STEM.**

The panelists encouraged those present to support changes that would help bring more women to fields that need more support. “The brain power to solve the problems the world faces comes from both men and women in the sciences” stated Dr. O’Brien.



**Dr. Hwajung Lee making a point during the CSAT diversity forum.**

## **COLLEGE OF SCIENCE AND TECHNOLOGY SHINES DURING RU HOMECOMING AND FAMILY WEEKEND**

The annual Radford Homecoming and Family Weekend Celebration is a major opportunity to showcase the work of the faculty and students of the College of Science and Technology.

On Friday, October 10, The CSAT Advisory Council met in Heth Hall to review the activities of the college over the past year and to offer suggestions for involvement and opportunities for the CSAT community.

"The members of our council serve as exemplary role models for our students and resource people for our programs and the Dean's office, said CSAT Dean Orion Rogers.

"These successful scientific and business professionals are actively engaged in the life of our college and as CSAT achieves

new heights of success, their dedication and service to our students and faculty are greatly appreciated."



***CSAT Advisory Council members learning of college department activities during their annual fall meeting.***

At the CSAT meeting, the council heard about the expansive efforts of the college's faculty and student community. The college's nine departments – anthropological sciences, biology, chemistry, geology, information technology, mathematics and statistics, physics and the Radford University Forensic Science Institute – all provided updates. Matti Hamed, president of the RU STEM (Science, Technology, Engineering Medicine) Club – also updated the Council on its program of work. Among the topics covered were student research projects, departmental outreach activities, unique retention initiatives, faculty and alumni achievements and promising opportunities for growth of the college.

Following lunch, council members had a tour of the Department of Mathematics and Statistics facilities in Walker Hall guided by Department Chair, Dr. Jill Stewart. In addition to learning about the model Trebuchet that was to be demonstrated on Saturday by instructor Mr. John McGee, the council learned about the “flipped classroom” model of teaching being employed and studied in math classes and in other departments across CSAT. Dr. Anthony Dove shared his experiences working with students who exhibit “math anxiety”, primarily education majors who will be teaching math. Using brief videos of the

core material derived from his traditional class lectures, Dr. Dove posts them online where his students



*Dr. Anthony Dove explaining the benefits of utilizing a "flipped classroom" teaching model.*

access them at their convenience. "They can pause to gather their thoughts, rewind and review the material," said Dr. Dove. "Then, in class we can spend time working on solving math problems using the concepts explained in the videos." Advisory council members were intrigued by Dr. Dove's presentation and excited to learn that this effort is being employed in classes elsewhere in the College of Science and Technology. Several council members were

interested in learning more to be able to incorporate the technique into their own training practices in their respective businesses.

On Saturday, CSAT outreach facilities in Reed and Curie Halls were a popular destination for alumni, parents, students and guests. Hundreds of participants visited the RU Greenhouse, Museum of the Earth Sciences, Planetarium, and Anthropological Sciences facilities as well as a trebuchet demonstration sponsored by the Math Club on the lawn directly outside Reed Hall.



The CSAT STEM club demonstrated several scientific principles of wind power and magnetic fields with projects created by club members including a vortex cannon and a "floating" magnetic-levitation device.

Off campus, Radford University was well represented the Forensic Science Center, The Department of Biology and the Department of Chemistry were featured attractions in the Roanoke edition of the Virginia Science Festival. This was the second week of popular demonstrations for the “Roachzilla” and RUFSCI exhibits which were joined in Roanoke for a special one-day Chemistry demo featuring current



*Radford University students sharing science with festival participants.*

students, alumni and faculty showcasing the exciting topic of nanotechnology and the chemistry needed to make it work for the development of new materials, improved drug delivery, and environmental cleanup. Through the use of demonstrations and hands-on exhibits, the group introduced the public to the exciting realm of the nano-world. The award winning Radford University P3 team was also be on hand to discuss the application their recent discovery of sugar based carbon nanoparticles for inexpensive water purification.



*RU P3 team members at the Virginia Science Festival*

## CSAT SPOTLIGHT: DR. JAKE FOX



***Dr. Jake Fox analyzing pottery in a make-shift field lab in Oruro, Bolivia in 2004***

Each individual path to a career in STEM has many twists and unexpected turns. This was true for Associate Professor of Anthropological Sciences, Dr. Jake Fox who at one time was focused on life outside a formal education. “I was born and raised in New Jersey, where I dropped out of high school at the age of 17 (yes, it's true)” recalls Dr. Fox. “From the age of 18, I spent several years travelling around Europe and North America, eventually landing in Arizona, where I worked in the restaurant business as a cook and chef.”

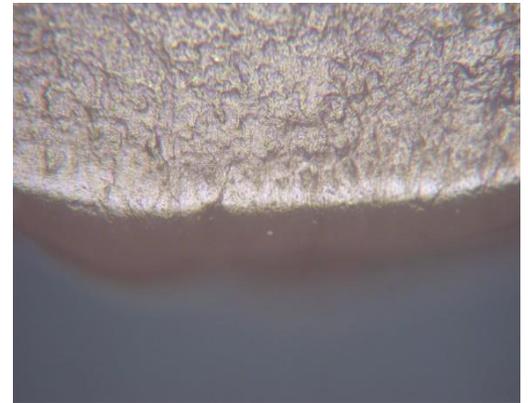
It was while he was working as a kitchen manager that the education bug started to bite him once again. “I took a couple of classes at Pima County Community College in Tucson and it was at PCC that I happened to take a class in anthropology” Dr. Fox says. “Introduction to Archaeology and Biological Anthropology was the class that introduced me to a field that I found more interesting than anything I had ever considered. In fact, I loved the subject matter of anthropology so much that I quickly made the decision to apply to Arizona State University as an Anthropology major. I graduated from ASU in three years.”

Dr. Fox continued his studies at Iowa State University of Science and Technology, where he earned his Masters of Arts degree with support as research assistant on the NSF-Funded *Eastern Hasa Late Pleistocene Project* which was directed by Dr. Nancy Coinman and Dr. Deborah Olszewski. “This was my first real participation in designing and conducting archaeological research” states Dr. Fox. “My MA thesis was a study of the archaeological remains of a 40,000 year old archaeological site in Jordan, where I spent two seasons excavating and documenting materials.”

Although he never knew it at the time they were discovered, the artifacts recovered from those excavations are a benefit to the Radford University community as they are now housed on campus and are the focus of on-going research. “I have plans to begin a series of analyses on collections of several thousand stone tools from the Wadi al-Hasa in Jordan” says Dr. Fox. “Those artifacts date to the Upper Pal eolithic period in the Middle East: about 40-20 thousand years ago. This is the time period in which modern humans first entered the Middle East from Africa.” He adds “The stone tool technology will

shed light on how modern humans adapted to this new environment and provides clues as to exactly how they interacted with hominids like Neanderthals that had lived in the region for more than 100 thousand years at the time.”

The analysis of the stone tools will include x-ray fluorescence studies and low to medium power microscopy to assess microwear patterns: wear patterns on the stone surfaces that reveal how the tools were used. Dr. Fox plans to incorporate several students into this research project, including interested students from “RU Accelerate” - a new fall program for freshmen who would like to get a head start on their Radford experience.



*Example of a microwear pattern on a stone tool. Image: <http://www.dayofarchaeology.com/microwear-analysis-determining-the-function-of-chipped-stone-tools/>*

Dr. Fox earned his PhD at the University of Pittsburgh where he focused on the ecology and adaptations of early agro pastoral villages in the highland south-central Andes for his dissertation research. “The sites that I studied are located at 12 thousand feet above sea level western-central Bolivia” states Dr. Fox.” That region continues to be a major focus of my research interests today and in recent years I have added to my earlier research in Bolivia with support from RU and CSAT and in collaboration with Dr. Cassady Yoder Urista, Chair of the Department of Anthropological Studies.”



*Dr. Fox documenting stratigraphy in an excavation at the site of Chuquina in Oruro, Bolivia in 2004.*

In 2007, Dr. Fox arrived at Radford University and has continued to have a great impact in Anthropological Sciences both inside and outside the classroom. In addition to teaching a wide range of archaeology classes, Dr. Fox has also taught classes in biological anthropology and cultural anthropology and has continued to pursue research projects that engage RU students.

“I am collaborating with a colleague from St. Francis Xavier University on a grant proposal to the Canadian government to fund a long-range archaeological project in Panama” he says. “The project will include extensive regional survey and mapping of sites. Using GIS analysis, these results will be used to model changing settlement patterns in the development and evolution of chiefdoms in the Parita Valley.” If the proposal is successful, the project will encompass at least three years of field work in Panama, including many opportunities for student participation.



**Dr. Fox working with students during test excavations at the Arnheim House in Radford in 2008.**

## RADFORD UNIVERSITY DEPARTMENT OF CHEMISTRY AND CHEMISTRY CLUB CELEBRATE NATIONAL CHEMISTRY WEEK – OCTOBER 20-24

Students and Faculty from the RU Department of Chemistry have been celebrating “the sweet side of Chemistry” during National Chemistry Week (NCW) 2014, October 20-24.

This week long celebration encourages chemists and chemistry enthusiasts to build awareness of chemistry at the local level. Local Sections, businesses, schools, and individuals are invited to organize or participate in events in

their communities with a common goal: to promote the value of chemistry in everyday life.

Events have included a presentation on “Cracking your genetic code” held Monday, October 20 in Reed Hall 201, a look at the chemistry of beer and wine by Dr. Joe Wirgau on October 22 in McGuffey Hall, and an exploration of our “Planet of Viruses” held Thursday, October 23. A “Mini chemistry magic show” will be held on Friday the 24<sup>th</sup> on the Bonnie Hurlburt Student Center Plaza.

To learn more about the event across America, please visit the American Chemical Society’s NCW webpage at: <http://www.acs.org/content/acs/en/education/outreach/ncw.html>

The RU Celebration of National Chemistry week is sponsored by the Department of Chemistry and The Chemistry Club

**National Chemistry Week**  
The Sweet Side of Chemistry October 20-24

**Cracking Your Genetic Code**  
5-9pm  
Reed 201  
What will it mean when most of us can afford to have the information in our DNA—all six billion chemical letters of it—read, stored and available for analysis? “Cracking Your Genetic Code” reveals that we stand on the verge of such a revolution. Meet a cancer patient who appears to have cheated death and a cystic fibrosis sufferer breathing easily because scientists have been able to pinpoint and neutralize the genetic abnormalities underlying their conditions. But what are the moral dilemmas raised by this new technology? Will it help or hurt us to know the diseases that may lie in our future? What if such information falls into the hands of insurance companies, employers or prospective mates? One thing is for certain: the new era of personalized, gene-based medicine is relevant to everyone, and soon you will be choosing whether to join the ranks of the DNA generation.

**Monday**

**Bake Sale - Reed Hall - 8-5**  
**Tuesday**

**Planet of Viruses Webinar**  
2:00pm • Reed 208  
Viruses are typically considered tiny parasites of little importance, but in fact they are hugely important to ecology and evolution. Join Carl Zimmer as he discusses some of the recent discoveries about the planet-wide power of viruses.

**Thursday**

**Mini Chem Magic Show**  
11-3 • Bonnie  
Join us for some fun with chemistry! The Chemistry Club will be doing several exciting demos in the Bonnie during the lunch rush, so be sure to stop by and learn more about us and the work we do with the Chemistry Department.

**Friday**



In addition to the activities promoting the value of chemistry during NCW, women in chemistry will be celebrated on November 9 in Cook Hall as a new class of members will be inducted into Iota Sigma Pi at 2pm. Iota Sigma Pi is a national honor society first established in 1902 that promotes professional development and personal growth of women in chemistry and related fields. They do this through recognition, public outreach, and the formation of supportive networks. Diane Catley, Forensic Scientist Supervisor at Virginia Department of Forensic Science, will be the featured speaker.

## **“WORLDS OF ANCIENT MEXICO” LECTURE SERIES BEGINS**

The Department of Anthropological Sciences is bringing one corner of the world to Whitt Hall 204 this fall as they sponsor the “Worlds of Ancient Mexico” lunchtime lecture series. Dr. David S. Anderson is producing the talks which began on October 22<sup>nd</sup> and continue on October 29<sup>th</sup>, November 5th and 12th.

Having already discussed “The Fall of the Aztec Empire”, the remaining individual presentations talks are:

October 29 - Love & Betrayal:

The Legend of Lord 8 Deer and Lady 6 Monkey

November 5 - Force & Finesse:

Power in the Ancient City of Teotihuacan

November 12 - Past & Present: Visions of Aztlan

All sessions begin at noon in Whitt Hall room 204.

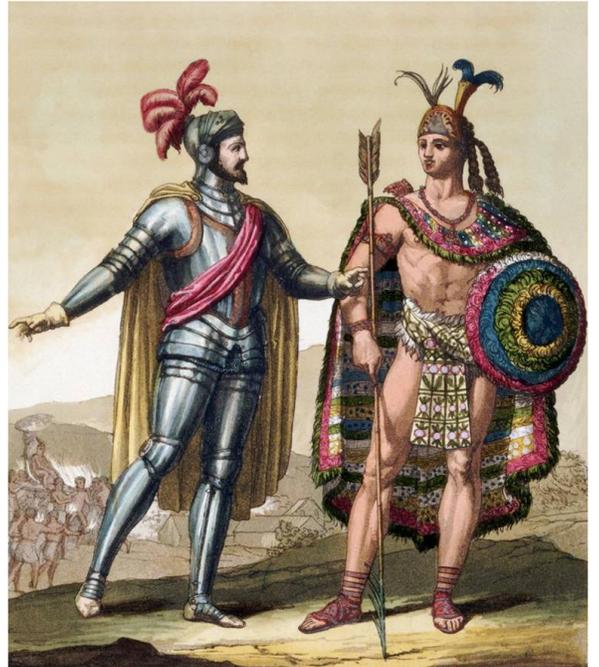


Image from "The Fall of the Aztec Empire" provided by the Department of Anthropological Studies

## **MUSEUM OF THE EARTH SCIENCES AND SIGMA GAMMA EPSILON TO HOST SCREENING OF “CHASING ICE” DOCUMENTARY ON NOVEMBER 11TH AND 19TH**

A screening of the documentary film “Chasing Ice” will be held on November 11th and the 19th at 7:00PM, at the Bonnie Hurlburt Student Center Auditorium. This 2012 movie is about the efforts of nature photographer James Balog and his Extreme Ice Survey to publicize the effects of climate change. The event is open and free to the public.

## CSAT CAREER CONNECTIONS

Radford University to host its first STEM specific career fair

In an effort to better promote the career and internship opportunities available to individuals interested in science and technology fields, the RU Career Center will host the STEM career fair on Wednesday, November 5, 2014 from 11 am until 2pm in the Bonnie Hurlburt Student Center rooms 249 and 250. Expected to be on hand to meet with students are representatives from *eIntern* based in Fairfax, *Modea* located in Blacksburg, *Radford City Schools*, *Tech Dynamism* from Charlottesville, *TechLab, Inc.* from Blacksburg and Radford, and *TEDS, Inc.* from Atkins. RU CSAT students are encouraged to attend to explore opportunities for positions and internship placements.

Prior to participating in the upcoming STEM Career Fair, students might want to put a final polish on their resumes and brush up on interviewing skills. This can be easily accomplished by working with Dr. John Liptak from the RU Career Center as he conducts “in college” office hours weekly in Stuart Hall lounge on Wednesdays from 8am until 5pm and on Thursdays from 10am until 3pm in Davis Hall. Students can make an appointment by emailing Dr. Liptak at [jliptak@radford.edu](mailto:jliptak@radford.edu) or by dropping by during his posted time periods.

Dr. Liptak has also prepared some advice for graduating seniors regarding the transition to the working world. “The transition from college to a career has been described as one of the most challenging transitions people will ever encounter” he states. “This transition requires that students learn a new set of skills, adapt to a new set of roles, and create an adult life by making initial choices about occupations, lifestyle, values, and dreams. Students are often unprepared to make the transition from college to career because they are forced to change their mindset from one geared toward freedom and autonomy to one of structure and teamwork.”

In making the transition from college-to-career, Dr. Liptak has the following suggestions that students might find useful:

- You need to find a suitable place to live. Decide whether you will begin by renting a home or have enough saved to purchase a home. Do not over-extend yourself in the amount of rent or house payment you make each month. Look for safe places in the area in which you find a job. Contact real estate agents in that area for more assistance and to search online properties.

- Learn more about financial planning. Read books that can help you with investments and savings plans, or try to use computer-assisted financial planning programs like Quicken. You may also want to consult a certified financial planner.
- Start developing a network of people who might be able to help you find a job. Your network could include professors, internship supervisors, previous employers, members of clubs and organizations you belong to, and people in the community.
- Begin planning for your retirement as soon as you become employed. The sooner you begin saving for retirement, the more money you will have accrued. Remember that putting a certain amount of money into your employer's 401K or 403B account will allow you to accumulate money without paying taxes on the money. Most financial planners suggest that you put a certain amount of money aside in one of these accounts each month.
- Be open to constructive criticism for your supervisor and other people who have been employed for a long time. They have your best interest at heart and want you to succeed. Whether you like it or not, your supervisor will have a significant impact on your success. You need to spend time developing a good working relationship with your supervisor and be open to suggestions for your improvement.
- Be open to working with people from a wide variety of ethnic, cultural, and socio-economic backgrounds. Remember that diversity brings a wide variety of ideas, possible solutions to problems, and creative ways of thinking. Learn to communicate well with people from all cultures and find ways to learn about people who are culturally different from you.
- Become a great problem-solver and decision maker. Supervisors like people who make logical, informed decisions and stick with them. You should probably also learn an effective problem-solving method (such as identify the problem, gather data about it, develop possible solutions, evaluate them, choose and implement the best solution, and evaluate the result).

- Remember that you are responsible for become a lifelong learner. Try to get as much training as you possibly can. Ask your supervisor if the organization offers any training programs that you could take advantage of. Then apply in the organization the skills you are learning. Lifelong learning can include seminars, workshops, retreats, conferences, and on-the-job training.
- Develop a long-range career plan that includes plans for advancing to the position you ultimately want in the organization. Determine what qualifications and education you will need to get promoted, and work toward that goal. If you are having trouble being promoted, try to create your own job by developing and demonstrating a special skill that the organization cannot do without.
- You must be willing to put in the time at your job to be successful. Remember that you only get one chance to make a good impression, and the impressions that you make at work are critical in your success. Always dress professionally, be on time, and stay late if you need to. If you are going to miss work or be late, make sure you know the proper procedures for taking time off.

Dr. Liptak adds “Remember that making the transition from college to a career you must be a master of change and be a manager of the transition. The more proactive you are in dealing with issues related to your specific transition, the more successful your career will be. Good luck!”