Welcome to the Winter issue of News Bytes for Neophytes! Please visit the ACES Honors Portal at http://academics.aces.illinois.edu/honors, our news blog (The ACES Honors Herald, updated weekly) at http://theaceshonorsherald.blogspot.com, and our Twitter feed (@ACESJSHP) to keep up to date on all the latest happenings.

In this edition of our newsletter, we have articles about Honors Credit Learning Agreements and the places they can take you; the first annual ACES Undergraduate Research Day; two firsthand accounts of becoming ACES Illini; and the surprising origins of chemistry. If you would like to contribute photos or articles to future issues, please contact me at the phone number and/or email address below.

Please feel free to contact me anytime if you have any questions about the ACES James Scholar Honors Program and your progress within it. I can be reached at 217-244-1684 and/or rchappel@illinois.edu.

Your sophomore year will be here before you know it. We encourage all of you to attend the undergraduate research programs that we are offering during spring 2019 so you can start planning ahead for your capstone experience in the Honors Program. All of the following events will take place in the Heritage Room of the ACES Library, Information and Alumni Center.

### Upcoming Events

#### Undergraduate Research Workshop #2
- **Friday, March 29th, 3:00-4:00 PM**
- **Presenter: Dr. Karen Rodriguez’G**

#### Undergraduate Research Extravaganza
- **Thursday, April 4th, 3:15-4:30 PM**
- **Presenters: Rob Chappell, Dr. Elvira Demejia, Dr. Anna Dilger, Dr. Jennifer Hardesty, Dr. Karen Rodriguez’G, Local Alumni**

#### Undergraduate Research Workshop #3
- **Friday, April 5th, 3:00-4:00 PM**
- **Presenter: Dr. Karen Rodriguez’G**
ACES Undergraduate Research Day

- Tuesday, April 16th, 9:30 AM-1:30 PM
- Presenters: ACES James Scholars – Poster sessions showcasing discoveries made during Undergraduate Research experiences.

First Annual ACES Undergraduate Research Day: Tuesday, April 16th, 9:30 AM-1:30 PM
Heritage Room, ACES Library

Please join us as we celebrate the accomplishments of sophomore, junior, and senior ACES James Scholars who have completed their capstone experience – an ACES Undergraduate Research project – during the current academic year. Our first annual ACES Undergraduate Research Day will feature poster displays by ACES James Scholars just like you, along with an oral presentation of research by John Bieber (a junior ACES James Scholar in NRES and the first Campbell Scholarship recipient) starting at 12:00 noon. You won’t want to miss this exceptional opportunity to get a glimpse of your future, network with your peers, and learn about all the exciting discoveries being made by our intrepid Undergraduate Researchers in ACES. Please watch our social media outlets and your U of I email account for additional updates as they become available.

ACES James Scholar alumna Rachel Janovsky (B.S. in ACE, Class of 2018) displayed her Undergraduate Research poster at the ACES Library during spring 2019.

Spring Awards Assembly

- Friday, May 3rd, 3:00-4:00 PM
- Presentation of awards to graduating senior ACES James Scholars, Orville G. Bentley Award winners, the Leander J. M. Haynes Humanities Book Prize winner, and JS-ACT members.

How to Earn Honors Credit for Your Coursework with an Honors Credit Learning Agreement (HCLA)

ACES James Scholars are required to complete four courses with honors credit before they graduate. Freshmen are expected to complete their first course with honors credit during their first year in the Honors Program. The vast majority of H grades (the transcript notation for honors credit earned) come from Honors Credit Learning Agreements (HCLAs). The Honors Program’s electronic HCLA (eHCLA) system, which can be accessed at http://go.illinois.edu/ACES_HCLA, allows you to prepare HCLA requests and have them sent directly to your instructors. The instructors can then review the HCLA request and respond with approval or else request additional information from you about the proposed HCLA. Finally, the HCLA proposal is reviewed by Rob Chappell, the Assistant to the Honors Dean, and confirmation emails are generated to you and your instructor.

The entire HCLA process is described from start to finish in the recently updated “eHCLA Factsheet,” which is available from our website at http://academics.aces.illinois.edu/honors/james-scholars/guide. This handout also includes information on due dates for HCLA submission, plus some suggestions on the types of honors assignments that can be undertaken. Questions about HCLA policies and procedures may be directed to Rob in 128 Mumford Hall (rchappel@illinois.edu, 217-244-1684).
Why Did I Become an ACES Illini?
By Omkar Haridas (CPSC & CS Major, ACES James Scholar Class of 2022)

In Class XI, I had to choose one subject out of Computer Science and Biology. This was a very difficult decision, which nearly went the other way, but I decided on Computer Science in the end. I knew my future aspirations would, from then on, center around Computer Science. Yet, I still wished to think outside the box and add some component of Biology, in addition to Computer Science, for my Undergraduate degree.

While researching the Undergraduate programs at various universities, UIUC stood out to me; not only for its renown in the fields of Computer Science and Agriculture, but also for its newly introduced major of Computer Science + Crop Science. Through my research, I saw that this combination of subjects was unique to UIUC. This caught my attention, for this was an unexpected combination involving subjects of great interest to me, and I chose to delve deeper.

Looking even more into the course, I could see that there was very innovative and novel content to be learned from top professors and industry experts in both Computer and Crop Science. My mind raced with the possible applications these subjects could have in tandem at a global University known for the strength and rigor of its programs.

When it came down to deciding which University to attend, this opportunity to learn deep and wide, through a mix of both theoretical and experiential learning, and being able to study both disciplines of my interest, became the deciding factors. I believe that through my learnings here, I will be poised to make a global impact through innovating new thinking, promoting the development of better seed varieties, and utilizing natural resources to enhance productivity, thereby being able to feed billions in a sustainable way.

This is what made me join UIUC, and thereby study in the College of ACES as I chose to take up this unique program.

My Journey to the University of Illinois: Charting a Course for the College of ACES
By Claire Grogan (B.S. in NRES, ACES James Scholar Class of 2016)
Reprinted from Cursus Honorum XII: 2 (Autumn/Holiday 2012)

I firmly believe in new starts. Not only was I overjoyed to graduate from high school; I was relieved. I knew where I was heading in a few months, and the thought of that alone proved to me that I must have done something right during high school.

I visited the University of Illinois back in junior year and immediately fell in love with it. I liked the openness of the campus, and I especially liked the fact that there were so many people who attended. The main reason why I was attracted to the U of I was because of its ACES College. I spent many nights researching the environmental science programs of different colleges, but none spoke to me quite like ACES. By visiting the website, I learned that my interest in environmental awareness could be deeply explored and strengthened by attending a school that cared so much about teaching in a growing field. This is also how I found out about all the different departments in the ACES College that provide key perspectives to a rather large topic. I decided that the Natural Resources and Environmental Sciences Department was right for me because I would be able to combine the academic aspect of the College with the so-
cial aspect needed for informing the rest of the population about our environmental issues. I was very excited to apply to the U of I with a major picked out because it made me feel like I was already a part of something bigger than myself.

When the news came in November 2011 that I was not only accepted to the U of I, but also accepted into the ACES College, the rest of my senior year fell into place. I could clearly plan out my goals for the rest of my high school career so that I could ensure an easier and more beneficial freshman year of college. Little did I know that in January 2012, I would find out that I was eligible for the Jonathan Baldwin Turner Scholarship, and that I also was a James Scholar. I was so honored with the news that I became a James Scholar because it opened so many doors that I didn’t know existed. I relish the fact that I can “upgrade” any course to earn honors credit because I enjoy a good challenge. I can’t wait to meet the other James Scholars. It’s exciting to know that there is already a family waiting at the U of I for me to be a part of.

The JBT Scholarships are named after Jonathan Baldwin Turner (1805-1899), one of the Founding Fathers of the University of Illinois (1867). (Photo Credit: Public Domain via Wikimedia Commons)

One of the most important things I had to prepare for during my senior year was my interview for the JBT Scholarship (on Friday, February 10). I had only one previous experience of an interview, so this opportunity was not only exciting, but extremely nerve-racking. Before I went in for my interview, I had a chance to converse with a senior who was also in NRES. She made me feel extremely welcome and had great advice, especially about research and studying abroad. She wished me luck before I went into my interview, which shows the care and team spirit the ACES students radiate. I greatly surprised myself with how relaxed I felt during the interview, and this showed me that I was comfortable with talking about the topic I care so much about. The whole experience strengthened my confidence in speaking and also taking on a leadership role. I remember jumping up and down with joy after watching my own personal YouTube video that Dean Emmert sent to congratulate me on my scholarship. It was unbelievable!

One of the events I was greatly looking forward to during my senior year was Explore ACES (on Saturday, March 10), because it gave me a chance to meet other people who were also interested in environmental studies. My dad and I really enjoyed the chocolate tasting activity because we both love chocolate! It was definitely a busy day, one filled with different activities that explained what ACES has to offer. Every department had a bulletin board explaining their field. I spent the most time at the NRES board. I left ExplorACES more excited than ever about my freshman year.

Only three days after I graduated from high school, I went to registration day. It was nice seeing the ACES students in one room learning about the expectations and courses. I did not think there would be that many people, and that was only for one day of registration!

Once the main orientation was finished, we split up into our respective departments. The NRES group had six people, including myself. We met with our advisor to choose our classes. This was the best part of the day because in high school, the students aren’t allowed to pick their schedules. I loved picking the times for my classes, and it made me feel like I was more in control of my future. Overall, it was an amazing day because it was a precursor of what was to come on Monday, August 27 (the first day of the fall semester).

I am so proud and ecstatic that I am a U of I student, and I am unbelievably grateful that I am an ACES student. The ACES College is what drew me to the school, and I cannot wait to show what I can bring to the table.
Adventures with Kids and Chemistry: The REACT Program
By Dr. Lerin Rives (B.S. in ANSC, ACES James Scholar Class of 2009; D.V.M., University of Illinois College of Veterinary Medicine, Class of 2013))
https://chemistry.illinois.edu/newsroom/public-engagement-and-outreach/REACT
Reprinted from Cursus Honorum VII: 6 (January 2007)

I found participating in the Kids and Chemistry (REACT) Program to be a very rewarding experience. I first found out about it when registration times were announced in my CHEM 102 (General Chemistry I) class. I had an interest in signing up then, but I let the deadline slip by and figured that I would do it another time. So when two students announced it again in my CHEM 104 (General Chemistry II) class, I told myself that I would do it. (My decision to participate in Kids and Chemistry came before my decision to apply to be a James Scholar.) My goal was primarily to boost my self-esteem in chemistry, since I had struggled through 102. Though I studied hard and learned a lot, my grades did not always reflect my effort. I figured that if I could be successful in teaching children how to do chemistry, then at least that would prove that I could do something right.

During my training session, I believe that I was the only person taking notes. Though handouts were given to us, I wanted to make sure that I understood everything correctly. The experiments that we would perform involved things that I had not done in lab before, which was great because I learned something new. I was excited to see the demonstrations during my training session because I felt like the little third-grader sitting there in awe thinking, "I didn’t know that! Cool!"

When it was my day to go with a group to the elementary school, I was nervous, but I could not wait to see how things were going to work out. My group got along just fine and worked well together. We had met before and divvied up the explanations for the experiments, so we were pretty well prepared. As soon as we walked into the first classroom, the kids seemed really excited. We started right away, and they were all very responsive to our questions. When it came time to do the small group experiments, they had absolutely no shame in putting on the safety glasses, which is not exactly my favorite part of lab, so I am glad that they got into it. We ran a little short of time in the first classroom, but we still got to do most of the demonstrations.

By the second classroom, we really had it down. The kids in my small group were a little rowdier, but the experiments went just as well as the first time. When we left the school, I felt really good about myself and what my group had done in both of the classrooms. It was so much fun to be able to teach chemistry, since sometimes I forget how much fun it can be. It is scary, but I think that I am coming to grips with the fact that I do like chemistry; it is just not as easy as I would like it to be sometimes. However, with chemistry in mind, I have learned that part of the fun in things is the challenge. The Kids and Chemistry Program offered the perfect relief for a habitually strenuous chemistry schedule, and I most definitely plan to participate again in the spring semester.
Alchemy: The Precursor of Chemistry
By Magister Rob Chappell, Assistant to the Honors Dean
Adapted & Condensed from Cursus Honorum VI: 7 (February 2006)

Most ACES James Scholars enroll in at least one chemistry course during their student years at the University of Illinois. The science of chemistry developed out of the “royal art” of alchemy, whose traditional founder was the ancient Egyptian sage Hermes Trismegistus (“Thrice-Greatest Hermes”). This legendary personage was modeled on Thoth, the divine patron of wisdom and writing in the Egyptian pantheon.

Alchemical researchers practiced a philosophy of life known as the Hermetic Tradition, which was based on the so-called “Hermetic writings.” This collection of books was attributed to Hermes Trismegistus, who was thought to have lived in prehistoric times. However, these writings were actually compiled in the first three centuries CE, and they synthesized a vast amount of Egyptian, Greek, and Abrahamic source material to create what would later be recognized as the alchemical worldview.

One of the basic premises of medieval alchemy was that, by using an arcane substance known as the “Philosopher’s Stone,” ordinary metals could be transmuted into gold. Except in fairy tales, alchemists never accomplished this feat, but we now know that with the proper high-tech equipment, such a marvel can be performed in the lab by adding or subtracting protons to the nucleus of an atom. In effect, particle physicists who transform the atoms of one element into another have made the alchemical dream of transmutation into a reality! Thus, we see that the transmutation of metals, once thought to be a scientific impossibility, was foreseen by the sages who formulated and transmitted the Hermetic Tradition across the centuries.

“[Humankind] will pursue the inmost secrets of Nature even into the heights and will study the motions of the sky. Nor is this enough; when nothing yet remains to be known than the farthest boundary of Earth, they will seek even there the last extremities of Night.”

→ Hermes Trismegistus in Heart of the Cosmos
(Hermetic Tractate, Early 1st Millennium CE)

Contact Information
News Bytes for Neophytes is published monthly throughout the academic year for distribution to freshmen ACES James Scholars and their Departmental Honors Advisors. Comments, questions, and suggestions are always welcome and may be directed to the Editor, Rob Chappell (rchappel@illinois.edu).