

THE PERIODIC TIMES

STUDENT NEWSLETTER - NOV 2023



WELCOME!

BY EDITOR-IN-CHIEF SYDNEY TRIVETTE

Welcome to the November 2023 edition of *The Periodic Times:* Student Newsletter! Here, you can find updates and news regarding the Department of Chemistry and Fermentation Sciences faculty and students. In this edition, you can find information regarding jobs and internships and helpful tips for class registration. Read through updates on the Forensic and Fermentation Club along with the Appalachian Chemical Society. Also hear from Dr. Bates, Dr. Wallen, Dehlia Lang, and alum Megan Learn!

We hope you find this newsletter resourceful and engaging!

CHEMISTRY AND FERMENTATION SCIENCES NEWSLETTER

TABLE OF CONTENTS

Jobs and Internship Announcements – P. 2

Professional Development Corner - P. 3

Club News - P. 4

Student and Faculty News - P. 5-6

Academic Advising and Course Planning – P. 7

Alumni Spotlight, Dear Labby and Contributions - P. 8

JOBS AND INTERNSHIPS

BY JUSTIN PRICE

Looking for a job or internship? REU Internships:

The National Science Foundation (NSF) has an opportunity for undergraduates to participate in research through Research Experiences for Undergraduates (REU). At an REU site, an undergraduate gets the opportunity to work with faculty of the host institution on a research project that follows the REU site theme. There is a multitude of research focus topics in chemistry and beyond. Many of these opportunities are held during the summer. Stipends for students are granted and there is often assistance for housing and travel.

Link to the NSF Website

(https://new.nsf.gov/funding/opportunities/research-experiencesundergraduates-reu)



The Career Development Center is a great resource to help improve your LinkedIn profile and networking skills.

There is even a resource to have a professional headshot taken! You can access these resources online at https://careers.appstate.edu/

Phone: (828) 262-2180, Location: Room 222, Plemmons Student Union, 263 Locust St, Boone, NC 28608.

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LinkedIn as a Job Search Tool:

LinkedIn is often touted as the social media of job search websites. The website is set up in a way that allows for quick professional connections with colleagues, acquaintances, and employers. When you update your LinkedIn profile to include the school you attended, you are even able to see if any Appalachian State graduates work at a company of interest.

LinkedIn can be a great resource to quickly browse a multitude of companies, their goals, and their open positions, as well as gather an idea of what they are looking for in potential employees. The jobs section of LinkedIn can be tailored to show you jobs hiring for your interest areas and skills, as well as jobs that you are qualified for that may be out of your interest area.

The usefulness of this tool cannot be understated. To effectively use LinkedIn, a complete profile should be created that highlights your applicable skills and professional goals in a succinct manner. This will help you to stand out to employers and create a network of other users that will make job searching easier.

PROFESSIONAL DEVELOPMENT CORNER

BY JOANNA MCCONNELL

Whether you're graduating this year, or just starting at App State, the Career Development Center has an abundance of resources to help you become the ideal candidate in your chemistry career!



Feeling overwhelmed looking for a job? Use the Career Development Center's Job Search Strategy:

- 1. Do a self assessment: Ask yourself what skills you have, what makes you competitive, and where you want to be located in the future.
- 2. **Know your options:** Check out tools like LinkedIn, Handshake, and Buzzfile to see what career options you have that align with your major.
- 3. **Be the best candidate for the job:** Show you're a good fit for the organization by doing your research, preparing your resume.
 - a. Struggling with how to write the perfect resume? Make an appointment with a career coach here:https://appstate.joinhandshake.com/stu/ appointments
- 4. **Use and grow your network:** Search LinkedIn for alumni from the chemistry department, or connect with friends and family to let them know what you're interested in as a career!

Nervous about an upcoming interview? Here's some tips!

- Make sure to dress professionally to let the employer know you're serious about the position
 - Can't find anything to wear? Check out the Look Smart Career Clothing Closet open between 11 am - 2 pm in the Career Development Center!
- Practice by reviewing frequently asked interview questions
- Study the organization's culture, and have questions prepared to ask at the end of the interview
- Talk about things that highlight your skills find a way to turn your negative things into a positive!
- Be courteous, professional, and friendly to everyone you meet!
- Always write a thank you note to your employer this will let them know that you enjoyed your time and are appreciative of the interview
- Finally, schedule an appointment for a mock interview here: https://appstate.joinhandshake.com/stu/appointments

Good luck with your future interviews!

CLUB NEWS

BY DEREK BROOKS

LOOKING FOR WAYS TO BE MORE INVOLVED WITH THE DEPARTMENT?

THE APPALACHIAN CHEMICAL SOCIETY, FERMENTATION SCIENCE CLUB, AND FORENSIC SCIENCE CLUB ARE OPEN TO ANYONE INTERESTED IN CHEMISTRY, FERMENTATION, OR FORENSICS. ALL THREE CLUBS CAN BE FOUND ON ENGAGE, AND YOU CAN EMAIL THE RESPECTIVE FACULTY ADVISORS/OFFICERS FOR MORE INFORMATION ON HOW YOU CAN GET INVOLVED. Join the Fermentation Science Club for the chance to make your own pizza from scratch along with other tasty fermented products. Contact asufermentationclub@gmail.com or scan their QR code to join their email list and stay up to date on meeting times





Tentative Meeting Schedule October 30: Making pepperoni. November 6: Making mozzarella tomato sauce. November 13: Making sourdough starters. November 27: Making fermented pizzas.



The Appalachian Chemical Society meets on Thursdays from 6-7 PM. Contact the president Luke Darney (darneylbeappstate.edu) to get involved. Come see the annual Fall Chemistry Demo Show on November 2, 2023, for some flashy and fun chemistry experiments! Members will also get the chance to make their own stickers in the following weeks.

The Forensic Science Club meets on Mondays from 7-8 PM in GWH 150. Contact the president Kaitlyn Kozicki (kozickika@appstate.edu) for more information on how to get involved. Join the Forensic Science Club on November 9, 2023, for a discussion on forensic psychology with a guest speaker from the psychology department.



STUDENT NEWS

Dehlia Lang

BY GEANNA DOPICO

Dehlia Lang is a senior seamlessly juggling two concentrations in Chemistry and a longterm research position under Dr. Eduardo de Campos. This year, Dehlia traveled to the American Academy of Forensic Sciences in Orlando, FL alongside her research advisor to share her developments in toxicology with renowned scientists. Her poster "Chemical Characterization of Commerical CBD Oils" grabbed the attention of many attendees, who couldn't help but to inquire further.

A truly inspiring and relatable character, Dehlia opened up about her imposter syndrome during the event: "I didn't know what to expect. Were they going to like my research and would I have the background to answer their questions?" She continues: "It was nerve wracking. I felt like the youngest person in the room." Dehlia feels the event was rewarding as she was able to mingle with established researchers and practice her communication skills.



Her accomplishments don't stop there. She recently submitted an abstract to the National ACS Conference in New Orleans, LA titled "Development and Validation of a GC-MS/MS Method for the Analysis of Delta 8 THC in Commercial Oil Products." She developed the method on her own over the course of three months through trial and error. No reference data from the literature, Dehlia prepared endless calibration curves to quantify the Delta 8 she liquid-liquid extracted using different parameters.

Dehlia aspires to earn her PhD in Analytical Chemistry and is currently applying to graduate schools. Her resilience and willingness to learn and grow will surely mold her into a prominent figure within the scientific community.

"Courage is not the absence of fear, but rather the assessment that something else is more important than fear." – Franklin D. Roosevelt

Dr. Jefferson Bates:



Recently, Dr. Bates received a National Science Foundation (NSF) Research in Undergraduate Institution (RUI) award. Bates's lab will receive a total of \$86,554 of financial support to work on their research titled, "Extended metal atom chain complexes of Fe and Co supported by a C3 symmetric, scaffold ligand platform." The project is based on controlling the environment of metalatom to metal-atom bonding as this is still a bit of a misunderstood field. The idea is that you take synthesized ligands to control the surrounding environment of 3 metal-metal bonds. By controlling the environment around them, you can start discovering the properties that these metals share with each other. The work will be co-teamed by another group at Furman University led by Dr. Gary Guillet. His team will design and synthesize the new compounds with support from Dr. Bates's group's computational modeling. If you are interested in computational modeling and using digital resources then Dr. Bates's research group is where you want to be!

FACULTY NEWS

BY SAMUEL ALVARADO

Deciding the right project to participate in is crucial for effective planning.

With this in mind, I wanted to spotlight and sought assistance from two professors who generously shared their recent research and academic pursuits.

For the following segment, I'll go into detail on why you should choose either one to lead you to your desired path.



Dr. Christian Wallen:

Running on seemingly never-ending energy, Dr. Wallen has been busy with multiple current events. To start off, his research in coordination and reactivity of hydrogen sulfide with transition metal complexes is in year two of his grant. His research investigates how hydrogen sulfide binds to transition metals to produce catalysts for hydrogen sulfide oxidations. If you are interested in synthetic techniques and procedures with a sprinkle of spectroscopic methods then this is the research for you! He is also working in cooperation with the Turchin Center to produce some incredible pictures of crystals to be included in an artist's work on the effects of carbon dioxide and the environment. Dr. Wallen assisted with the extremely successful ChemAppalooza, where undergraduate students held a series of multiple research projects presented during the summer break with funding from multiple industry partners, with the goal of providing a way to develop communication in the world post-COVID for research students. The research done was in conjunction with labs throughout the Appalachian State Chemistry and Fermentation Sciences Department and was a resounding success. If you ever needed something to do during the summer, the next one could be something you are interested in. Lastly, Dr. Bates and Dr. Wallen will be assisting with a demo show and carefully observing the chemistry club blow stuff up for our pleasure so stay tuned for details on that.

ACEDEMIC ADVISING AND COURSE PLANNING

Important Dates:

Registration Opens: November 1, 2023 Registration Ends: <u>November 14, 2023</u>

BY SYDNEY TRIVETTE

Tips for an easy registration

- **Plan Ahead.** The class schedule search information is already available. Go ahead and look at what classes, days, times, and locations are available to be prepared for advisor meetings.
 - Verify that the classes you want to take are on the campus you plan to attend. Classes will be offered on:
 - Boone (MC) campus
 - Hickory (HKY) campus
 - Online (EX)
- *Know your degree requirements.* Degree requirements can be found in the program of study for each specific major or in your DegreeWorks.
 - Where to find degree requirements:
 - Go to DegreeWorks → https://registrar.appstate.edu/degreeworks
 - Go to Program of Study →https://bulletin.appstate.edu/content.php? catoid=30&navoid=1863
- **Schedule advisor meetings early.** Schedule your advisor meeting as soon as possible. Go ahead and get it out of the way so that you don't get behind.

• Don't forget your permits! Some chemistry courses require permits. These include:

- Quantitative Analysis (CHE 2210)
- Instrumental Methods of Analysis (CHE 3560)
- Forensic Microscopy (CHE 4800)
 - ...and all corresponding labs
- Write down important dates and your PIN. Make sure you know when registration opens for you.
 - Don't know when your registration day and time is?
 - Go to Appalnet Student Self-Service → https://appalnet.appstate.edu/
 - Click Registration
 - Click Check your Registration Status
 - Select the correct term
 - Scroll to the bottom and the date and time will be displayed
 - (day and time of registration is determined by cumulative credit hours)
 - Don't know where to find your PIN?
 - You will only be able to receive your pin either during or after your advisor meeting
 - Go to DegreeWorks→ https://registrar.appstate.edu/degreeworks
 - Scroll to the bottom to the Notes section
 - Your advisor should list your PIN here, after your meeting

ALUMNI SPOTLIGH T BY SCOTT HOPE

Megan Learn

Megan Learn graduated in May of 2023 with a Bachelor's in Chemistry and a concentration in Fermentation Science. Megan also minored in Fermentation and Biology. After graduation, Megan moved to Wilmington, Delaware, and started working with International Flavor and Fragrance, a research company that carries out experiments related to food and beverages. Megan currently works as a fermentation technician in research and development and carries out experiments for fermentation



engineers.

Q: If someone wanted to do what you do, what path should they take?

A: Taking classes where you have to work with tanks and learn how to clean them helped me out a lot. Working in the FER service lab is also a great thing to do because you get hands on experience with the mechanical side of fermentation. Getting an internship can also help out a lot. I had an internship at AMB where I shadowed brewers and helped with daily analysis, cell counts, and gravity checks to make sure fermentations were going as expected.

Q: Do you have any recommendations for people looking to get into fermentation?
A: Chemistry fermentation sciences wasn't my original major but after my first fermentation class
I just sort of fell into it and I loved it! All of the professors are super friendly and very willing to help. Doing extracurriculars like Fermentation Club is also a great way to meet students and professors in the department.

DEAR LABBY

Do you have a question or need advice from a fellow chemistry student here at App? Feel free to drop a line on the google form below and let us know how we can help you out.

https://docs.google.com/forms/d/e/1FAIpQLSfa526nmn6y8EQe7 I6cSPI_fe9_QY7LVefWs7EPiUWXkoWWDA/viewform

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