

THE PERIODIC TIMES

STUDENT NEWSLETTER - MAY 2024



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

Alumni Spotlight - P. 6

Mental Health and Study
Tips - P. 7-8

Chemistry at Home - P. 9

WELCOME!

EDITOR-IN-CHIEFS KAT PROVOST, HARPER BENNETT, AND SYDNEY PARKS

LAYOUT AND FORMAT EDITORS ALYSON GONZALEZ AND LIV HORNE

Welcome to the May 2024 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 job and internship opportunities, including helpful tips on how to prepare for any upcoming interviews you might have. If you're a student in research, or hoping to get into research, this issue is for you! In this issue, you can find a special section with advice from students who have attended conferences, and their suggestions on how to keep on top of classes while at a conference, as well as how they manage the stress of presenting! If you want to convince those close to you that chemistry is cool, check out the featured at-home chemistry experiment anyone can conduct! We want to thank you so much for reading this edition and also thank the team that helped make the April 2024 edition of The Periodic Times possible!

JOBS AND INTERNSHIPS

BY Sierra Malley

Graduating this semester or looking for summer job and internship opportunities?

No worries! Appalachian State's Career Development Center provides a useful platform called Handshake in which students can connect with employers and apply to a variety of jobs or internships based on their preferences. Handshake is a useful tool that companies post daily in search of determined undergraduate and recently graduated students. The incorporated job filter tool is easy to use and can be personalized based on your desired location, position, salary, and job type preferences. If you have any questions about the platform, make sure to reach out to the Career Development Center or sign up for Handshake now at joinhandshake.com!



Interested in becoming a LEAD Tutor?

Make sure to check out the university tutoring services website for more information on the requirements for applying to become a tutor next semester.



City of Charlotte

Government - Local, State & Federal

Current listed job and internship opportunities: The city of Charlotte is looking to fill a Graduate Intern-Laboratory Services position for the summer. At this internship, you will be implementing qPCR techniques and follow laboratory protocols in sample preparation and equipment calibration procedures.



Eurofins

Biotech & Life Sciences

Eurofins is hiring for a full-time Analytical Assay Scientist position in Sanford, North Carolina. The job entails preparing analytical standards and reagents, as well as conducting wet-chemistry techniques.



AmbioPharm, Inc.

Pharmaceuticals

AmbioPharm, Inc. located in North Augusta, South Carolina is looking for Purification Chemist I candidates. Hired professionals will purify peptides through chromatography and other purification techniques.



PROFESSIONAL DEVELOPMENT CORNER

In the age of technology, preliminary phone interviews are becoming more common. Here are some tips from the Career Development Center for crushing a phone interview:

Locate a quiet space; Use a landline if possible: Background noise can be amplified and will be distracting for you and the interviewer. Ensure a reliable and clear connection. The Career Development Center can reserve a space with a landline for phone interviews.

Practice concise answers: Speaking clearly and concisely, avoiding “hms” and “ums”.

Provide key points: Some commonly asked questions include: “Why should I hire you?” and “Why do you want to intern or work with us”. Prepare 2-3 clear points that outline these questions

Ask questions!
Remember your calendar: Know when you are available. Having a calendar with you is helpful.
Allow yourself time to think: Thank an employer for the interview and ask if you can respond with a decision within 24 hours. Try to not accept an internship or job over the phone.

Whether your interview is over the phone, or face-to-face, here are some ways to best stand out in an interview:

Research the company: Having prior research allows you to ask the right questions in an interview.

Wear bold colors: Professional attire doesn't have to be boring! Show your personality by wearing a bold tie or dress shirt, as long as it matches the rest of your outfit. Having a bold pop of colors opens up the ability to explain your choice to give interviewers a bit more insight into who you are!

Arrive early for the interview: Arriving early allows you to compose yourself and relax. It also gives you more time to formulate questions and answers.

Showcase your strengths and areas for improvement: There's nothing wrong with lists! Write a list of strengths and weaknesses and bring them with you. To write a good list, review your resume and identify your top skills that relate to the position. Highlight how your strengths can help the company reach its goals while improving your performance.

Ask unique questions: Asking specific/tailored questions will better help you determine if this role is the right one for you. Bring a list of questions you have! This shows employers your inclination to understand the position better.

Be aware of your body language: Sit up straight and make eye contact. These show you are engaged with the interviewer and interested in what they have to say.

Engage in casual conversation: Pleasantries are always helpful in building an authentic connection unrelated to the role you are pursuing.

Reiterate your interest in the position: Stress your interest in the position and thank the interviewer for their time! They should provide more details about the next steps, but if not do not hesitate to reach out 24-48 hours after the interview to get an update.

By Sydney Parks, Kat Provost,
Harper Bennett

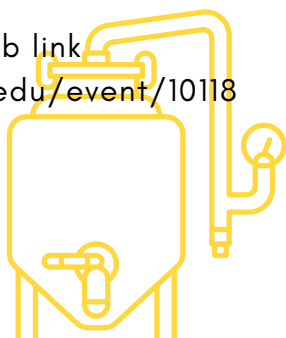


Fermentation Sciences Club

The fermentation science club is preparing for Beer Fest! They are hosting a meeting on Monday, April 29th from 5 to 7 to discuss their support for the annual High Country Beer Fest. Funds from High Country Beer Fest have been used for scholarships and research grants, staffing, equipment, and more. There is no experience required and all are welcome to come including those who are not chemistry or fermentation sciences majors. For those interested in helping out with the upcoming event either contact asufermentation@gmail.com or click the link below. If you are of age and are interested in supporting the fermentation sciences by attending Beer Fest click the second link below.

Fermentation Sciences Club link
<https://engage.appstate.edu/event/10118371>

Beer Fest Link
<https://hcbeerfest.com/>

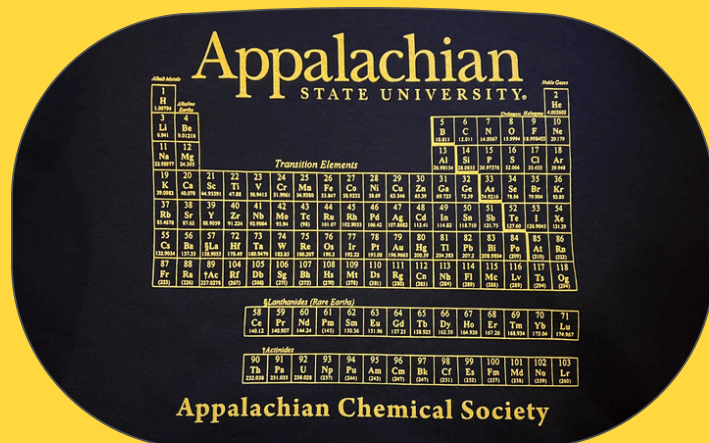
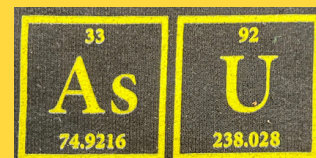


CLUB NEWS

By Hudson Koch

Chem Club

The chem club is wrapping up for the year which means it is time for the end-of-year celebration. This will involve the chance to tie-dye any chem club merchandise purchased earlier in the year. All are welcome to come and membership is not required. Earlier in the month the chem club held a senior student panel which allowed seniors to talk about their experiences in applying for graduate school. The presentation was geared toward those considering applying for graduate school in the next couple of years. It was informal and was given in a town hall-style format. Other students asked questions ranging from the application process to moving expenses and financial aid. Around 20 to 30 students showed up and actively participated. Chem club meetings are held from 6-7 in GWH 112. For more information about joining or getting involved in the club check out the link below or contact President Luke Darney at darneylb@appstate.edu.
 Chem Club link
<https://engage.appstate.edu/organization/appalachian-chemical-society>



STUDENT & FACULTY NEWS

By Kat Provost

Ever wonder what your classmates are up to?



Winner of the best undergraduate poster for the 27th Annual Celebration of Student Research and Creative Endeavors, I sat down with Teddy Shepherd to talk with him about his time in the department, as well as his involvement in student research. When asked about how he got into chemistry, Teddy admitted that he actually wanted to study visual art, however, after getting burned out in his senior year of high school, he decided he wanted to choose a different path. He said he enjoyed AP chemistry even though he did poorly in the class, so he decided "Why not chemistry?!" Teddy told me that while being a chemistry major has been challenging, it has also been immensely rewarding for him, as he feels like he has been pushed beyond what he thought he was capable of and is now performing at a level he didn't believe he could perform at. He also talked about his entry into research, in which he said he emailed a few professors in only his second semester of undergrad and began working in Dr. Brooke Christian's lab soon after. Though his research has had significant setbacks over the two years he has been in research, Teddy's number one advice to chemistry students is to try and get involved in research as early as possible. While it might not be for everyone, he believes research provides a level of responsibility for one's own work that everyone should experience before moving on in life. His second piece of advice for all chemistry students is to take care of yourselves. Teddy stressed the importance of finding time to breathe, eat, and get a good night's sleep, as all of these things are important for long-term success for everyone, especially chemistry majors! Teddy is currently a junior, planning to graduate in May 2025, so we are beyond excited to see what else he accomplishes here at App State, as well as what he accomplishes once he leaves here.

Meet Isaac Critcher in the Machine Shop of Garwood

Isaac Critcher holds the title of Machine shop Supervisor for the College of Arts and Sciences at Appalachian State University; however, he holds a lot of value beyond his formal designation. With a career spanning 19 years within the university, Isaac's journey began with a welding degree from Wilkes Community College before he transitioned to App State to continue his education. While studying at App State, he was offered several different jobs, and eventually worked his way to overseeing the machine shop for the College of Arts and Sciences. Prior to this role, Isaac was employed in the group that was responsible for building automation at the university, streamlining processes, and allowing for enhanced energy efficiency across campus. Isaac has an innate understanding of mechanical systems, this coupled with his background in design, laid the framework for his role as a machinist, allowing him to problem-solve difficult challenges with skillfulness.

Isaac's impact at the university goes beyond his technical proficiency, as his workshops serve as an important place for exploration and hands-on education. Isaac fosters an environment that encourages experimentation and allows for failure as a pathway to success, which allows students to push beyond their boundaries and improve their innovation skills. Beyond this and his daily responsibilities, Isaac is working with the research team that is responsible for Appalair, which is used to monitor the weather as well as the air quality in Boone, North Carolina. Isaac is a pivotal part of this process, as he is responsible for instrumentation repairs, as well as designing additions or improvements to the instruments used on the tower.

Isaac's contributions extend far beyond the confines of Boone, NC. Currently, he is part of the team involved in improving the design of a portable weather station that sits atop Mt. Everest. This project is in partnership with National Geographic, and this team has been successful in improving the design of the station. These improvements have allowed the station to better withstand the harsh environment that is atop Mt. Everest. Beyond this, Isaac is enjoying working with Team Sunergy, which has designed a solar-powered vehicle and uses it to compete against other universities. Isaac allows the students involved with Team Sunergy to learn in his shop, and his design background suits him well as someone who can help the team optimize the vehicle.

Isaac Critcher's journey as the machinist at Appalachian State University embodies his commitment to innovation and education that extends well beyond his formal role. With an open invitation to students to visit his shop, he encourages students to come learn more about the impressive machinery. Isaac has a passion for teaching and hopes to teach the proper use of the equipment in his shop, and believes the new skill sets gained from this will be of great value. Isaac imparts technical knowledge that is an asset to this university and its students. While he may not hold formal teaching responsibilities, the opportunity to learn from Isaac is one that students should not miss out on.



By Isaac Kaufman

ALUMNI SPOTLIGHT

LOGAN JENKINS

Graduation Year: 2023

Degree: BS in Chemistry with a concentration in Forensic Sciences

Currently enrolled in GTCC's paramedic program. This program is going to allow me to get hours to go to PA school in the future.



Tips From Alumni

What study tips would you give to an aspiring chemistry Major?

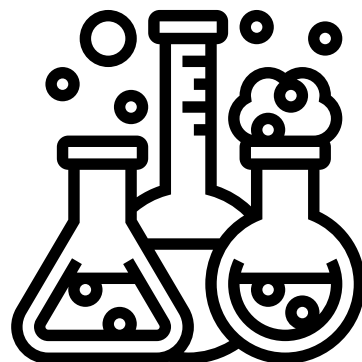
Study tips that helped me most was reworking in-class problems, homework assignments and previous exams. This worked exceptionally well for math-based chemistry classes and organic chemistry. The more practice you have with the material the more it clicks. I would also try to condense my notes on another sheet of paper and pick out the highlights of the unit that we were currently on.

How did you destress and what did you do for self-care throughout your undergraduate experience?

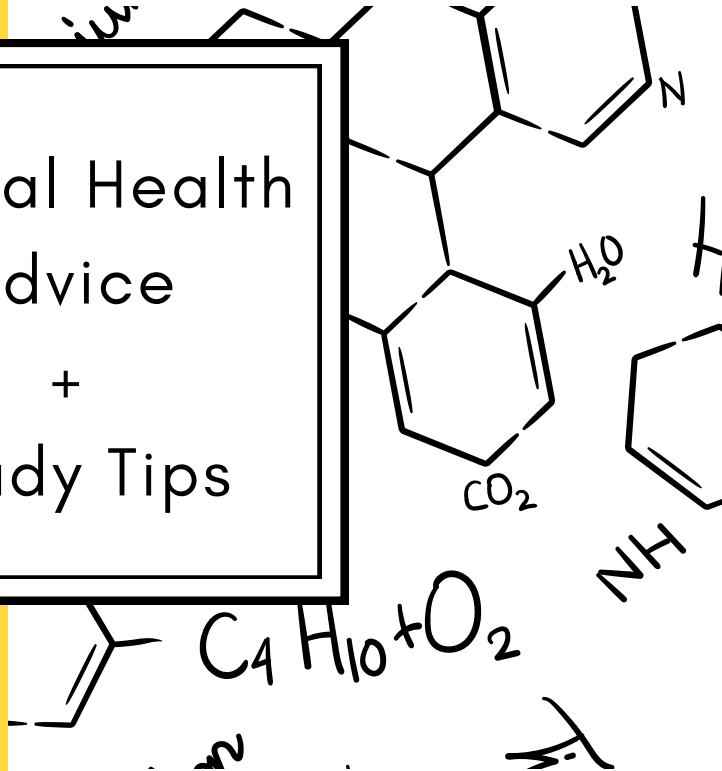
It is very important to try and take time to unwind and destress since at times it can be a demanding major. I would usually destress by going outside on Sanford Mall with friends in between classes to be out in the sunshine and catch up.

What did you do after graduating with a chemistry degree from App State and how did it prepare you for the future?

After I graduated, I decided I wanted to go into medicine. I am currently enrolled in GTCC's paramedic program. This program is going to allow me to get hours to go to PA school in the future. But, I believe that my education in chemistry is aiding my understanding of drug chemistry and medical math to aid in patient treatment and understand drug interactions within the body.

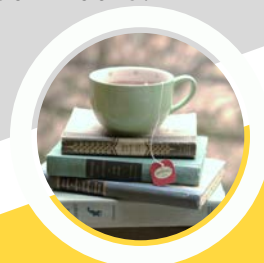


Mental Health Advice + Study Tips



Featured Interview

Anna Bryant, a senior biochemistry major was interviewed about her experience with stressful times in her college career including preparing for conferences, exams, and overall mental health care.



Q: What is your advice for studying for finals/exams either at a conference or while preparing for a conference?

I am a big fan of study buddies. If someone who's going to the conference with you is also in your class or studying for another exam, I'd recommend planning a specific time on your trip to have a study session. I think it's important to set a specific study time so you can set time aside for work and have some time to enjoy yourself at the conference! Having planned study time can help separate school work from other fun activities like hanging out with the other students and professors at the conference and learning about all the cool science others are doing!

Q: How do you deal with the stress of conferences?

I like to practice my poster pitch to anyone who will listen. Nailing down your 2-ish minute overview of your project will make you more confident to speak to others about your research. It is important to identify the essential information to speak about and let the people at your poster ask more questions if they are interested. Physically to calm my nerves, I also like to do somatic holds. If you press down on your chest with one hand, on your belly with your other hand, and take deep breaths, it is really soothing and a quick reliever for me. I usually try to do this for about 5 minutes before I have my poster session. Once I speak to a few people, I really get in the groove of it and find the poster session much easier.

Q: What are you doing to prepare for your thesis defense?

I am currently going back and forth between writing and editing. I talk to my thesis mentor, Dr. Culpepper, at least once a day even if it's just a quick chat to establish updates and where we both are on the thesis. This daily check-in keeps me focused and helps me identify what I need to work on. The introduction section has been the hardest to write just because of the level of depth a thesis requires. So to anyone writing a thesis, I would definitely recommend getting started on the introduction as early as possible since this section will remain mostly the same as you progress through your project. It also helps to get information straight in your head the earlier the better. I found that I had a lot of information convoluted until I looked into it more and I feel like I understand my project much better now!

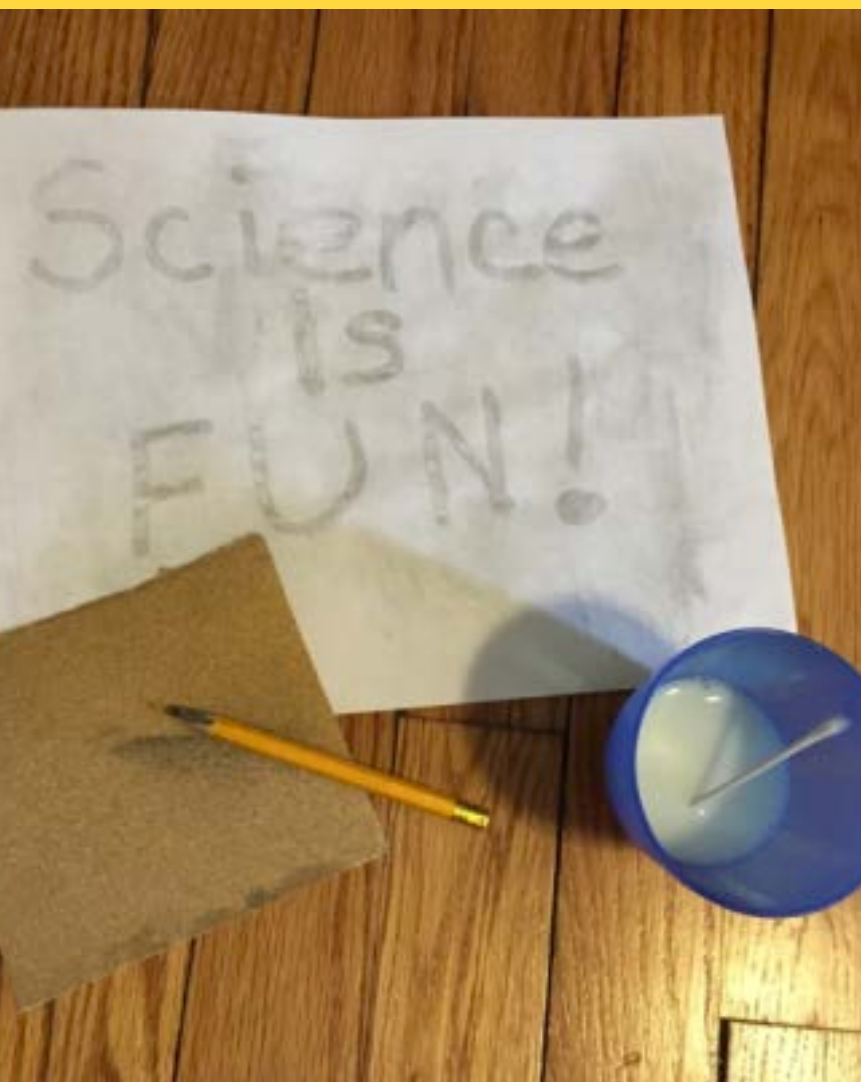
Q: Do you have any advice for students thinking about chemistry as a major?

The chemistry department at App is phenomenal! If anyone is thinking about majoring in chemistry I would recommend it. It takes a lot of hard work, but the students, professors, and opportunities here make it worth it. Always take advantage of LEAD tutoring and professors' office hours. The people here want you to succeed and will help you achieve your goals in any way they can!

By: Riley Deguzman

CHEMISTRY AT HOME

By. Sydney Parks



WANT AN EASY AND FUN CHEMISTRY EXPERIMENT TO DO AT HOME?

Try out this invisible ink experiment that is quick and simple that your kids are sure to love!

INVISIBLE INK

MATERIALS NEEDED

- Baking soda
- Water
- Paper
- Measuring cup
- Paint brush
- Light bulb/ lamp
- Grape juice (optional)

INSTRUCTIONS

- Mix equal parts water and baking soda
- Use a paintbrush to write a message
- Let the ink dry
- See the invisible message by either holding paper over a turned on lightbulb or by painting a layer of grape juice over the paper
- Both methods work, pick whichever is easier for you