



# ASTEE

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March 2021

ASTEE Newsletter

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## Message from the President

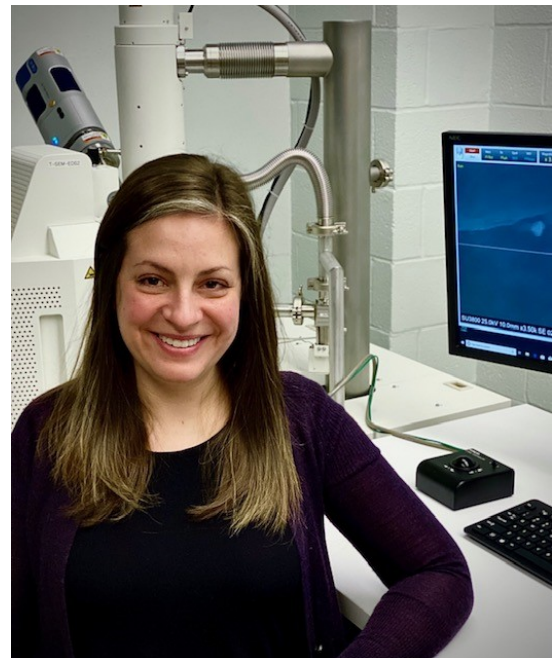
ASTEE Members,

There is no single word that can accurately sum up the year 2020. While there were many ups and downs, ASTEE made the necessary changes in order to adapt to something none of us have experienced before. I would like to thank outgoing President, Sandy Koch, the Board of Directors, as well as the Committee chairs and Committee members for their hard work during these unprecedented times. I would also like to thank Chad Schennum for serving as

Treasurer for 6 years! The amount of dedication he has shown ASTEE is inspiring.

The Education Committee was able to provide several webinars throughout 2020 since we were unable to meet in-person. Our ASTEE website has proved an invaluable tool during 2020, provoking and giving a platform for ongoing discussions. I am hopeful 2021 will give us the opportunity to expand our knowledge through meetings, sharing research, and discussing interesting cases and evidence.

2020 proved to be an interesting year to say the least. It brought about drastic changes such as quarantines and social distancing. These changes not only affected our Trace community professionally but personally as well. During quarantine, I had the opportunity to stay home with my children and work in the lab at night. I heard of



## Message from the President continued...

several laboratories offering staggered schedules to help with social distancing and support those employees without childcare. While at home, I often thought about how other friends and colleagues were handling modifications to every-day life. One day while at home, my 5 year-old son started asking me questions about dinosaurs. Since dinosaurs were not in my college forensic science curriculum, I felt like I was on an episode of Jeopardy. After about the sixth question, I finally caved and said “I don’t know.” Flatteringly, he seemed surprised that I did not know the answers. Unlike the court system, my response led to the age-old child question “Why?” My response, “I don’t know everything.”

And with that response, I thought of my friends and colleagues within this great organization. I thought of all the knowledge and information I have gained through ASTEE whether it be through webinars, presentations, meetings, or discussions. I also felt comfort with my response because first of all, it is the truth. Secondly, I thought of all our ASTEE members that we can reach out to when we “don’t know everything.”

ASTEE offers so much to the Trace community. If we can learn anything from 2020, I hope that it is that not one person knows everything but together we can continue to advance our knowledge in forensic science. In a year where in-person meetings and trainings were cancelled, we continued to learn and grow together, virtually. It was incredible to watch our organization adapt.

I have always been a proud ASTEE member but to be elected president and serve this amazing organization is truly humbling. I hope 2021 brings about in-person opportunities but if not, I know ASTEE will continue to persevere through any and all challenges. We will continue to grow and learn together. I am excited more than ever to see where this year takes us!

Sincerely,

*Emily Weber*

Emily Weber

2021 ASTEE President

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## Important Dates

March 31st	ASTEE membership fees due
April 1st	Student Research Project Award applications due
May 3rd	Research Grant Award applications due

# Microscopy Courses

## McCrone Research Institute

Courses range from basic microscopy to specialized applications focusing on particular techniques, materials, and fields of research.

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- *Asbestos Identification*
- *Small Particle Identification*
- *Forensic Microscopy*
- *Environmental Analysis*
- *Indoor Air Quality*
- *Crystal Characterization*

Complete course descriptions, course calendar, and secure online registration are available at [www.mccroneinstitute.org](http://www.mccroneinstitute.org).



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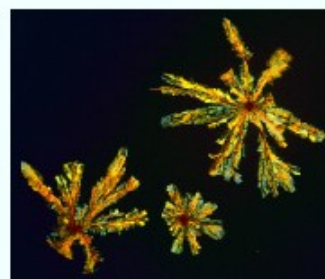
## COMING SOON

the  
microsc  pe

## Volume 68, No. 2

We are pleased to offer the next issue of **The Microscope** journal Vol. 68:2 (2020) as an online edition, which can be viewed on the McCrone Research Institute website, [www.mccroneinstitute.org](http://www.mccroneinstitute.org). Featured research articles include:

- The microscopical examination of the roughness of surfaces, by John Russ.
- Brian J. Ford's Critical Focus column on Covid-19 vaccinations.
- Microscopical analyses of asbestos-containing fibrous adhesive, by James Millette, et al.
- New microcrystal tests for illicit drugs, diverted pharmaceuticals, and psychoactive bath salts, by McCrone Research Institute.



For more than 75 years, **The Microscope** has been the foremost journal of microscopy for researchers in a variety of industries, including pharmaceuticals, law enforcement, forensic science, materials analysis, environmental services, academia, conservation, and government labs.

## Microscope Publications

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[themicroscope@mcric.org](mailto:themicroscope@mcric.org)

## ASTEE at a Glance – Committee Updates

### Awards Committee

The ASTEE Board of Directors have opened up two awards for this spring.

The Student Research Project Award is open until April 1st. This is a \$250 research award for undergraduate or graduate students that are performing research specifically in the field of Trace Evidence. The applicant must be pursuing a Bachelor's of Science or higher degree in the natural sciences or forensic sciences.

The Research Grant Award is open until May 3<sup>rd</sup>. This award provides \$500 for a project that will advance the field of Trace evidence. Applicants must have proof of membership in ASTEE and submit a written research proposal. The award recipient will provide a summary of their research results to the ASTEE Board of Directors within one year of receiving the grant.

Award information and application materials can be found at [www.asteetrace.org](http://www.asteetrace.org).

### Communications Committee

Keep an eye out for two new categories coming soon on the ASTEE Forum! We will be adding a category for Research, in order to highlight and discuss both ASTEE's research needs as well as research needs updates from the OSAC Trace Materials Subcommittee. If you are a practitioner with a research project in mind, or an academician looking for Trace-related projects, we hope this new resource will prove valuable.

We will also be adding a category dedicated to Forensic XRF. This was a request from the former Forensic XRF Yahoo! group, which was recently discontinued by the web service provider. We are excited to be able to provide a new home to the Forensic XRF Yahoo! group, and a platform for their discussions to continue through the ASTEE Forum.

### Education Committee

Sandy Koch and Patrick Buzzini have stepped down from the Education Committee. A huge thank you to both of them for their dedication to furthering trace evidence knowledge and instruction!

Be sure to visit the ASTEE member forum! We have been posting various journal articles, conference materials, and online resources for your enjoyment. Please post anything you would like to share with the membership! If you have any questions, please contact the committee at the e-mail listed below.

One of the goals of the committee this year is to offer at least four webinars this calendar year (one per quarter). If you have ideas for potential webinars, you can recommend someone (including yourself) who may be able to offer a workshop or webinar, or you or your laboratory are interested in hosting a workshop (virtual or otherwise), please send an e-mail to [astee.edu.committee@gmail.com](mailto:astee.edu.committee@gmail.com).

## ASTEE at a Glance – Committee Updates continued...

### Publications Committee

#### *Newsletter*

The Publications Committee is always looking for new content to share with ASTEE Members! Please send any ideas for ASTEE Newsletter content, including *News You Can Use* topics, to Kiersten Coffin ([Kiersten.Coffin@dps.texas.gov](mailto:Kiersten.Coffin@dps.texas.gov)).

#### *JASTEE*

The Publications Committee would like to thank Jeremy Morris for his time as Journal Editor and welcome Heidi Prough as the new Journal Editor! Also, JASTEE is happy to welcome Michelle Ponschke as the Formatting Editor for the Journal. A big thanks to everyone who expressed interest.

An issue of JASTEE was released at the end of 2020 with some great articles on a range of topics; check them out if you have not yet had a chance to! JASTEE has manuscripts in the review process, but is always looking for additional submissions. If you have a manuscript for submission or any questions, please contact Journal Editor Heidi Prough ([ProughH@michigan.gov](mailto:ProughH@michigan.gov)).

### Sponsorship Committee

The Sponsorship Committee has sent out a letter inviting potential sponsors to sponsor ASTEE for 2021. ASTEE thanks our past and current sponsors. Any potential sponsors can reach out to the Sponsorship Committee chair Mike Trimpe at [trimpegolf@gmail.com](mailto:trimpegolf@gmail.com) for more information.

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## 2021 Dues

The New Year is here, which means it's time to start thinking about dues! The ASTEE \$25 membership dues should be paid by March 31st to avoid the \$5 late fee. But this year brings a couple changes.

First and foremost, we have a new treasurer. If you would like to pay your dues by check, please send it to Kelsey Winters at the address found below. Questions can be emailed to her at [kelsey.winters@dfs.virginia.gov](mailto:kelsey.winters@dfs.virginia.gov).

Kelsey Winters, ASTEE treasurer  
Virginia Dept. of Forensic Science  
830 Southampton Avenue, Suite 400  
Norfolk, VA 23510

Second, as we try to move away from using PayPal, we are encouraging anyone who wants to pay electronically to use the new payment method on our website, which is through Stripe. And remember, you can also use this method to set up a subscription with a credit card, so you don't have to remember to make your payment each year! Your card will be charged automatically on the anniversary of the day you started the subscription. Note that you must be logged into your member account on the website in order to pay in this manner. Questions about your member account can be sent to Daniel Mabel at [asteetrace@gmail.com](mailto:asteetrace@gmail.com).

## A WORKSTATION FOR TRACE EVIDENCE ANALYSIS

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- ✓ Accelerants & Explosives



## AVAILABLE MODULES

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RAMAN  
SPECTROSCOPY

FLUORESCENT  
IMAGING

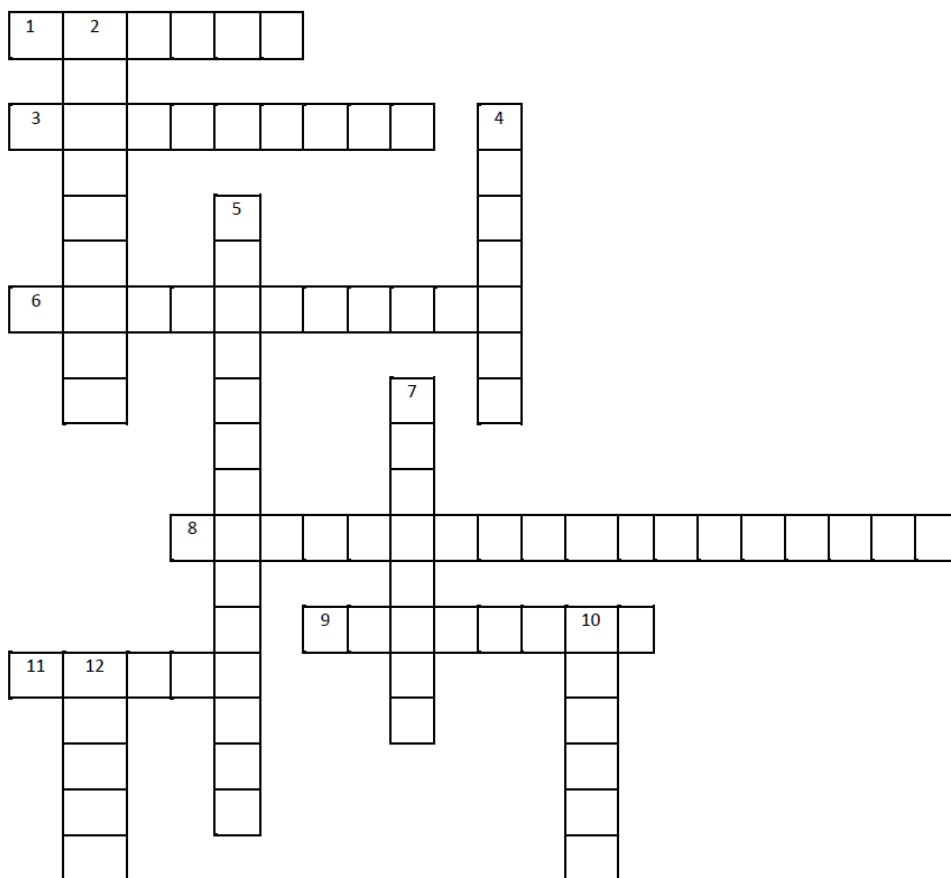
GLASS RI  
MEASUREMENT

IMAGE  
PROCESSING

LIGHT  
POLARISATION

UV-Vis-IR  
MICRO-SPECTROSCOPY

## ASTEEN “Love Edition” Crossword (see page 12 for answers)



### Across

**1.** Who can forget the infamous Love Fern on the movie How To Lose A Guy In 10 Days? And Matthew McConaughey let it die. Palynology could be used to study this aspect of the fern.

**3.** Just like Katy Perry said, “Baby, you’re a firework!” And since its Valentine’s season, you’re a red firework. What chemical produces this color?

**6.** After noticing a perfect impression of your dog’s paw outside, you decide to make a cast of it for a Valentine’s Day gift. What material is most commonly used to make these casts? (2 words)

**8.** Explosives can fall into two categories – high and low – and only one can categorize your affection for candy hearts. What is the main difference between these two categories? (2 words)

**9.** You redid the carpeting in your house as a Valentine’s Day surprise for your partner. However, the surprise is spoiled when fibers of this shape are found all over your clothes.

**11.** Overcoming heartbreak on Feb 14<sup>th</sup> can feel like the classic Annie Lennox song – walking on broken glass. What’s the most discriminating analytical method for glass fragment comparison? (Acronym)

### Down

**2.** Be careful not to set the table on fire when you light candles for your romantic Valentine’s Day dinner. Speaking of fire...what substance are most ignitable liquids usually distilled from?

**4.** You got flowers for Valentine’s Day! But they soil they’re potted in is a very unique color...what color chart can you use to characterize it?

**5.** Your love for Trace Evidence is so hot, it’s almost molten. When a molten appearance is combined with the presence of lead, antimony, and barium, what kind of GSR particle do you have?

**7.** Love can be as complex as a multilayer paint chip. When the source is a vehicle, this nitrogen-based compound is commonly found in the OEM top coat.

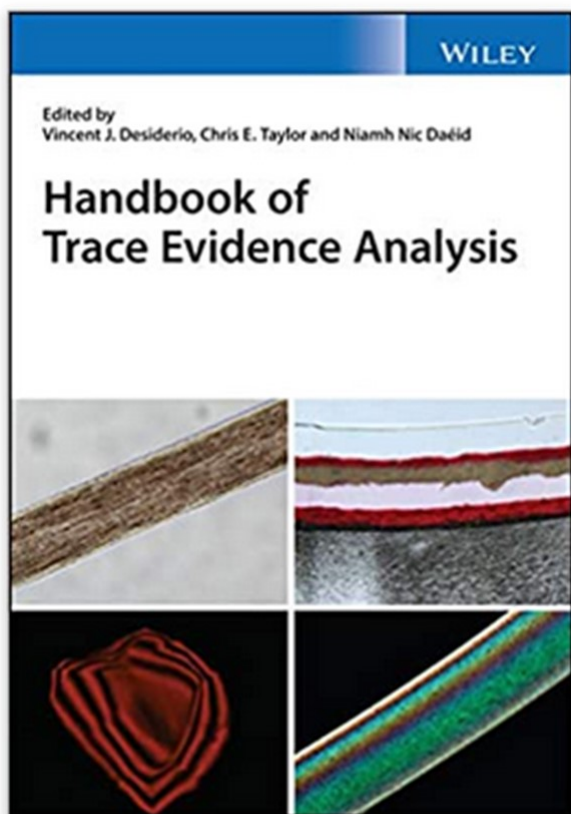
**10.** From the musical South Pacific, you know the best way to get over a breakup is to “wash that man right out of your hair.” But don’t wash too forcefully, or you may pull hairs out with this root stage.

**12.** It’s Galentine’s Day! You and your BFF get friendship necklaces that form a perfect physical fit. However, since they’re mass produced they only have these types of characteristics at first.

## ATTENTION ASTEE MEMBERS

There is a new Trace Evidence book, Handbook of Trace Evidence Analysis, that has been published and copies are now being sold. ASTEE's very own past presidents Chris Taylor and Vinny Desiderio are two of the editors.

The book also features chapters by many distinguished ASTEE members and respected Trace Evidence experts.



Chapter 1: Trace Evidence Recognition, Collection, and Preservation: \*Ted Schwartz, Daniel Rothernberg, and \*Brandi Clark

Chapter 2: Polarized Light Microscopy for the Trace Evidence Examiner: \*Andy Bowen (ASTEE- Past President)

Chapter 3: Paints & Polymers: \*Robyn Weimer (ASTEE- Past President); \*Diana Wright (ASTEE-Edmond Locard Award for Excellence Recipient) and Tamara Hodgins

Chapter 4: Forensic Hair Microscopy: \*Jay Beckert

Chapter 5: Fibers: \*Sandy Koch (Current ASTEE President) and Kornelia Nehse

Chapter 6: Interpretation of Glass Evidence: \*Tatiana Trejos, James Curran, and Tacha Hicks

Chapter 7: Interpreting Trace Evidence: \*Patrick Buzzini and James Curran

\* ASTEE Member

**ISBN-13: 978-1118962114**

**ISBN-10: 1118962117**

Order your copy today!!! More information on this book and ordering information can be found at the following website (please note that other purchase sources are available).

[https://www.amazon.com/Handbook-Evidence-Analysis-Vincent-Desiderio/dp/1118962117/ref=sr\\_1\\_1?dchild=1&keywords=9781118962114&linkCode=qs&qid=1596198810&s=books&sr=1-1](https://www.amazon.com/Handbook-Evidence-Analysis-Vincent-Desiderio/dp/1118962117/ref=sr_1_1?dchild=1&keywords=9781118962114&linkCode=qs&qid=1596198810&s=books&sr=1-1)

Some of the royalties of the sale of the book will go to ASTEE- Thank you Chris Taylor!

UV-VIS ABSORBANCE

UV-VIS REFLECTANCE

UV-VIS FLUORESCENCE

RAMAN

UV-VIS POLARIZATION

GLASS REFRACTIVE INDEX

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## May We Introduce You To...

**May we introduce you to...** Brandi Clarke

**Occupation:** Forensic Science Specialist at the Westchester County Forensic Laboratory in Valhalla, NY

**What Trace Evidence sub-discipline(s) are the focus of your work?** General Trace Collection, Fibers, Impressions, Gunshot Residue, Physical Match, Prepare Material for Nuclear DNA Analysis

**What is the top activity on your bucket list?** The top activity on my bucket list is to take a European river boat cruise.

**What do you like to do in your down time?** I like to spend time with my family in my down time including art projects and building and playing with Legos.

**What is the most interesting place you have been?** The most interesting place that I have been would be Ireland (the Cliffs of Moher) followed closely by France (the Louvre).



**May we introduce you to...** Dana Greely

**Occupation:** Forensic Scientist and Crime Scene Secondary at Colorado Bureau of Investigation

**What Trace Evidence sub-discipline(s) are the focus of your work?** GSR, Fire Debris, Footwear & Tire Tracks, Physical Fit, Wood, General Unknowns.

**Who has been a mentor to you and how have they helped you?** Michael Trimpe, Emily Weber, Carol Crowe, and Alex Rugh have all taught and guided me in this field.

**What is the top activity on your bucket list?** I want to scuba dive with a blue whale. The Rocky Mountains are great at creating this sense of awe and making your stress and worries melt away. I think floating next to the largest creature in the sea would have the same effect under water.

**What is the most interesting place you have been?** Probably spelunking in the glow worm caves of Wai-tomo, New Zealand.



## May We Introduce You To...

**May we introduce you to...** Stefanie Heckman

**Occupation:** Chemist, Trace Examination Section, Forensic Chemistry Center, US Food and Drug Administration

**What Trace Evidence sub-discipline(s) are the focus of your work?** I specialize in the physical examination and characterization of suspected adulterated or counterfeit FDA-regulated products using light microscopy and SEM/EDS.

**Who has been a mentor to you and how have they helped you?** I feel very fortunate that I began my career working with Mike Trimpe at the Hamilton County Crime Lab. Mike enthusiastically shared his knowledge with me. Not only did he teach me technical skills, but he encouraged my involvement in professional organizations, research projects, community outreach, and public speaking. Thank you, Mike!!

**What do you like to do in your down time?** I have two little kids, so they pretty much consume most of my time. But, when I can steal away time for myself, I enjoy quilting and sewing, reading, and gathering with friends and family (really looking forward to doing this again!).

**What is the most interesting place you have been?** My husband and I took a trip to Iceland a few years ago. We were able to see the interesting landscapes including a glacier, geysers, and waterfalls. During a nighttime excursion, we saw a wonderful display of the northern lights. It was a trip of a lifetime!



**May we introduce you to...** Susan Wilson

**Occupation:** Forensic Technical Lead – Materials Analysis

**What Trace Evidence sub-discipline(s) are the focus of your work?** Fibers/Textiles, Glass, Hair, Paint/Polymers, Physical Fit, Tape, Wood/Botanicals

**What is your favorite quote?** *"If you don't like something, change it. If you can't change it, change your attitude."* - Maya Angelou

**What do you like to do in your down time?** I enjoy sea kayaking, hiking, and working on my fixer-upper house. With the isolation due to COVID, I have recently been enjoying some on-line naturalist classes and identifying the birds that come to the feeders in my yard.

**What is the most interesting place you have been?** The most interesting place I have visited was sea kayaking the small islands off the northwest face of Vancouver Island, BC, Canada. On just one of the trips, our group came across a large raft of otters bobbing up and down in the ocean swell, watched orcas engaging in rubbing on a rock beach, and spied seals and sea lions popping up from the water around us (keeping an eye on our group).



## May We Introduce You To...

**May we introduce you to...** Jennifer Remy

**Occupation:** Forensic Scientist III @ North Carolina State Crime Laboratory working in the Quality Unit.

**What Trace Evidence sub-discipline(s) are the focus of your work?** I no longer actively perform casework. I was qualified in hairs, fibers, paint, tape, physical match, pepper spray

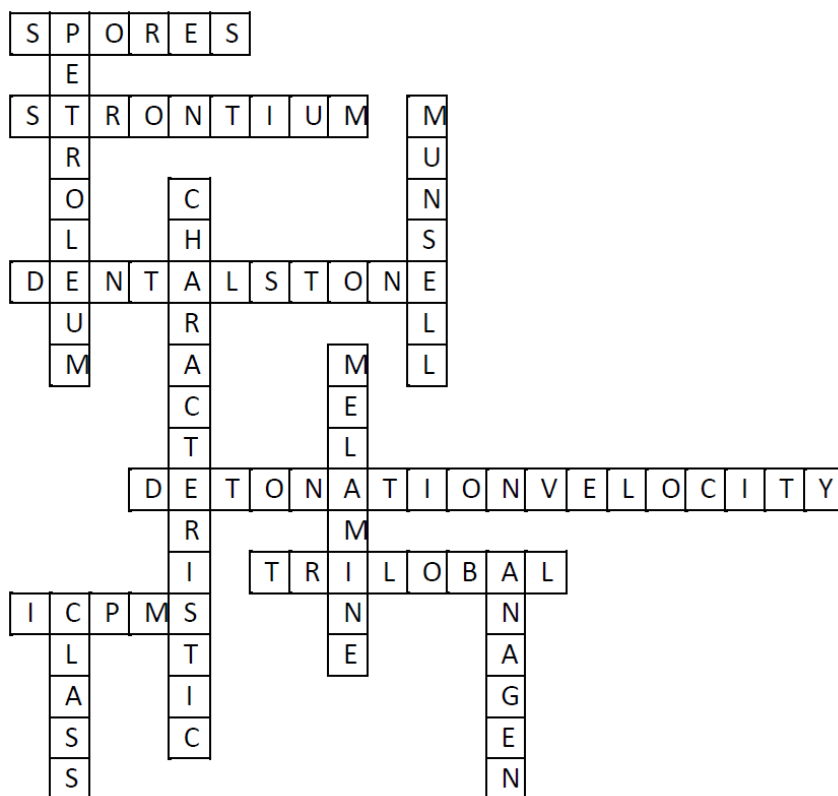
**What is the top activity on your bucket list?** I love to travel and have all sorts of foreign places that I aspire to visit. However, my husband and I have set a goal of taking our two boys to the 48 continental US States by the time they graduate from high school and we are well on our way. In 2019 we spent three weeks on the road, driving over 6500 miles, and visiting over 25 national parks and monuments, as well as all kinds of crazy other places! That being said, I have never been to Alaska or Hawaii, so those are pretty high up on my list of places to visit.

**What do you like to do in your down time?** With two very active teenage boys, there is not a lot of down time. However, when time permits, I enjoy reading, scrapbooking, and quilting. I also try to pry the boys away from the gaming computers to get outside for some hiking, biking, or camping.

**Tell us something that would surprise others about you.** I played inner tube water polo in college. But, because I am allergic to latex, I had to play while wearing long pants and a long sleeve shirt. I spent most of my time trying not to fall out of my tube and drown in the diving well while wearing all of those clothes!



## ASTEE Crossword Answers





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### Questions?

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*“I appreciate that the instructors are practicing scientists. I really enjoyed the times the instructors or other students told stories about their personal experiences because it helped put things in perspective for the real world.”*

— M. Shannon, Miami-Dade Police Department



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