



# ASTEE

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February 2016

## Message from the President

The American Society of Trace Evidence Examiners (ASTEE) is approaching 400 members as we enter our seventh year! Our membership consists of forensic practitioners, professors, students, and researchers who share a common goal of advancing the various disciplines in the field of trace evidence analyses. Since the inception of ASTEE in 2009, the objectives of the organization have been and continue to be:

- To encourage the exchange and dissemination of ideas and information within the fields of trace evidence through improving contacts between persons and laboratories engaged in trace evidence analysis
- To stimulate research and the development of new and/or improved scientific techniques for forensic trace applications.
- To promote high standards of performance and professional ethics and to acknowledge persons working in the recognized forensic science field of trace evidence.



In 2016, I look forward to a number of ways in which ASTEE committees are striving to further these objectives. For example, ASTEE is slated to co-host not one but two regional meetings, hitting both coasts: the Mid-Atlantic Association of Forensic Scientists (MAAFS) in May and the California Association of Criminalists (CAC) in October. Look to ASTEE Travel Awards also being offered to help members get to these meetings and attend the high quality continuing education opportunities coordinated by the Education Committee. These meeting partnerships will be in addition to our traditional ASTEE receptions that are anticipated at the upcoming AAFS and Inter/Micro meetings.

The coming year will see the OSAC Materials (Trace) Subcommittee moving forward with their objectives (see page 14 for the most recent update), which is an exciting development for the trace evidence field. The SWGMAT website, currently funded by NIST, has been an invaluable tool for practitioners in many trace disciplines. Plans are underway that once NIST support has ended, ASTEE will assume the responsibility of housing the many excellent references that are currently available on the SWGMAT website. Specifically, ASTEE would host those SWGMAT resources which are not appropriate for the OSAC Registry or Catalog, such as the paint pigment infrared spectral library. In 2016, ASTEE

hopes to lay the groundwork to ensure that the rich source of documents and references that SWGMAT members produced is retained.

The scope of ASTEE grew mightily in 2015 with the addition of three newly formed committees: Research, Mentorship, and Events. These new ASTEE committees provide additional opportunities for ASTEE members to become more involved. Trace evidence may not be the largest discipline in the forensic sciences, but it is certainly among the most varied and challenging. I look forward to the continual growth of ASTEE in 2016 and look to the membership to be the driving force. Your contributions are welcome, and there are committees which could use your help!



Kristine Olsson  
ASTEE President

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## ***Message from the Treasurer***

### **Reminder: it's time to pay your membership dues!**

This year, as voted on by the membership, dues have increased to \$25 if paid by the due date of March 31st. After March 31st, a \$5 late fee must be added for a total of \$30.

See the dues notice form on page 24 of this newsletter. Or new this year, you can use the PayPal 'Pay Now' button found under the Membership tab of our website. You do not need a PayPal account to pay using the button – a credit or debit card is all that's required. And any contact information changes can be noted in the comments section of your payment. Questions about dues or for more instructions on how to pay, contact Chad ([chad.schennum@dfs.virginia.gov](mailto:chad.schennum@dfs.virginia.gov)).

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## ***2015 Election results***

The results for the 2015 Election are in. Thank you to everyone who participated, and congratulations to ASTEE's new board members. The results are as follows:

### ***President-Elect***

Amy Michaud 149 (71.3%)  
Patrick Buzzini 60 (28.7%)  
Write-in 0 (0.0%)  
Total 213  
Abstain 4 (1.9%)

### ***Director***

Michelle Palmer 115 (55.0%)  
Daniel Mabel 94 (45.0%)  
Write-in 0 (0.0%)  
Total 213  
Abstain 4 (1.9%)

### ***Secretary***

Emily Weber 208 (99.5%)  
Write-in 1 (0.5%)  
Total 213  
Abstain 4 (1.9%)  
WRITE-INS  
Cheryl Lozen 1 (0.5%)

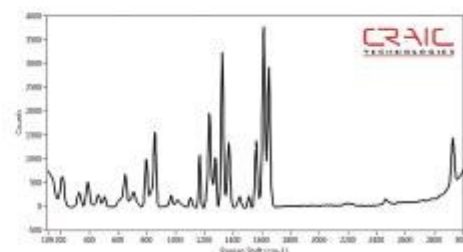
The \$5 dues increase and the changes to Admin Rules and Bylaws all passed, with 86.8%, 95.7%, and 90.7% of the vote, respectively.

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## Message from the Outgoing President

Dear Fellow ASTEE Members,

Winter is upon us and the aroma of pumpkin-spiced-everything lets us know that we are winding down another successful year for ASTEE. It has been a whirlwind summer with lots of activity on the professional development front. We've also added several new members, bringing our membership total over 400. It's fantastic that we continue to grow and develop as an organization, and I couldn't be prouder of the commitment and dedication that you all show.

Professional meetings and networking dominated the ASTEE slate the last few months. There was a strong representation from members at the Impression, Pattern and Trace Evidence Symposium in San Antonio this past August. ASTEE members taught workshops, presented posters, and gave oral presentations on a wide variety of subject matters. For those of you who couldn't attend in person, I hope you were able to tune in online; and be on the lookout for the archived presentations to be posted through RTI in the near future. ASTEE also hosted its second joint meeting this fall, this time with the Southern Association of Forensic Scientists. There were three intense days of workshops and factory tours, as well as a group plenary session and section breakouts. Again, ASTEE members were active in presenting workshop materials and filling the TE breakout session with compelling talks. At the Gala Ball, your own team ASTEE beat SAFS in Forensic Family Feud, bringing home the hardware (picture of trophy winners on page 11). Great job team!

The ASTEE Events Committee was busy at both of these events, hosting a reception at the Alamo Beer Hall in San Antonio and the Publik Draft House in Atlanta. Allyson and her volunteers did a wonderful job planning and executing these events, and of course they continued our tradition of supporting local breweries. It was great to see so many of our members from all over come together to build new relationships and share ideas. It is opportunities like this which really generate strong professional development in our organization. I am grateful that these events gave me the chance to meet with so many of you, and I hope those of you that couldn't make it this year find a way to attend one of our upcoming events.

All of your committees have been hard at work developing materials, creating value-added initiatives, and running various necessary functions in ASTEE which are contributing to the achievement of our mission statement. Check out the updates from the committee chairs to see what they've been up to and what they have planned for the future. If you are currently serving on a committee, thank you for your continued efforts to improve ASTEE. If you're not on a committee, I strongly encourage you to reach out to a committee chair to offer up your time to help out. Your involvement is the only means that we have to continue to grow as an organization.

The close of my term is bittersweet; I am incredibly grateful for the opportunity that I have had to interact more directly with so many of you. Your dedication and passion for trace evidence is inspiring. I'm incredibly lucky for the time I've had as your President, it has been an honor and a privilege. I can only hope that my tenure has left some trace on the future of the organization.

So thank you all for a wonderful 2015, I will miss this job sorely. And here is to a better 2016 for our incoming officers. I'll leave you with a final presidential portrait from your previous Communications Chair, Matney Wyatt.

Gratefully,



Jeffrey Dake  
ASTEE Outgoing President







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## **ASTEE at a Glance– Committee Updates**

### ***JASTEE Update***

The JASTEE crew has recently put together the much anticipated *JASTEE* Guide for Authors, meant to answer all of your manuscript formatting questions. Please check the ASTEE website for that information, and contact Robyn if you have any additional questions ([robyn.weimer@dfs.virginia.gov](mailto:robyn.weimer@dfs.virginia.gov)). We look forward to receiving your paper for publication!

### ***Research Committee Update***

The new ASTEE research committee is beginning to take shape. Dana Greely has taken over the chair position for Andrew Bowen with Andrew staying on the committee along with Barb Fallon and Kate Shilling. Initially, the committee's main goal is to join students and researchers interested in trace evidence with trace evidence practitioners. It is hoped that these partnerships will produce research which is more applicable and relevant to actual case work. We are in the process of developing a list of trace evidence research topics that need to be completed. We hope to post that list soon. We will also be sending out a call for practitioners who might be interested in guiding or mentoring the researchers in one or more of the various trace disciplines. If you have a particular area of expertise and would like to help further the research in that area, we would love to hear from you ([dana.greely@hamilton-co.org](mailto:dana.greely@hamilton-co.org)). As always, we welcome any other suggestions on how this committee can grow and expand its research responsibilities. We are very eager to get this new committee off the ground.

### ***Education Committee Update***

We are happy to announce Jeff Dake, previous ASTEE president, has recently accepted the chair position. To best foster educational opportunities for ASTEE members, the Education Committee is focusing on identifying training needs, updating training documents, and solidifying how ASTEE partners with other organizations for joint meetings. Additionally over the next year, the Education Committee will be working to ensure ASTEE members have meaningful training available at both joint meetings. Nevertheless, there are other training courses offered across the country; see page 19 for the most recent accumulation.

### ***Communications Committee update***

There are big shoes to fill as Matney Wyatt passes the reigns of the Communications Committee chair position to Daniel Mabel. This committee's efforts for 2016 will focus on investigating a potential overhaul of the ASTEE website. We are aware of the patience required of the membership in dealing with issues creating new user accounts, resetting passwords, etc. Your feedback has been heard, and we hope to build a new online home for ASTEE that will better meet our needs going forward. If any of you intrepid scientists dabble in web design, be sure to reach out to Daniel ([asteetrace@gmail.com](mailto:asteetrace@gmail.com))!

One of the ongoing projects of the Communications Committee has been Trace 101, an extensive compilation of summaries of trace evidence sub-disciplines. It is available on [www.asteetrace.org](http://www.asteetrace.org) for use by educators, law enforcement, and the legal community. Our goal is to make Trace 101 as comprehensive as possible, so please contact Daniel if you are interested in contributing. Specifically, we are still in need of summaries for toolmarks, fabric impressions, lacrymators/pepper sprays, and cosmetics.

## 2015 Award Recipients

The Awards committee was privileged to provide awards to numerous highly qualified individuals with a passion for Trace Evidence and its advancement. The nominations and applicants for each award frequently require extensive deliberation to determine the individual that is best qualified for the award.

*Congratulations to the following award recipients:*

The 2015 Edmond Locard Award for Excellence in Trace Evidence was awarded to Dr. John Reffner. Dr. Reffner played a critical role in the development of the FTIR microspectrometer. He holds a number of patents on instruments that are utilized by the Trace Evidence community on a daily basis. He is active in educating future and current Trace Evidence examiners. His impact in Trace Evidence is far reaching, and his involvement has been instrumental in keeping Trace Evidence viable in the forensic science community.

The 2015 Travel Award for the joint ASTEE/SAFS Meeting was awarded to Jeanne Redeman.

The 2015 Scholarship Award and the 2015 Research Grant were both awarded to Barbara Fallon.

The 2016 Scholarship Award was awarded to Elizabeth Markello.

The 2015 Professional Development Award was given to Lyndsay Cone. She was very appreciative of the award and the knowledge she gained by attending the class.



*I just wanted to write a little thank you to ASTEE for affording me the opportunity to take a class at MRI. Having Skip Palenik teach you microscopy is kind like having Babe Ruth teach you how to hit. It was a once in a lifetime opportunity that I will always remember. Thank you.*

*Lyndsay Cone  
2015 Professional Development Award winner*



# *Call for Papers* **Inter/Micro 2016**

**Chicago, June 6–10**

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## **2016 Awards**

### ***Travel Awards Available to Get to the 2016 Joint ASTEE Meetings***

ASTEE is pleased to provide two \$500 travel awards to attend the joint MAAFS/ASTEE meeting to be held in Richmond, Virginia, May 17-20, 2016. In order to be eligible for the award, the applicant must be a member in good standing with ASTEE, traveling greater than 50 miles, and giving an oral or poster presentation. To be considered for this award, members should email an essay of a maximum of 1000 words detailing why they should be given this award, membership number, and details regarding the oral or poster presentation they will be giving at the meeting. The deadline to be considered for this award is April 1, 2016, and should be emailed to the Awards Committee at [michelle.palmer@dfs.virginia.gov](mailto:michelle.palmer@dfs.virginia.gov).

Be on the lookout for another exciting opportunity as ASTEE will be offering two more \$500 travel awards later in the year to the joint CAC/ASTEE meeting.

### ***Now Accepting Locard Award Nominations***

The 2016 Edmond Locard Award for Excellence in Trace Evidence June 1, 2016, deadline will arrive quickly. Please consider nominating someone who has displayed excellence in Trace Evidence. Nominees do not have to be members. See page 23 for the nomination form and guidelines.

### ***Research and Professional Development Award Applications***

There is also another quickly approaching deadline...August 1, for the Research Award and the Professional Development award. Which class would you choose to take at the McCrone Research Institute? Make sure you apply to be in the running to receive this wonderful education opportunity! Start thinking of how best to apply \$500 of ASTEE funding to your research ideas. Go to the website to find out more about these two awards and learn how you can apply.

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## **2015 AAFS Meeting ASTEE Reception**



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## News You Can Use *(new!)*

We are happy to introduce a new addition to the ASTEE newsletters—News You Can Use! This section is meant to include information that may be useful for casework, but is not research. For example, do you have information from industry that may impact what we see? Or have you seen something unusual in casework? Do you have a special trick or technique? All of these and more can be included in this new area. If any members have contributions for this section for future issues, please forward them to [robyn.weimer@dfs.virginia.gov](mailto:robyn.weimer@dfs.virginia.gov).

Did you know there are two email listserv groups which may be of interest to you? Both groups are setup to facilitate discussion and exchange of information. Emails are sent to all members and posted as a discussion thread within the group's page. Other members can then reply, including adding attachments. Do not fear a flood of emails, however, as settings can be altered to create daily summaries rather than individual emails. Please note, discussions should not include confidential, classified, or secret information, nor should specific cases be discussed, except in a general sense. Here is more information on what these groups are and how to join:

- The **Trace Evidence** Yahoo Users Group was founded in 2007 and currently has 201 members. The Trace Evidence group is a place to discuss instrumentation, share knowledge and ask specific case work questions with colleagues in the Trace Evidence field. Membership is restricted to Trace Evidence examiners and requires approval. To join the Trace Evidence group, send an email to [traceevidence-subscribe@yahoogroups.com](mailto:traceevidence-subscribe@yahoogroups.com) and include what you do and where you work. This group is not visible in Yahoo searches.
- The **Forensic\_SEM** user group was founded in 2001 and currently has 302 members. It is aimed at those involved with Scanning Electron Microscopy (SEM), and related disciplines, in the forensic laboratory. It includes discussions, questions, surveys, and information regarding applications, methods, and instrumentation used in the SEM analysis of materials of forensic significance. It is intended to provide a problem solving utility for those trying to improve the quality of their services, as well as a learning resource for those newly involved with this discipline. This group is available only to those individuals specifically involved with SEM in the forensic environment, and subscription is available by invitation only. Hopeful members should send their name and email address to the moderator ([mmartinez@bexar.org](mailto:mmartinez@bexar.org)) who may then extend an invitation to join. Although membership includes government employees in crime labs, others like those involved in forensic-"like" activities and employment may also be included.

## 2015 ASTEE/SAFS Meeting





## In Memoriam

I am saddened to report the loss of a friend and colleague, Glenn Schubert. He worked for over 30 years for Illinois State Police examining trace evidence: hair, fibers, fracture matches, fabric impressions and his favorite topic, airbags. He passed away on January 3 after collapsing while running in a race. Glenn was a man of character (as well as quite the character).

Professionally, he was one of the best trace evidence examiners in the country and an ambassador for our field. He was a charter member of TWGFIBE, which became TWGMAT and ultimately SWGMAT, one of the oldest and well-established of the Scientific Working Groups, contributing to many of the guidelines that are used by hair and fiber examiners across the world today. Glenn was a devoted member of the Midwestern Association of Forensic Scientists (MAFS), an organization that is dear to the hearts of many of us, including Glenn. His MAFS accomplishments include presenting during 20 of his 29 years of membership, teaching five workshops, chairing several committees, receiving the *Outstanding Scientist Award*, and was a former president.



Glenn was also a charter member of ASTEE, an organization that was established to promote trace evidence and assist practitioners with the exchange of information and research for the field. These are all things that Glenn did throughout his career. He consistently presented research on interesting cases and techniques and taught workshops on airbag examinations. Always willing to help anyone, whether he personally knew them or not and answer any question about a technique or evidence. If that meant sending someone a sample of known material he possessed or taking the time to look at a photomicrograph of some specimen, he would always happily help in any way he could.

Personally, Glenn was warm, funny and would do just about anything for friends and family. He was a proud father and just became a grandfather a few days ago. He enjoyed drumming in bands on the weekends, and chased storms whenever they were around. He touched a lot of lives for someone our age, which is probably the best we can all do in whatever life we have. We lost a leader and friend. I hope those who knew him will use his example in how to live a fulfilling and impactful life.

Christopher Bommarito  
ASTEE Past-President

# Buried in Casework?



At Gateway Analytical, we understand that sometimes keeping up with the never ending backlog of casework analysis can leave you feeling a bit overwhelmed. Luckily, our forensic scientists have over 15 years of experience in traditional and specialized evidence analysis. No matter what type of forensic support you need from trace evidence analysis to criminal case review, Gateway Analytical can provide fast, legally defensible results to help ease your casework demands.

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## OSAC, What's New?



As expected, there have been some developments within OSAC Subcommittees. At the first OSAC meeting in January 2015, each subcommittee began making task groups. Task groups allow the subcommittees to be working on several assignments simultaneously with small, focused groups. It is in these task groups that non-OSAC members, also called affiliates, can be included to assist in reaching goals. Keep reading for some updates, including progress from some task groups.

You may have seen there are now monthly “OSAC Newsletters” which include information about public comment periods, upcoming meetings, open vacancies, and accomplishments. For example, a new subcommittee chair is sought for Geological Materials. There is also a recent vacancy on the Chemistry SAC. Visit [www.nist.gov/forensics](http://www.nist.gov/forensics) to sign up for NIST news, the OSAC newsletter, and to apply to become an affiliate.

Over 500 OSAC members braved the snow and gathered in Virginia for the recent January 2016 meeting. Subcommittee updates are planned for the AAFS meeting in Las Vegas in February. In the meantime, here are some notable accomplishments from that meeting:



At the January 2015 meeting, seven task groups were formed, to include one group per subdiscipline within Materials (fibers, hair, paint, tape, and glass) plus an interpretation group and an outreach group. Since then, each subdiscipline group has been working on revising documents which are in various stages ranging from writing new training documents or updating/revising SWGMAT documents to resubmitting ASTM documents for votes. Excitingly, two glass documents (one on  $\mu$ XRF usage and the other on ICP-MS usage), having passed most steps in the process, and may to be added to the OSAC Registry very soon! Two paint

documents (ASTM E1610 – standard paint guide & ASTM E2937 - IR of paint) are currently out for public comment period as well. The Materials (trace) subcommittee is also in the process of expanding! With hopes to expand, new members may be added to this group in the near future. So visit the site above to apply and keep an eye on the OSAC newsletter for the vacancy announcements.

The interpretation task group has made significant progress in drafting a document addressing how to interpret and describe the significance of the overall results of a comparative examination. The outreach task group is intended to identify the needs and perception of the TE community and determine opportunities to promote TE. This task group was responsible for the recent surveys distributed to lab managers and to trace evidence examiners. Much appreciation and thanks go out to the over 300 examiners who responded! Survey results will help this task group strategize how to best target education initiatives, promotion of trace evidence, research needs, and areas for improvement. They plan to compile the survey results into a *JASTEE* article later this year. Another survey is currently in revision for distribution to lawyers. The Outreach task group has concurrently been working on a field guide for Trace Evidence targeting crime scene personnel. As part of their initiatives, they also ask examiners to start gathering any adjudicated cases where trace evidence was critical to the case. They intend to compile these cases to help show the value of trace evidence and provide as a reference. If you have such a case, please forward the case information to Sandy Parent, [sandy.parent@dps.texas.gov](mailto:sandy.parent@dps.texas.gov).

An eighth task group was created over the summer to determine research gaps within the Trace Evidence field. The group developed a list of research needs and will continue to do so. Of those ideas, two were put forth to the subcommittee at the latest meeting and approved for posting to the OSAC website. In time, more are expected to be added.



## OSAC Summary continued...

### Fire Debris and Explosives

This committee aims to build on the strong foundation previously established through the efforts of SWG/TWGFEX. In January 2015, five major task groups were formed by this subcommittee: (1) to review/revise current fire debris documents; (2) to develop general guides for fire debris and explosives analysis; (3) to develop terminology documents for fire debris and explosives disciplines; (4) to develop a QA/QC guide for fire debris analysis; and (5) to evaluate needs and areas for development of research projects to further the fire debris and explosives disciplines. International participation has occurred through the inclusion of affiliates from Canada, the Netherlands, and England. Excitingly, having passed most steps in the process, one document on the extraction, derivatization, and GC-MS analysis of vegetable oils and fats may to be added to the OSAC Registry very soon! Currently, there are 18 documents in progress, including gathering resources for Daubert hearing preparations.

### Gunshot Residue

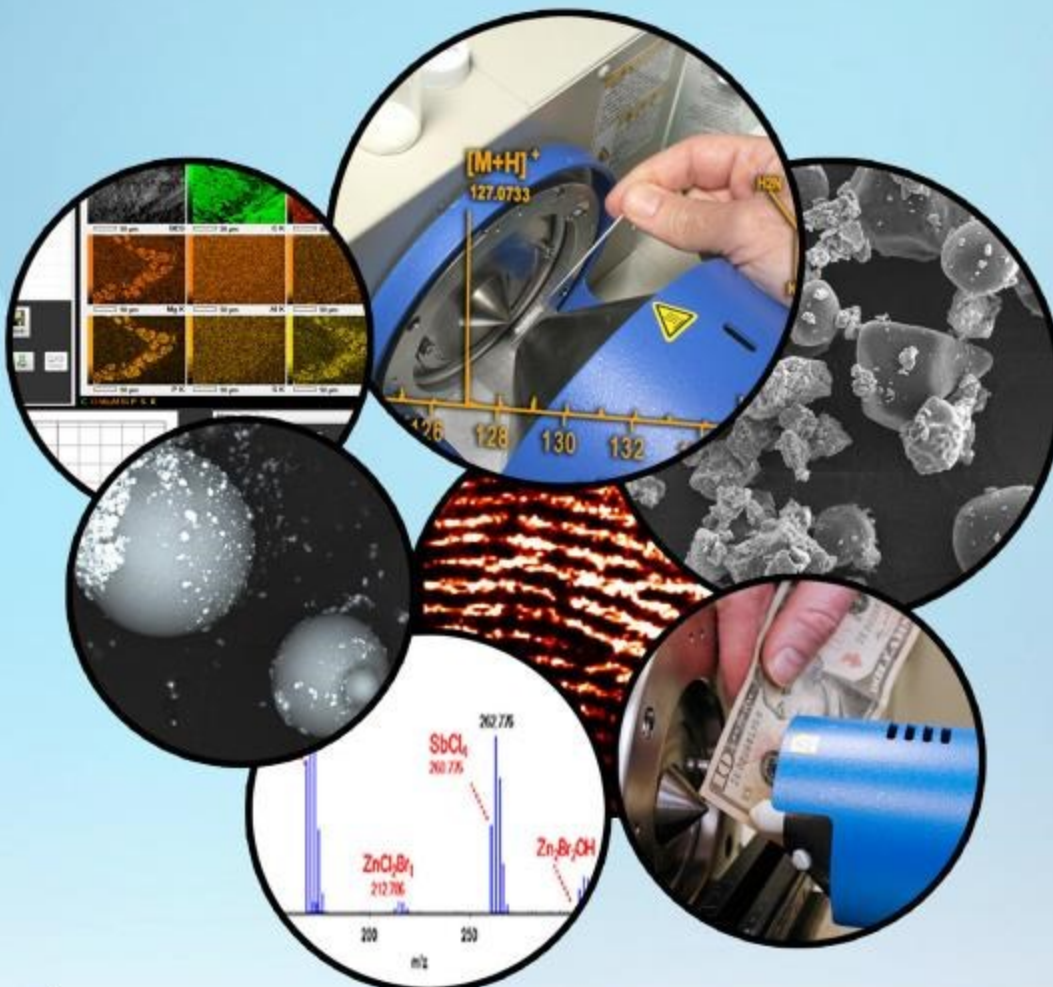
One of the main topics discussed in this 2<sup>nd</sup> annual OSAC meeting was the, soon to be released, revised ASTM E1588 GSR by SEM/EDS standard which has been changed from an ASTM "Standard Guide" to a "Standard Practice". Once this document has been through the ASTM vetting process, it will then be sent through the OSAC approval process. The 2016 meeting was the first time international affiliates attended as guests. They provided valuable insight, as anticipated, and extended an invitation of joint collaboration with the ENFSI Firearms /GSR Committee. International participation is expected to grow with time but to date the GSR Subcommittee has welcomed affiliates from law enforcement agencies in Australia, Israel, Canada, Finland, and Germany. Progress has been made on the proposed large scale GSR (organic and inorganic) population study headed by Dr. Suzanne Bell with West Virginia University. Work is still ongoing on documents which cover topics such as training, methodology, testimony, proficiency/competency, reporting and validation. Some of these documents are near completion and should be ready within the year for the next phase towards standard development. Two new task groups were created, one to deal with contamination concerns and the second to address the relevance/importance/obligations to our customers. The Report writing task group sent their first survey to the Forensic SEM yahoo group, with plans for many more to be sent this year. All laboratories performing GSR analysis are strongly encouraged to participate in these surveys as the best standards arise from the input of all stakeholders in the field.

### Geological Materials

This subcommittee is the smallest of the Trace related groups with a whopping 11 members. With spaces available, the Geological Materials subcommittee is interested in adding members in the coming year. If you currently perform forensic soil analysis or conduct research in this area, please consider applying to join and encouraging others to do the same.

Many of last year's initiatives (such as Terminology and Resources/References task group efforts) are large undertakings that will continue into 2016, some in coordination with other Subcommittees. As with other subcommittees, a research initiatives task group has been formed since the 2015 meeting. A number of research needs have since been identified with hopes that they will soon be posted on the OSAC website. In 2016, this subcommittee will focus on two significant areas. The first is conducting one or more workshops to test the currently drafted guide on the field collection of soil samples. ASTEE members will be notified once such a workshop has been scheduled. The second area of focus is the drafting of a new guide for the forensic examination of soil evidence. This will hopefully be the backbone upon which several soil analysis-related standards and guides are built.

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## McCRONE 2016 FORENSIC MICROSCOPY COURSES

### Microscopy of Explosives (1722)\*

March 28–April 1, 2016

This is an advanced course in the microscopy of bulk explosives, pyrotechnics and explosive residues. Organic, inorganic, military, commercial and improvised explosives are covered. Using chemical microscopy to identify explosives was one of Dr. Walter McCrone's first research projects, and McCrone Research Institute continues to teach the methods he developed.



### Forensic Dust Analysis (1750)\*

April 11–15, 2016

This course is an introduction to the analysis of dust traces for trace evidence analysts and is based on instructor Skip Palenik's experience of more than 50 years in studying dust in a forensic context. Beginning with the history of dust analysis and the work of Locard, Popp, Schneider, Heinrich, Frei-Sulzer and others, the course will explore the techniques for collecting, separating, analyzing and interpreting dust evidence.

### Introduction to Basic Human Body Tissues (1557)

April 26–28, 2016

Taught by Lynne D. Herold, Ph.D., this course will introduce the seven basic human body tissues: nerve, muscle, bone, epithelium, connective tissue, blood and cartilage. The instructional methods will include lectures, group viewing of prepared and unprepared body tissues, and individual hands-on laboratory exercises for simple preparations and observations of body tissue.

### Forensic Fiber Analysis: Advanced Microscopy and Microchemistry (1507)\*

June 20–24, 2016

This is an advanced course in microscopy and microchemical methods used for the characterization and identification of natural, regenerated and synthetic fibers. Methods for the collection of fibers are considered and practiced.

### Microcrystal Tests for Illicit Drugs and Diverted Pharmaceuticals (1725)\*

August 15–19, 2016

This course teaches basic and advanced techniques for the identification of illicit drugs and diverted pharmaceuticals. The course will emphasize the methods used in polarized light microscopy and optical crystallography, allowing the microscopist to recognize and identify specific microcrystals formed in the presence of targeted drugs.

### Animal Hair Identification (1208)

August 30–September 1, 2016

This course will introduce mammalian taxonomy, the importance and establishment of reference collections and hair atlases. Lectures explain the morphological and anatomical features of hairs that may be used for their identification. Demonstrations show how hairs can be sequentially prepared so that all of these characteristics can best be observed, if necessary, on a single hair.

\*The prerequisite for this course is McCrone's Applied Polarized Light Microscopy (1201)/Forensic Microscopy (1204) course or equivalent.

Visit [www.mcricri.org](http://www.mcricri.org) for a complete course calendar,  
full course descriptions and online registration.

## Upcoming Training Opportunities

### Spectroscopy

Course: Interpretation of Infrared and Raman Spectra  
Location: Bowdoin College in Brunswick, Maine  
Info: <http://www.ircourses.org/sched1.html>

Course: Interpretation of Infrared Spectra  
Location: California Criministics Institute  
Info: <http://oag.ca.gov/ci-subject-areas/c-chemistry-program>

Course: FTIR Sampling Techniques, Spectral Interpretation Applications, Raman, Instrument Operation  
Location: Madison, WI  
Info: <http://www.thermoscientific.com/en/services/training-services.html> <http://unitylabservices.gosignmeup.com/catalog/index.asp?misc=601>

Course: Practical Infrared Microspectroscopy – FTIR  
Location: McCrone Research Institute in Chicago, IL  
Info: <http://www.mcri.org/home/section/10/courses>

Course(s): Infrared Microscopy, IR Spectral Interpretation, Raman Microspectroscopy, Infrared Polymer Analysis  
Location: Hooke College in Westmont, IL  
Info: <http://www.hookecollege.com/courses/>

Course: Raman Microspectroscopy  
Location: McCrone Research Institute in Chicago, IL  
Info: <http://www.mcri.org/home/section/10/courses>

### Chromatography

Course: Practical Gas Chromatography (R1915A)  
Location: Agilent Technologies, various locations  
Info: <http://www.chem.agilent.com/en-US/Training-Events/Training-Courses/Pages/default.aspx>

Course: Agilent 6890 GC & ChemStation Operation  
Location: Agilent Technologies, various locations  
Info: <http://www.chem.agilent.com/en-US/Training-Events/Training-Courses/Pages/default.aspx>

Course: Gas Chromatography/Mass Spectrometry  
Location: 4 day on site (company out of Ohio)  
Info: <http://selectosep.com/training.html> <http://selectosep.com/gcms.html>

Course: Various Courses  
Location: Various Locations  
Info: <http://www.thermoscientific.com/en/services/training-services.html> <http://unitylabservices.gosignmeup.com/catalog/index.asp?misc=601>

### Mass Spectrometry

Course: Interpretation of Mass Spectra, Intermediate Mass Spectral Interpretation I and II  
Location: Agilent Technologies, various locations  
Info: <http://www.chem.agilent.com/en-US/Training-Events/Training-Courses/Pages/default.aspx>

Course: Advanced Mass Spectra  
Location: California Criministics Institute/San Diego Area  
Info: <http://oag.ca.gov/ci-subject-areas/c-chemistry-program>

Course: Mass Spectra: Theory and Interpretation  
Location: California Criministics Institute/Sacramento or Los Angeles  
Info: <http://oag.ca.gov/ci-subject-areas/c-chemistry-program>

Course: Forensic Mass Spectrometry  
Location: WVU Continuing Education-Online  
Info: <http://continuinged.wvu.edu/courses/course.php?cid=24>

Course: Mass Spectrometry for Trace Evidence  
Location: Free Online Course through FIU  
Info: <http://ifri.fiu.edu/academic-programs/nij-sponsored-workshops/>

### Electron Microscopy

Course: Scanning Electron Microscopy and X-ray Microanalysis  
Location: Lehigh Microscopy School in Bethlehem, PA  
Info: <https://www.lehigh.edu/microscopy/school/index.html>

Course: Introduction to SEM and EDS for the New SEM Operator  
Location: Lehigh Microscopy School in Bethlehem, PA  
Info: <https://www.lehigh.edu/microscopy/school/index.html>

Course: Specialized Courses  
Location: Lehigh Microscopy School in Bethlehem, PA  
Info: <https://www.lehigh.edu/microscopy/school/index.html>

Courses: Scanning Electron Microscopy, Transmission Electron Microscopy, Advanced Imaging Techniques for Scanning Electron Microscopy, Advanced X-ray Microanalysis by EDS  
Location: Hooke College in Westmont, IL  
Info: <http://www.hookecollege.com/courses/>

Course: Scanning Electron Microscopy (SEM) and X-ray Microanalysis  
Location: McCrone Research Institute in Chicago, IL  
Info: <http://www.mcri.org/home/section/10/courses>

Course: Elemental Analysis of Forensic Evidence with Focus on Interpretation of the Evidence  
Location: Free Online Course through FIU  
Info: <http://ifri.fiu.edu/academic-programs/nij-sponsored-workshops/>

Course: SEM/TEM Training (instrument model based)  
Location: JEOL USA in Peabody, MA and/or Pleasanton, CA  
Info: <http://www.jeolusa.com/SERVICESUPPORT/JEOLInstitute/SEMTEMTraining/tabid/310/Default.aspx>



**Microscopy**

Course: Advanced Microscopy  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Basic Practical Microscopy  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program?page=1>

Course: Modern Polarized Light Microscopy  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Microscopic Particle Handling: Particle Isolation, Manipulation, and Mounting  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Sample Preparation: Forensics and Trace Evidence  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Applied Polarized Light Microscopy/Forensic Microscopy  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

**Fibers**

Course: Basic Fiber Comparison Workshop  
 Location: Hamilton County Coroner's Office  
 Info: <http://www.mafs.net/mafs-2016-basic-fiber-workshop>

Course: Forensic Fiber Identification  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Fiber Identification  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Textile Fundamentals  
 Location: NC State University in Raleigh, NC  
 Info: <http://www.tx.ncsu.edu/departments/texed/courses.cfm>

Course: How to Identify Fibers and Fabrics  
 Location: NC State University in Raleigh, NC  
 Info: <http://www.tx.ncsu.edu/departments/texed/courses.cfm>

Course: Fibers and Textiles for Forensic Scientists  
 Location: WVU Continuing Education-Online  
 Info: <http://continuinged.wvu.edu/courses/course.php?cid=23>

Course: Fiber Identification and Comparison  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Forensic Fiber Analysis: Advanced Microscopy and Microchemistry

Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

**Paint/Polymers**

Course: Forensic Paint Examinations and Comparisons  
 Location: Minnesota BCA Lab  
 Info: <http://www.mafs.net/2016-mafs-paint-workshop>

Course: Basic Composition of Coatings  
 Location: The Coatings Institute at Missouri S&T campus  
 Info: <http://coatings.mst.edu/short/>

Course: Basic X-ray Diffraction  
 Location: Pan Analytical in Westborough, MA  
 Info: <http://www.panalytical.com/Events-overview/Course-calendar.htm>

Course: Paint Examination and Comparison  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Pigment Identification Workshop  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Infrared Polymer Analysis  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Forensic Paint Microscopy  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

Course: Forensic Examination and Comparison of Paint, Tapes, and Adhesives with a Focus on Interpretation of the Evidence

Location: Free Online Course through FIU  
 Info: <http://ifri.fiu.edu/academic-programs/nij-sponsored-workshops/>

Course: Paint Examination and Comparison  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

**Glass**

Course: Glass Examination and Comparison  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Glass: Basic Principles of Trace Evidence Series  
 Location: WVU Continuing Education-Online  
 Info: <http://continuinged.wvu.edu/courses/course.php?cid=288>



Course: Forensic Microscopy of Glass  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

Course: Examination and Comparison of Glass Evidence  
 Location: Free Online Course through FIU  
 Info: <http://ifri.fiu.edu/academic-programs/nij-sponsored-workshops/>

### **Explosives**

Course: Explosives, Improvised Explosive Devices, Electronic Components & Circuitry  
 Location: California Criminalistics Institute / Rancho Cordova  
 Info: <http://oag.ca.gov/ccj-subject-areas/c-chemistry-program>

Course: Analysis of Explosives  
 Location: California Criminalistics Institute / Sacramento or Los Angeles  
 Info: <http://oag.ca.gov/ccj-subject-areas/c-chemistry-program>

Course: Microscopy of Explosives  
 Location: California Criminalistics Institute/Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: White-Powder Unknowns Part 1  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Microscopy of Explosives  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

### **Fire Debris**

Course: Advanced Arson Analysis  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/c-chemistry-program>

Course: Intermediate Analysis of Ignitable Liquids and Fire Debris  
 Location: California Criminalistics Institute / Sacramento or Los Angeles  
 Info: <http://oag.ca.gov/ccj-subject-areas/c-chemistry-program>

Course: Intro to Ignitable Liquids and Fire Debris  
 Location: Hertzberg-Davis Forensic Science Center, California State University Los Angeles  
 Info: <http://oag.ca.gov/ccj-subject-areas/c-chemistry-program>

### **Hairs**

Course: Identification of Animal Hairs  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Hair Identification and Comparison  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Animal Hair Identification  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

Course: Hair and Fiber Microscopy  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>

Course: Hair Comparison  
 Location: Hooke College in Westmont, IL  
 Info: <https://www.mccrone.com/hair-comparison-course>

### **Miscellaneous**

Course: Fundamentals of Color and Appearance  
 Location: X-Rite, Various locations  
 Info: [http://www.xrite.com/top\\_services.aspx?segmentid=29&eventid=266](http://www.xrite.com/top_services.aspx?segmentid=29&eventid=266)

Course: Forensic Statistics  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

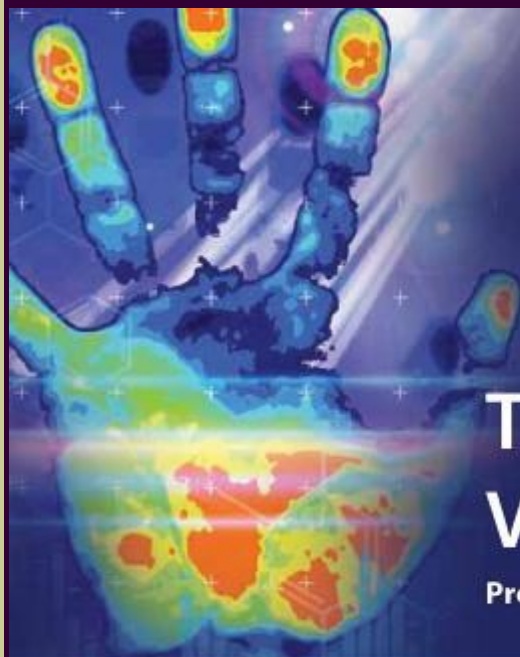
Course: Identification of Building Materials  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Identification of Soils & Minerals  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Headlamp Examination  
 Location: California Criminalistics Institute / Sacramento  
 Info: <http://oag.ca.gov/ccj-subject-areas/m-microscopy-and-trace-program>

Course: Gunshot Residue Identification  
 Location: Hooke College in Westmont, IL  
 Info: <http://www.hookecollege.com/courses/>

Course: Comparative Microscopy of Soil  
 Location: McCrone Research Institute in Chicago, IL  
 Info: <http://www.mcri.org/home/section/10/courses>



# The Trace Evidence Virtual Training Series

Presented by the Forensic Technology Center of Excellence

To provide the trace evidence community with greater access to information and support, the Forensic Technology Center of Excellence and the National Institute of Justice have developed a series of virtual training events geared toward forensic investigators and examiners working in this critical field.

From fundamentals and best practices to detailed case studies, this broad-based series provides participants with an opportunity to explore an array of topics:

- New tools and techniques
- Evidence collection and preservation
- Novel areas of trace examinations
- Interpretation and reporting
- Time and labor efficiency

**If you perform routine evaluation and analysis of trace evidence material or serve as a technical or quality manager, this virtual series will be a valuable resource.**

All events are free of charge, accessible online, and range from 60–90 minutes. Registration is per event, so you can selectively participate in those of most interest to you.

Subscribe today to the *FTCOE Happenings* newsletter to receive event postings as they are announced.



## Expert Presenters Welcome

We are always looking for subject matter experts to present information that will increase the value and knowledge of trace evidence materials for forensic investigators.

If you have an event idea or topic that you would like to present, please contact Erica Fornaro.

### More Information

Erica Fornaro  
[efornaro@rti.org](mailto:efornaro@rti.org)  
919.541.6012  
[www.forensiccocoe.org](http://www.forensiccocoe.org)

Notice of federal funding and disclaimer



## The Edmond Locard Award for Excellence in Trace Evidence

Criteria: This award is to be presented to an individual who has demonstrated excellence in the field of Trace Evidence. This award will be determined by nomination. Nominee must have a minimum of ten years in Trace Evidence and will have made a major contribution to the field of Trace Evidence. This could include teaching or training, presented or published research, or innovations in techniques, methods or instrumentation in the Trace Evidence field. Only members of ASTEE may make nominations, but the nominee does not have to be a member of ASTEE. Please include contact information for the person being nominated.

Prior nominations may be reactivated by sending an e-mail to the nominating committee requesting that the nomination for that individual be refreshed.

Please attach a summary of the nominee's background and the reason(s) for the nomination.

Submitted by:

Address:

Email Address:

Work Phone: (     )

Nominee's contact information to include address, email and phone number.

All nominations must be postmarked or e-mailed by the Awards Committee for review no later than **June 1, 2016**. The recommendations of the Awards Committee will then be forwarded to the ASTEE Board of Directors, who will determine the final choice for the award recipient.

Please mail or e-mail nomination to:

ASTEE Awards Committee  
ATTN: Michelle Palmer  
Virginia Department of Forensic Science  
6600 Northside High School Road  
Roanoke, VA 24019  
[Michelle.Palmer@dfs.virginia.gov](mailto:Michelle.Palmer@dfs.virginia.gov)

If you have any questions, please contact Michelle Palmer at (540) 283-5937.





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# ASTEE Dues Form

Dear ASTEE member,

Please remit the sum of \$25.00 to ASTEE in payment of your membership dues for the 2016 calendar year by March 31, 2016. Please add a \$5.00 late fee for payment received after March 31, 2016. U.S. members remit checks and non-U.S. members remit International Money Orders payable to ASTEE.

Please send your payment to :

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**Virginia Department of Forensic Science**  
**700 North 5th Street**  
**Richmond, Virginia 23219**

If you prefer to use our online option, you can pay through the **asteetrace@gmail.com** account on PayPal. If you choose this option, please email a copy of this form to chad.schennum@dfs.virginia.gov or fax the form to 804-786-6305 once your payment is submitted.

Please complete the following information and mail with your payment:

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- ☐ Please check if any of the above information has changed
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