



**Call for Proposals
2025 ASTE Annual Conference
Long Beach, CA
January 15-18, 2025**

The ASTE Annual Meeting takes place in January of each year, and provides an opportunity for our membership to engage with current research, policy, and practice and to promote improvements in science teacher education. We are excited to announce the Call for Proposals for the **2025 ASTE Annual Conference: Fearless Science Education**.

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Conference Theme

Fearless Science Education

In our current political environment, where science is often subject to skepticism and politicization, it's crucial for educators to embody fearlessness in their approach to the topic. Fearlessness in teaching science entails a steadfast commitment to evidence-based knowledge and transparent inquiry. The prevalence of misinformation, pseudoscience, and skepticism about scientific findings means educators must empower students to think critically, and evaluate evidence in light of scientific knowledge. Politics pressures our teachers to ignore (or worse, deny) their students' identities, remove books from their classrooms, and treat "DEI" like a dirty word. It's through fearless teaching that we can set an example and inspire a new generation of scientifically literate individuals who are equipped to tackle the challenges of the future with clarity, curiosity, and confidence. This conference will focus on our work together as science teacher educators to support our teachers and give them the tools to face these challenges without fear and equip students with the tools they need to navigate an increasingly complex world.

ASTE Conference Planning Committee

Conference Planning Committee Chair, *Lisa Borgerding*

Local Conference Chairs: *Corinne Lardy and Lisa Martin-Hansen*

Program Coordinator, *Kelly Feille*

Members: *Teresa Leavens, Liz McMillan*

Graduate Student Member: *Laura Chalfant*

Ex Officio Members:

ASTE President, *Bill McComas*

Director of Electronic Services, *Maria Wallace*

Equity Committee Representative, *Drew Gossen*

Executive Director, *Kate Popejoy*

Local Planning Team:

Heather Clark, California State University Dominguez Hills

Sara Dozier, California State University Long Beach

Brian Foley, California State University Northridge

Susan Gomez Zwiép, BSCS Science Learning

Jarod Kawasaki, California State University Dominguez Hills
Virginia (Gini) Oberholzer Vandergon, California State University Northridge
Amy Ricketts, California State University Long Beach
Donna Ross, San Diego State University
Heather Wygant, Santa Cruz County Office of Education

Conference Threads

The ASTE conference is organized by 'Threads' that bring together sessions and topics related to a variety of member interests. Our current Conference Threads and Chairs are listed below.

College & University Science Education: Proposals for this strand will address issues such as conceptual change, content knowledge, pedagogical content knowledge, etc. that are pertinent to higher education science faculty who work with science teachers or science teacher educators, community, and after-school programs.

Chairs: *Amanda Townley and Lu Wang*

Curriculum, Pedagogy, and Assessment: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about curriculum, pedagogy and assessment for current and future science teachers as used by science teacher educators and in science departments.

Chairs: *Danielle Scharen and Khushbu Singh*

Educational Technology: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about technology use and training for present and future science teachers as used by science teacher educators.

Chairs: *Jonah Firestone and TBD*

Equity & Diversity: Proposals for this strand will foreground and critically examine issues of equity, inclusion, and diversity that are central to science teacher education, science education, and science.

Chairs: *Seema Rivera and Jacob Pleasants*

Ethnoscience and Environmental Education: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about

culture, diversity and environmental education for current and future teachers.

Chairs: *Michelle Forsythe and Hong Tran*

History, Philosophy, and Nature of Science: Proposals for this strand will be in the form of practice, theory or research pieces that inform science teacher educators about history, philosophy and the nature of science (not limited to science practices) for current and future science teachers.

Chairs: *John Pecore and Vicente Handa*

Informal/Out-of-School Science Education: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about informal science education for current and future science teachers.

Chairs: *Michael Dentzau and Holly Plank*

Policy, Advocacy and Reform: Proposals for this strand will be in the form of practice, white papers, position statements or research pieces that inform science teacher educators about policy and reform and how each impacts science teacher educators and education.

Chairs: *Iliana De La Cruz and Carrie-Ann Sherwood*

Preservice Science Teacher Preparation-ELEMENTARY: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about science teacher preparation programs.

Chairs: *Karthigeyan Subramaniam and Sarah Carrier*

Preservice Science Teacher Preparation-MIDDLE/SECONDARY: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about science teacher preparation programs.

Chairs: *Elizabeth Edmonson and Amanda Obery*

Professional Development for Science Teacher Educators (Workshops)

Proposals for one-hour workshops for science teacher educators can be submitted to this strand. Workshops are currently embedded in the conference schedule, rather than being scheduled preconference.

***Chaired by the PD Committee**

Science Teacher Professional Development-ELEMENTARY: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about science teacher professional development.

Chairs: *Stephen Thompson and Heidi Cian*

Science Teacher Professional Development-MIDDLE/SECONDARY: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about science teacher professional development.

Chairs: *Angela Webb and Preethi Titu*

STEM Education: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about STEM education, our understanding of what STEM means and the National Standards for STEM for future and current science teachers.

Chairs:*Anne Gatling and Stacey Britton*

Student Learning P-12: Proposals for this strand will be in the form of practice or research pieces that inform science teacher educators about the relationship between student learning and current and future science teachers.

Chairs: *Jennifer Oramous and Chris Ham*

Concurrent Session Formats

There are several different session formats featured at our annual conference on a regular basis. Proposals should indicate the relevant format for the proposed session.

Individual Paper Presentation: Each one-hour session consists of three individual papers related to the same thread as determined by the conference chairs. Each presenter will discuss a research study, philosophical viewpoint, position, or innovative idea. The session presider will manage the time and facilitate the transition from one presenter to the next. (20 minutes per presenter)

Themed Paper or Poster Set: Each one-hour session consists of a group of presentations related to a common theme as determined by the authors. The proposals must be submitted as a group to be considered as a single themed session. Each presenter will discuss research, a philosophical viewpoint, position, or innovative idea. A discussant may be chosen by the group submitting the themed paper set, but will not be provided by ASTE. Authors will need to determine how to use the allotted time.

Individual Poster Presentation: Each presenter will prepare and display a visual representation of research (completed or in-progress), issue, or practice related to science teacher preparation. Appropriate displays include posters or other creative formats. Presenters will participate in one-on-one conversations about their displays during the formal poster session.

Small Group Roundtables: Each (one-hour) session offers the opportunity for participants to share and discuss creative pedagogy, issues and trends, culture, history, and research in an intimate and informal manner. Presenters will be paired with two to five presenters with papers on a similar topic. A presider will allow each presenter to provide a brief synopsis (5-7 minutes) and then allow time for table group discussion to share perspectives on the issues presented. Audience members may circulate among tables throughout the session.

Professional Development for Science Teacher Educators (Workshops): Opportunities are embedded within the conference schedule (same time as concurrent sessions) for one-hour engagement in sessions designed to provide professional development for science teacher educators on a variety of topics related to teaching, research, and career growth/development.

Exploratory Session: This session type is intended to elicit the creativity of our membership to share innovative ideas in innovative ways. Do you envision something relevant to the ASTE membership that doesn't quite fit a workshop or other format above? Propose this type of format to engage members in a 1-hour session on a topic of your choice. **Keep in mind that this is an "alternative" session type. Attendees will be coming to your session expecting a different experience in some noticeable way. Don't approach the planning the same way you would any other format, and make sure they leave feeling like it was correctly labeled as an exploratory session.*

Proposal and Submission Guidelines

Submission Process and Deadline

To receive full consideration, proposals must have been submitted and any edits must be completed **by midnight, Pacific Daylight Time, the night of July 10, 2024**. Any proposal submitted after that date will only be considered if space and time permit.

To submit your proposal, visit: <https://theaste.org/meeting/proposal-submission/>

Proposal Requirements & Author Limitations

Proposals submitted for presentations at the ASTE Annual Conference MUST be original work that has not been / will not be presented at any other conference (e.g., AERA, ASERA, NARST, EASE, ESERA). In addition, authors are limited to being:

1. First author on only one stand-alone paper or a paper within a related paper set.
2. First author on only one interactive poster paper.
3. First author on only one roundtable.
4. Presenter in only one exploratory session or related paper set.
5. Secondary author on any number of stand-alone, related paper set, and/or interactive poster papers.
6. Workshops are exempt from author limitations.

Guidelines for Preparing Your Proposal (non-workshop)

Proposals should be single-spaced with 1" (2.54cm) margins on US Letter size (8.5" by 11") and use fonts no smaller than 12pt. Proposals for all session types except themed paper/poster sets should be no more than 5 pages in length. Themed paper/poster sets should be submitted as a **single proposal** of no more than 10 pages. References, tables, and figures do NOT count toward your page limit and should adhere to APA format. All proposals should be blinded for review, utilizing pseudonyms for names of authors and other identifying information (location, name of program, etc.) and submitted as a PDF file.

Program Abstract - Please include a brief description (no more than 350 words including spaces) that will appear along with your title in the program.

Proposal Body- Your session proposal should address the following:

1. Identify the challenge or issue within science teacher education that your presentation addresses.
2. Describe your theoretical or conceptual framework and describe the work you have been doing to address the challenge or issue you have indicated. If this is a research study, then supply some findings.
3. Explain your findings and/or the information you will present to those in attendance.
 - a. For Research Paper: Describe the data analysis processes and results in light of the challenge and theoretical/conceptual framework that situates this work.

- b. For Innovation and Position Papers: Describe what you will present during the session
 - c. For Exploratory Sessions: Describe how the presentation will share innovative ideas in novel ways that *differ* from a workshop or traditional presentation session.
4. Justify your presentation's contribution to the knowledge base for science teacher education.
5. Identify who within the ASTE membership would be most interested in your presentation (e.g., methods instructors, educational researchers, curriculum developers, etc.) and what you expect for them to learn from this presentation.
6. Provide a comprehensive reference list.

Guidelines for Preparing Your Workshop Proposal

Proposals should be single-spaced with 1" (2.54cm) margins on US Letter size (8.5" by 11") and use fonts no smaller than 12pt. Proposals must be no more than 5 pages in length. References, tables, and figures do NOT count toward your page limit and should adhere to APA format. All proposals should be blinded for review, utilizing pseudonyms for names of authors and other identifying information (location, name of program, etc.) and submitted as a PDF file.

Program Abstract - Please include a brief description (no more than 350 words including spaces) that will appear along with your title in the program.

Proposal Body - Your workshop proposal should address the following:

- Purpose and Learning Objectives: Describe the purpose of your workshop and how it relates to the professional development of ASTE members regarding science teacher education. What are your learning objectives for participants? Who in the ASTE membership will your workshop be of interest to?
- Workshop Activities: Describe the activities that participants will be actively engaged in during your workshop. Activities should be highly interactive for participants. As much as possible, please try to give reviewers a clear picture of what will happen during your workshop.
- Post-Workshop Follow-up: What availability/ resources will you provide for participants post-workshop? What plan do you have for continued support and availability to participants post-workshop that will foster ongoing learning and collaboration?

- Expertise of Presenters: Please describe how presenter(s) have the relevant and necessary experience and expertise to achieve the goals of the workshop.
- Diversity and Equity Focus: Please describe how workshop activities are appropriate to diversity and equity topics, high quality, and/or reflect best practices.
- References: (If Applicable) Provide a comprehensive reference list.

Proposal Rubrics

All proposals for the annual meeting are reviewed by at least two proposal reviewers, using the rubric criteria below. The criteria are designed to address diverse submission types (e.g., research studies as well as position papers or descriptions of innovative programs or practices).

Research Studies and Philosophical Viewpoint Rubric

REVIEW CRITERIA Criteria (1=inadequate to 5=superior)

1. Clear focus/problem:

The proposal has a clear focus and/or addresses a problem that is timely and significant to science teacher education.

2. Theoretical or conceptual framing:

The research study or philosophical viewpoint described in the proposal is grounded in a conceptual or theoretical framework and in the research base for science teacher education.

3. Methodology/Design (for research study) or Organization/Quality (for other presentation types):

- For research studies, the work is based on sound methodology and research practices.
- For philosophical viewpoints, it is clear how the logic and coherence of arguments is tied to the theoretical or conceptual framework.

4. Findings/Conclusions (if research study), Contributions (for philosophical viewpoints):

The work contributes to the knowledge base in science teacher education either

through using evidence to answer one or more research questions or articulating a philosophical viewpoint.

5. Relevance to science teacher education:

The proposal is relevant to the mission of ASTE to advance policy and/or practice through scholarship, collaboration, and innovation in science teacher education.

6. Interest to the ASTE membership:

The proposal session has implications for the work and interests of the ASTE membership– including science teacher educators in a variety of roles, and contexts (e.g., preservice/ inservice or formal/ informal).

For Exploratory Sessions:

The proposal describes how the presentation will elicit the creativity of our membership to share innovative ideas in innovative ways that differ from a workshop or traditional presentation session.

Innovations or Position Submission

1. Clear focus/problem:

The proposal has a clear focus and/or addresses a problem that is timely and significant to science teacher education.

2. Theoretical or conceptual framing:

The position or innovation described in the proposal is grounded in a conceptual or theoretical framework and in the research base for science teacher education.

3. Methodology/Design (for research study) or Organization/Quality (for other presentation types):

- For position papers, the position is well-grounded in the existing literature and considers multiple perspectives and arguments.
- For innovations, there is a clear connection to the theoretical or conceptual framework and pedagogical perspective of the authors.

4. Findings/Conclusions (if research study), Contributions (for philosophical viewpoints, position paper, or innovations), and Evaluation/Support (for workshops):

The work contributes to the knowledge base in science teacher education either

through synthesizing the existing literature and the implications for practice, and/or by providing evidence of the effectiveness of an innovation.

5. Relevance to science teacher education:

The proposal is relevant to the mission of ASTE to advance policy and/or practice through scholarship, collaboration, and innovation in science teacher education.

6. Interest to the ASTE membership:

The proposal session has implications for the work and interests of the ASTE membership– including science teacher educators in a variety of roles, and contexts (e.g., preservice/ inservice or formal/ informal).

Workshop Submissions

1. Clarity of focus on science teacher education:

Purpose of the workshop is clear and relevant to science teacher education.

2. Relevance to ASTE membership:

Workshop is likely to be of interest to a large portion of the ASTE members (broad appeal).

3. Learning Objectives:

Objectives are appropriate and achievable for the workshop format/time allotted.

4. Content of Proposed Workshop:

Workshop activities are appropriate to the topic, high quality, and instructional strategies reflect best practices. Activities are highly interactive.

5. Active Engagement Strategies:

Presenters give a list of the engagement tools and strategies they will use, and clearly describe how those tools will be used during the workshop to support participants to meet the learning objectives.

6. Availability post-workshop:

Presenters offer a clear plan for continued support and availability to participants post-workshop that will foster ongoing learning and collaboration.

7. Expertise of Presenters:

Presenters have the necessary experience and expertise to achieve the goals of the workshop.

8. Diversity and Equity Focus:

Workshop topic and activities have a clear diversity and equity focus.

Conference Volunteers

ASTE members play a vital role in making our annual conference a success! Please consider serving our association in one of the volunteer roles below. Volunteers must be a current (2024) member to be appointed to these positions. To volunteer, please fill out our [online application](#).

Thread Coordinators

Thread coordinators are appointed for a 2-year term. They work with the ASTE Program Coordinator to build the conference program by evaluating proposal reviews for their assigned conference thread, and making a final recommendation based on that to accept/reject proposals to the annual meeting. They also suggest ways that accepted proposals might be grouped to create coherent sessions. Most of the Thread Coordinators' work takes place in late July to mid-August, and is conducted remotely.

Proposal Reviewers

Proposal reviewers are appointed annually to review proposals submitted to a particular conference thread using the review criteria as specified in the Call for Proposals. Reviews are managed online through the ASTE website, and are submitted electronically. Reviewers typically are responsible for reviewing 6-8 proposals, depending on the number of submissions and number of reviewers.

Session Presiders

Session presiders help ensure our annual meeting runs smoothly and is a positive experience for both presenters and attendees! Presiders identify and welcome the presenters to the assigned session, assist them in preparing to use the presentation equipment, and verify the order of presentations for the session. They

also monitor time to ensure the session begins/ends as scheduled, and ensure that all presenters are provided their allotted time to speak. They facilitate question & answer from the audience, and thank presenters and attendees for participating in the session.