



Council on Technology and Engineering Teacher Education

2015 Conference Schedule

Wednesday, March 25th

4:00pm-6:00pm: CTETE Executive Committee Meeting

8:00pm-11:00pm: CTETE Yearbook Committee Meeting

Thursday, March 26th

1:00-1:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *Transforming Teaching through Implementing Inquiry: Pilot Results*
Presenter(s): Aaron Clark, Jeremy Ernst, William DeLuca, and Andrew Hughes
Description: This paper will present the preliminary results of an online professional development system created teachers in our field that is modeled after National Board Certification.
CTETE Presentation

- 2) Title: *Inquiry, Design, and Technology to Integrate STEM*
Presenter(s): Todd Kelley and Geoff Knowles
Description: This presentation will propose the use of scientific inquiry and engineering design to teach the science of entomology and innovative technology to promote STEM learning.
CTETE Presentation

2:00-2:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *Research-Based Outcomes of STEM Content Coaching*
Presenter(s): Chris Merrill and Joshua Brown
Description: Research outcomes of a one-year content coaching professional development approach for middle and high school STEM teachers will be discussed.
CTETE Paper/Research Presentation
- 2) Title: *The Project Kaleidoscope Summer Leadership Institute Experience*
Presenter(s): Mark Mahoney
Description: This presentation shares the Project Kaleidoscope Summer Leadership Institute Experience experience and how the summer program prepares new STEM leaders to act as change agents.
CTETE Presentation

Thursday, March 26th (continued)

3:00-3:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *Appropriate Technology in the T&E Curriculum*
Presenter(s): Marie Hoepfl
Description: This presentation will report on the findings of recent studies outlining the concepts, topics, and skills that an appropriate technology-oriented high school curriculum should include, and teacher beliefs and attitudes about the importance of including these topics in the T&E education curriculum.
CTETE Presentation

- 2) Title: *STEM Education Interdisciplinary Materials*
Presenter(s): Aaron Clark, Jeremy Ernst, & William DeLuca
Description: Interdisciplinary materials were generated by a team of university educators from engineering, mathematics education, and science education. Materials will be discussed and distributed to attendees.
CTETE Presentation

4:00-4:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *Characteristics of PLTW and EbD contributing to Integrative STEM*
Presenter(s): David Rouch, Richard Miller, Brandon Ike, Ben Freer, Ben Somsak, and Michael James
Description: A comparison of PLTW and EbD on variables such as Professional Development, Costs/Sustainability, Curriculum accessibility, Administrative support, Level of recognition across disciplines, and Reported results.
CTETE Presentation

- 2) Title: *A Comparative Analysis of Spatial Visualization Ability*
Presenter(s): Petros Katsioloudis
Description: This presentation will discuss if there are differences between the impact of model type (2D drawing, 3D computer generated drawing, 3D printed object) on spatial visualization.
CTETE Presentation

6:15-7:45 CTETE Yearbook and Awards Dinner (ticket required)

Friday, March 27th

1:00-1:50 (1 CTETE Session)

- 1) Title: *Graduate Student Forum*
Presenter(s): CTETE Research and Scholarship Committee
Description: Graduate students and early career researchers describe their Technology and Engineering Education research efforts at a roundtable setting. Presentations are made concurrently and will rotate at 20 minutes.
CTETE Presentation

2:00-2:30 CTETE Business Meeting (open to all)

2:30-3:50 Committee Work Sessions (open to all)

3:15-4:00 JTE Editorial Board

4:00-5:00 JTE Management Board

4:00-4:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *STEM Education Models and Students with At-Risk Indicators*
Presenter(s): Jeremy Ernst and Elizabeth Glennie
Description: This session provides preliminary student performance-based ability findings of the National Science Foundation funded *Redesigned High Schools for Transformed STEM Learning (TSL)* Project.
CTETE Presentation
- 2) Title: *STEM Integration into the Curricula*
Presenter(s): Paul Asunda
Description: A discussion on STEM integration practices into the curricula, highlighting ways to think about a conceptual framework that facilitates teaching of STEM concepts and integration.
CTETE Presentation

5:00-6:00 CTETE Executive Committee Meeting

Saturday, March 28th

8:00am – 10:00am (CTETE Poster Sessions)

- 1) Title: *International Communication Technology and Culture Exchange Project*
Presenter(s): Philip Cardon and Kazuhiro Sumi
Description: International communication technology and culture exchange project, creating multimedia and learning about cultures, between Saga University, Japan, and Eastern Michigan University, Michigan.
CTETE Poster Presentation

Saturday, March 28th (continued)

- 2) Title: *What happens when design and science intersect?*

Presenter(s): Todd Kelley and Rachel Taylor-Smith

Description: Findings from NSF project Science Learning Through Engineering Design (SLED) can inform secondary teachers teaching students pre- exposed to engineering design in elementary science.

CTETE Poster Presentation

- 3) Title: *Design Successes and Academic Realization in an Elementary STEM Lab*

Presenter(s): Sharon Bowers (lead), Barry Potter, Songze Li, Jeremy Ernst

Description: Learn more about the 7E model of learning and its impact on standards-based instruction. Preliminary data supports an increase in student understanding as a result of design-based instruction with two fifth grade classes.

CTETE Poster Presentation

8:00-8:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *EbD™ Curriculum and Instruction in Higher Education*

Presenter(s): Roger Skophammer

Description: What is the role for Engineering byDesign™ in higher education? Participants will explore and discuss models for articulation, professional development, and teacher education programs.

CTETE Presentation

- 2) Title: *Leveraging Industry Experiences to Transform Classroom Practices*

Presenter(s): Bradley Bowen

Description: Proven to be a valuable contribution to professional development in STEM learning, discover how immersive industry experiences translate into transformative classroom resources for teachers.

CTETE Presentation

9:00-9:50 (2 CTETE Sessions – Separate Rooms)

- 1) Title: *Safety and Health Education as ESD in Technology Education*

Presenter(s): Hidetoshi Miyakawa and Erina Masuda

Description: This study compared the safety and health education as ESD related contents between Japanese and U.S. technology textbooks.

CTETE Presentation

- 2) Title: *Exemplary Teaching Practices in T&E Education*

Presenter(s): Marie Hoepfl, Jerianne Taylor, Chris Merrill, Scott Warner

Description: A panel of contributors to the 2015 CTETE Yearbook on exemplary teaching practices in T&E education will present highlights from their case studies of excellent teachers.

CTETE Presentation