

APRIL 12, 2024

UNI Science Education

2024 Update Conference Agenda

AGENDA



8:30 AM

**Check-in, Continental
Breakfast, & Exhibits**

Commons Ballroom

9:00 AM

Welcome & Introductions Commons Ballroom

- **Robert Good**, UNI Alumnus, Professor of Medicine at Carle Illinois College of Medicine, and Internal Medicine Attending Physician at Carle Health
- **Jennifer Cooley**, Interim Dean, College of Humanities Arts and Sciences
- **Larry Escalada**, Director of Science Education

9:05 AM

**Keynote Presentation
A Teacher's Gift**

Commons Ballroom

- **Dr. Kevin Smith**, UNI Alumnus, DPM and PhD, Dean of the College of Podiatric Surgery at Des Moines University

AGENDA

10:00 AM **Morning Extended Sessions** **Locations Vary**

11:30 AM **Lunch/Networking/Exhibits/
Self-Guided Botanical Center
Tours** **Commons Ballroom**

Welcome

- Mark Nook, UNI President
- Jose Herrera, Provost and Executive Vice President for Academic Affairs

Networking Groups

- UNI Physics Endorsement (Jeff Morgan and Larry Escalada)
- UNI Computer Science Endorsement Program (Ben Schafer)
- UNI MA in Science Education (Dawn Del Carlo)

Exhibits

- **UNI Science Education** (Dawn Del Carlo and Alison Beharka)
- **ICEC** - Iowa Conservation Education Coalition (Linette Bernard)
- **Blank Park Zoo Education** (Nikki Dunbar)
- **UNI Physics** (Paul Shand and Jeff Morgan)
- **Iowa PBS** (Tiffany Morgan)
- **Tallgrass Prairie Center** (Laura Jackson)
- **Microtech** (Warren Holmes)
- **Northeast Iowa Stem Hub** (Jeff Beneke)

**1:00 &
2:00 PM** **Afternoon Sessions #1 & #2** **Locations Vary**

3:00 PM **End of Conference,
Refreshments, Evaluations,
Door Prizes, & Farewells!** **Commons Ballroom**

DESCRIPTIONS

Morning Sessions #1: (10:00 am – 11:20 am)

- **Thomas Hockey - Rod Library 301**
 - *IF-AT Testing Forms in the Science Classroom*
 - AI threatens on-line student assessments. The IF-AT test form combines advantages of a computer-scored and pen-and-pencil exam. Its unique scratch design, using a traditional multiple-choice format, gives the student immediate feedback, while maintaining an offline testing environment.
- **Pramod Mahajan - Rod Library 287**
 - *Soapy Cilantro : A Facile Genomics Tool For Improving STEM Education, Precision Medicine & Health Care Policy*
 - This workshop is an overview of 'SoapyCilantro', a genomics education tool, consisting of a three credit continuing education course for STEM teachers and a companion kit to empower them to engage K6-12 students in hands-on genetic analysis experience.
- **Tiffany Morgan - Rod Library 286**
 - *Local Phenomena for Your Classroom From Iowa Science Phenomena*
 - Learn how you can start using local phenomena in your classroom today with Iowa PBS Iowa Science
- **Michelle Tindall - McCollum Science Hall 112**
 - *OpenSciEd: Instructional Routines that Put Your Students at the Center of the Learning*
 - Deep learning is achieved when students are presented with an engaging phenomenon they can't initially explain. By employing the tools of science, students are able to develop an explanation for the phenomenon through investigations and evidence-based arguments

DESCRIPTIONS

Afternoon Sessions #1 (1:00 pm – 1:50 pm)

- **Christopher Like - Scholarspace 301 Rod Library**
 - *Science Curriculum: Creating, Adopting, or Adapting*
 - Choosing a curriculum for Science can be complicated. For a long time, teachers have been creating their own experience for students. What advantages are there in adopting a high quality instructional material? When should teachers create their own?
- **Jesse Wilcox - Rod 287**
 - *Standard-based Grading for Science*
 - In this session, we will discuss the challenges of using standards-based grading in science, potential solutions to those challenges, and provide concrete examples of how to implement SBG in the science classroom.
- **Tammy Askeland-Nagle - Rod 286**
 - *Creating and Sustaining the Iowa Science Learning Community*
 - Come see (and join!) a successful online professional learning group that promotes collaboration around universal problems of practice. Participants will gain access to tools and resources to make use of on their own or within their local PLC
- **Stephanie Witte - Botanical Center**
 - *Plant Propagation Demonstration*
 - This hands-on activity will offer three different probation techniques: 1) Stem Tip cutting, 2) Plantlet, 3) Stem section Cutting. Participants will take home three cuttings to root at home.

DESCRIPTIONS

Afternoon Sessions #2 (2:00 pm – 2:50 pm)

- **Jeff Morgan - Begemann 314**

- *Generators*
- This session will engage participants in selected activities from the PRISMS Plus learning cycle on generators. Activities within this learning cycle may be used in physics or physical science classrooms to build student understanding of the Next Generation

- **Kyle Gray - Latham 232**

- *Teach about human energy uses AND meet the NGSS standards. (A new curriculum)*
- The Iowa Secondary Energy Curriculum Project (ISEC) has created 10 units that teach about electrical energy generation, distribution, and use within the context of the NGSS standards. Come learn more about this amazing opportunity.

- **Michelle Tindall - McCollum Science Hall 112**

- OpenSciEd: Instructional Routines that Put Your Students at the Center of the Learning
- Deep learning is achieved when students are presented with an engaging phenomenon they can't initially explain. By employing the tools of science, students are able to develop an explanation for the phenomenon through investigations and evidence-based arguments.