

April 19, 2017



**Advanced National Effective Teaching Institute (NETI-2)**  
**June 23-24, 2017**  
**The Hyatt Regency,**  
**350 N High St, Columbus, OH 43215**

Dear Colleague:

The National Effective Teaching Institute (NETI-1) has been given since 1991, reaching over 1000 participants from over 200 different schools. Over the years many NETI alumni have expressed a desire for a follow-up workshop that covers more advanced topics. In October 2012, the first such workshop (designated NETI-2) was given in Seattle and received 37 “Excellent,” 8 “Good,” and no “Average,” “Fair,” or “Poor” ratings. The next offering is scheduled for this June in Columbus, Ohio.

NETI-2 is designed for instructors who are familiar with concepts and methods covered in the basic NETI and wish to explore techniques that pose greater challenges to both instructors and students but promote greater learning and acquisition of high-level skills (including those listed in ABET Outcomes 3a–3k). It will be directed by Susan Lord, Matt Ohland, and Michael Prince, who also direct NETI-1. Like that workshop, NETI-2 will be highly interactive and will provide extensive opportunities for the participants to plan applications of the workshop content to their own courses. The registration fee is \$1,050.

You are invited to nominate one or two of your faculty members to participate in NETI-2. Please return a copy of the enclosed application form and a check for the registration fee made out to ASEE/NETI at your earliest convenience. If it is more convenient for you, you can send a completed application as a PDF to me at [h.deale@asee.org](mailto:h.deale@asee.org). *We will accept up to 50 applications on a first-come, first-served basis.* We will contact your nominees directly by e-mail to give them further details about the workshop. If your institutional policies make it difficult for you to prepay, please have the nominees send a personal check made out to ASEE/NETI, and note that it is for NETI-2. We will issue a receipt so your institution may reimburse them.

We look forward to hearing from you. If you have any questions about the workshop content, please contact Michael Prince at [prince@bucknell.edu](mailto:prince@bucknell.edu). For other questions, please contact Heather Deale at ASEE headquarters (202) 331-3534 or via email ([h.deale@asee.org](mailto:h.deale@asee.org)).

Sincerely,

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## ADVANCED NATIONAL EFFECTIVE TEACHING INSTITUTE (NETI-2)

June 23-24, 2017

Columbus, OH.

**Susan Lord, Co-Director | University of San Diego**

**Matt Ohland, Co-Director | Purdue University**

**Michael Prince, Co-Director | Bucknell University**

NETI-2 is designed to add to the pedagogical expertise of engineering instructors who are knowledgeable about the subjects covered in NETI-1 (course planning, effective lecturing and active learning, and assessment of learning, among other topics). Two instructional approaches will provide the foundation for the workshop content: *cooperative learning* and *inductive teaching and learning* (inquiry-based and problem-based learning). Topics covered for each technique will include definitions, learning benefits and the research base that demonstrates them, implementation suggestions, problems that may arise in implementation and how to avoid them, and how the methods can be used to address ABET Outcomes 3a–3k and promote development of conceptual understanding and high-level thinking and problem-solving skills. Participants will be given opportunities throughout the workshop to plan applications of those techniques in a course they teach. Applications will be accepted on a first-come-first-served basis and will be closed at 50 enrollees.

### Day 1: 8:00–5:00

- **Overview of learner-centered instruction** (active and inductive teaching and learning) **and outcomes-based education** (learning objectives and outcomes)
- **Cooperative learning (CL)**
  - Defining criteria of CL, research base, and structures
  - Forming teams and meeting the defining criteria in lecture, lab, and project-based courses
  - Assessing team products and individual contributions to them
  - Helping students develop teamwork skills
  - Using CL to address ABET outcomes 3a–3k
  - Dealing with student resistance
- **Introduction to inductive teaching and learning.** Inductive methods (inquiry-based learning, project- and problem-based learning, case-based instruction, just-in-time teaching). Similarities and differences, pros and cons, and research base.

### Day 2: 8:00–3:00

- **Inquiry-based and problem-based learning (PBL)**
  - Applying inquiry-based methods to any topic in any course
  - Pitfalls in inquiry-based learning and how to avoid them
  - Applying PBL to any topic in any course
  - Pitfalls in PBL and how to avoid them
  - Using inquiry and PBL to effectively address ABET Outcomes 3a–3k and help students acquire critical and creative thinking skills and deep conceptual understanding
  - Dealing with student resistance
- **Final synthesis and goal-setting exercise**