NATIONAL INSTITUTE on Scientific Teaching

Solve My Problem 2023: Addressing Challenges in Teaching

- **Active Learning**
  - **Group Work** This group could choose to focus on topics such as: How can I create either in-person or online learning experiences where students participate in, enjoy, and benefit from group work? How can I address the challenges of group learning? What tools facilitate productive group work? How can I implement play-based activities or gamification?
  - **Inquiry-based and CURE Lab Courses** This group could choose to focus on topics such as: How can I design introductory labs so that all students learn skills such as experimental design, hypothesis generation, and data analysis? How do I get started with a CURE and decide which is best for my learning goals?
  - **Community of Practice** This group could choose to focus on topics such as: How can I foster a community of practice to engage colleagues (including graduate students or peer learning assistants) in co-teaching and curriculum development?
- **Inclusion and Belonging**
  - **Student Emotional and Social Support** This group could choose to focus on topics such as: How do I demonstrate empathy or reduce the anxiety for students in my courses? How do I know if my efforts are supporting students? How do I care for my own mental health while caring for my students? How can I support neurodiverse students and employ Universal Design for Learning to increase accessibility for all students?
  - **Student Academic Support** This group could choose to focus on topics such as: How do I form a meaningful community of learners that includes students with many backgrounds, perspectives, and lived experience? How can I support first-generation or transfer students? How can I encourage peer mentoring or feedback? How is this generation of students different, and how do I adapt my pedagogy to meet them where they are?
- **Assessment**
  - **Grading Strategies** This group could choose to focus on topics such as: What strategies might I employ to change the culture around grading? How could I use alternatives to traditional grading, such as mastery, specifications, or threshold grading? How can my grading practices be consistent with a culture that promotes students' curiosity, excitement, sense of adventure, and academic integrity? How do we work with AI and not against it?

- ○ **Metacognition** This group could choose to focus on topics such as: How can I develop formative assessments that engage students in reflective learning? What practices can I use to promote a growth mindset and student persistence?

Questions? Contact us at: communications@nisthub.org