



NATIONAL INSTITUTE

on Scientific Teaching

Solve My Problem 2022 - Topics

- **Active Learning**
 - How do I incorporate active learning effectively? How do I still cover all of the course content when students are spending time on activities during class?
- **Critical thinking and problem solving**
 - How can I help my students develop critical thinking and problem-solving skills? Beyond providing opportunities for practice and frequent feedback, how can I teach or model these skills?
- **Empathy and the mental health crisis**
 - How do I demonstrate empathy for my students? How can I 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?
- **Feedback and formative assessments**
 - How do I give feedback that is motivational and actionable? How do I provide feedback in a timely and efficient manner so it is still meaningful to students but also does not overload me as an instructor? How do I give frequent low stakes assessments without overwhelming students with the number of assignments, and without overwhelming the instructors with the amount of feedback required?
- **Flipped learning**
 - How do I make in-class time meaningful in a flipped classroom? How do I transition an online course to a flipped learning course?
- **Grading**
 - 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, passion, excitement, sense of adventure, and academic integrity?
- **Group Learning**
 - How can I create learning experiences where students participate in, enjoy, and benefit from group work, either in-person or online? How can I identify and address the challenges of group learning?
- **Improving lab courses**
 - How can I design introductory lab courses so that all students learn the skills that are needed in a lab setting, such as experimental design, hypothesis generation, and data analysis?

- **Inclusivity**
 - What practices can I use to promote inclusivity in my courses? How do I incorporate these practices in a way that they feel like they're part of the full course design and not an afterthought?
- **Optimizing assessment questions**
 - What are the characteristics of good multiple-choice questions? How can I revise my own questions to increase their effectiveness in measuring student learning? How do I live within the constraints for exams at my institutions?
- **Peer Learning Assistants**
 - How might I engage undergraduates in peer instruction and curriculum development? How can peer learning assistants help to develop a sense of belonging and community in my course? How do I provide peer learning assistants with adequate training?
- **Teaching difficult topics**
 - How do I redesign my science courses to incorporate examples and discussions of social inequities? How do I discuss challenging issues (such as racial inequities in medicine) sensitively and successfully?

Links

- [Information about Solve My Problem](#)
- [Click here to register](#)
- Questions? Contact us at: nistmeeting@gmail.com