
Strategies to promote an inclusive learning environment¹

In this handout will you find several strategies grouped by themes that can be used within the classroom, research group, and co-curricular learning environments.

Within your group, share **specific examples** of :

- how you or a colleague has implemented one of these strategies OR
- how you could envision implementing one of these strategies within your learning context.

Underneath each theme, you will also find space to add other strategies that you have used or that have come up during the discussion that have not been listed.

Transparency: clearly communicate norms, expectations, and evaluation criteria

- Make your expectations for student learning clear.
- Explicitly communicate the purpose, task, and criteria for evaluation (assignments, presentations, etc.). Use rubrics when appropriate.
- Explicitly communicate the purpose for instructional practices in the classroom and mentoring style/philosophy in your research group.
- Share your preferences for how students should communicate with you, what kinds of topics/questions are best for office hours, which are best for email, and which you would like to be brought up in class or research group meetings.
- Offer guidance on how students should allocate and prioritize time for course work.
- Offer guidance on how to balance research and personal time.
- Communicate your goal of creating an equitable and inclusive learning environment.

Sense of belonging: cultivate students' sense of connection to the class, discipline, research group, etc.

- Get to know your students, including their names and preferred pronouns.
- Provide opportunities for everyone to participate during class, research discussion, etc.
- Encourage students to participate in all aspects of the course (recitations, office hours, etc.) and in the research group's academic and social activities.
- Use diverse examples to illustrate concepts, highlight relevant research drawing upon the work of a diverse range of individuals.

¹ Adapted from University of Michigan's Teaching and Learning Center: "Engineering Inclusive Classrooms (Part 2) Guiding Principles and Strategies"

- Be mindful of the context in which you situate examples, problems and other materials. (Humor, cultural references, etc. may not be familiar to ALL students without sufficient context.)
- Create structured opportunities for students to provide feedback on their experience of the learning environment and to contribute ideas for improving it.

Growth mindset: encourage students to adopt the belief that abilities can grow

- Normalize mistakes as part of the learning process.
- Allow for productive risk and failure while communicating that struggle and challenges are important parts of the learning process, not signs of inherent deficiencies.
- Explain to students how expertise develops, including stories of your own and that of others that emphasize process rather than achievements and accolades.
- Encourage students to take advantage of additional resources on campus to help with course and/or research work, while communicating that it is OK to do so.

Feedback: optimize your feedback to students & help students learn to receive and use the feedback you provide

- In your feedback, communicate high expectations, along with your belief that all students can succeed.
- Provide targeted and specific feedback and suggestions about the process (not just the product).
- Provide examples of papers, and projects (both good & bad) and ask students to evaluate them.
- Provide worked examples of quantitative problems and give students opportunities to learn and adopt solution processes and strategies.

Structured interactions: make sure group interactions don't default to patterns of privileging already-privileged voices

- Establish guidelines, ground rules, or community agreements for participation and discussions with input from your students and those in your research group.
- Structure discussions to include a range of voices.
- During long-term group or team projects, provide a process for students to reflect upon the team work/dynamics and provide constructive feedback to one another.

Affirmation of difference: recognize that students bring diverse identities, strengths, and needs to the learning environment

- Assess students' prior knowledge about your field and topics to align instruction with their needs.
- Deliberately choose course materials and activities with a range of student physical abilities and financial resources in mind.
- Communicate concern for students' well-being and share information about campus resources.

- Ask students for concrete observations about content (e.g., describe a figure, summarize a reading) before moving to analytical questions. This can provide a common starting point and highlight students' different perspectives.
- Present material in a variety of modalities (e.g., readings, diagrams, lectures, podcasts, video) rather than relying on one mode of engagement.
- Accompany verbal instructions with a written corollary. This can be helpful to students with processing disabilities and non-native English speakers.