The UW-Madison Laboratory of Genetics is committed to providing world-class education to all students. We strive to offer both graduate and undergraduate students exceptional learning experiences to prepare them for successful careers in science and science-related jobs. While doing so, we aim to support diversity in all forms in recognition that diverse perspectives and interpretations can unlock innovation.

Why engage in inclusive pedagogies?
Students have a broad range of experiences that inform how they engage in learning. These experiences, which are sometimes culturally based, influence students’ prior knowledge of subject matter, understanding of classroom expectations, and motivational triggers. Faculty can enhance all students’ learning by accounting for this variation.

Educational benefits of inclusive teaching:
- Improves academic outcomes for students (aspirations, self-confidence, problem solving abilities, critical thinking, future career prospects)
- Enhances perspectives, fosters creativity, improves cultural sensitivity
- Improves the efficacy of your own teaching and teaching outcomes

Below are some best practices summarized from educational research for inclusive learning in the classroom.

1. Empower students to learn and express their knowledge. This means providing an environment in which each student feels comfortable. Some students learn in different ways but are perfectly capable of meeting your rigorous standards. Other students feel nervous or uncomfortable about their differences (perceived or real), which hinders their efforts.

a). Give clear guidelines of how the course works, including learning objectives (something our students have asked for), how students are assessed (use a rubric) and what the expectations are.

Many students ask for extensions for any number of reasons – but other students, including those from underrepresented cultural or socioeconomic backgrounds, don’t realize they can ask for extensions even when they are justified. Make clear to everyone what your expectations are and what your flexibility may be, if they need it.

b). Make clear that students can come see you in office hours if they don’t understand or are falling behind. Make it clear that you want all of them to succeed.

- A surprising number of students do not come forward when they start to fall behind, either because they don’t know that they should or because they are intimidated. Remind students periodically that they can and should see you or TAs if they feel that they need help or are falling behind.
- Encourage a growth mindset that all students can improve with work.

Researchers such as Carol Dweck (2007) note that students who have a “fixed” view that intelligence is inherent and cannot develop give up when facing challenges. In contrast, those with a “growth mindset”—who see intelligence as malleable—see challenges as opportunities to improve and seek out new ways to learn even if they are
Faculty can help encourage adaptive responses by praising students’ effort, rather than only their achievements, and verbally reinforcing the benefits of a growth mindset.

c) Create an inclusive and comfortable learning environment.

- Set the tone on the first day of class that you want students to succeed, that it will take hard work but you are happy to provide resources to students. Include a diversity statement on your syllabus and mentioning that diverse points of view are valued.

- Learn and use students’ names when possible; learn what students prefer to be called and how they pronounce their names.

- Seek multiple answers or perspectives to questions.

- Encourage discussion rather than focusing exclusively right or wrong answers.

- Structure discussions to include a range of voices: e.g., ask to hear from those who have not spoken, wait until several hands are up before calling on anyone, call on different people.

- Incorporate diversity into your curriculum. Use multiple and diverse examples. Try to consider how those diverse examples will be perceived.

- Do not assume that all students will recognize cultural, literary or historical references that are familiar to you.

- Be intentional about how student groups and project teams are formed. Rotate small-group roles (e.g. who is the note taker, who is the leader) to ensure fairness and equality.

- Carefully frame objectives when raising potentially sensitive or uncomfortable topics.

- Stop or intervene in a discussion if comments become disparaging or devalue other students’ experiences. Be prepared with what you would say.

2. Be conscious of the distinction between course standards and assessment. We aim to maintain rigorous standards, but sometimes how we assess if standards are met can and should change. Not all students learn at the same pace and in the same ways. We aim to provide flexibility to students who need it, to be sure that students of diverse backgrounds, educational needs, and experience can show that they meet the standards, even if they may fail at narrowly defined assessment methods.

- When possible, provide flexibility in how students demonstrate their knowledge and how you assess student knowledge, improvement, and development.

- Use a variety of teaching strategies, activities, and assignments that may enable students with diverse learning styles, backgrounds, and experiences. When possible, vary your assessments (e.g. written, visual or oral presentations) or allow choice in assignments (e.g. allow students to choose from multiple topics).

- Use multiple means of presenting content (e.g. visual, written and oral). Where feasible, use multiple means to evaluate students’ knowledge (writing, speaking, visualizing demonstrating).
Avoid giving verbal instructions or important details without a written corollary, e.g. on a course wiki. This is helpful for students with processing disabilities (dyslexia in particular) and non-native English speakers.

3. Be aware of your own potential biases to ensure fairness in the classroom.

- Be conscious of how you choose which students to call on. Some of our students have questioned if they get called on less frequently because of their differences.
- Think about how your own assumptions may influence your interactions with students.
- Try to think of each student as an individual and avoid making assumptions based on their backgrounds and needs.

Practices for productive student-student interactions:

- Encourage students to learn and use one another's names.
- Use icebreakers regularly so students can learn about one another.
- Establish guidelines, ground rules, or community agreements for class participation.
- In class, have students work in pairs or small groups.
- Rotate small-group roles (e.g. who is the note taker, who is the leader) to ensure fairness and equality

Things to avoid in the classroom:

- Avoid making generalizations about student experiences.
- Avoid making jokes at students’ expense.
- Avoid asking individual students to speak for a social identity group
- Do not allow other students to make biased statements, derisive comments, or insensitive jokes without stepping in. Inaction is acceptance.

Sources of information:

http://www.luther.edu/diversity-at-luther/inclusive-learning/

http://www.crlt.umich.edu/multicultural-teaching/inclusive-teaching-strategies

https://delta.wisc.edu/Academic_Excellence_Initiative/Six_Interventions_Annotated_Bibliography_2014.pdf