

Diversity in the Classroom: Considerations of Race, Ethnicity, and Gender Recommendations for Teachers/Instructors

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This document provides guidance and ideas for creating a welcoming and effective educational environment.

I. From AAUW “Solving the Equation” <http://www.aauw.org/research/solving-the-equation/>

Recommendations for Engineering Professors:

- Emphasize the social impact of engineering and computing work.
- Apply concepts that students are learning in class to community needs, incorporating project-based learning or service learning components into engineering or computing curricula.
- Apply engineering and computing to real-world problems.
- Emphasize ethical and social issues when teaching engineering and computing.
- Encourage a supportive environment in the classroom and in the program.
- Encourage and assist early contact between students and professionals.
- Emphasize the wide variety of expertise necessary to be successful as an engineer or computing professional.
- Highlight as early as possible the different facets that make up engineering and computing.
- Expand examples beyond those that involve stereotypically male applications such as cars or rockets. The NSF-funded Engage project has a collection of gender-neutral Everyday Examples in Engineering that professors can use.
- Introduce students to experiences in the field early in undergraduate coursework to allow students to see the differences between textbook problems and the creativity and critical thinking necessary for actual engineering problem solving.

II. Specific Strategies for Course Design and Interaction with Students

From:

1. Barbara Gross Davis “Tools for Teaching” Chapter 5, Pages 39-46,

<https://www.indiana.edu/~istr695/readingsfall2013/Tools%20For%20Teaching.pdf>

2. Laura Albert McLay “What I do for diversity and inclusion in the classroom,” <https://punkrockor.com/2016/04/21/what-i-do-for-diversity-and-inclusion-in-the-classroom/>

Domains	Strategies
<p>General Strategies</p>	<ul style="list-style-type: none"> • Treat each student as an individual, and respect each student for who he or she is. • Rectify any language patterns or case examples that exclude or demean any groups. • Use terms of equal weight when referring to parallel groups: men and women rather than men and ladies? • Use both he and she during lectures, discussions, and in writing, and encourage your students to do the same? • Recognize that your students may come from diverse socioeconomic backgrounds • Refrain from remarks that make assumptions about your students' experiences, such as, "Now, when your parents were in college. . ." • Refrain from remarks that make assumptions about the nature of your students' families, such as, "Are you going to visit your parents over spring break?" • Avoid comments about students' social activities that tacitly assume-that all students are heterosexual. • Try to draw case studies, examples, and anecdotes from a variety of cultural and social contexts. • Comments that implicitly assume that those in the engineering profession are male and white and heterosexual (e.g., this list called “You might be an engineer” starts by assuming engineers have wives) • Do your best to be sensitive to terminology. • Get a sense of how students feel about the cultural climate in your classroom. • Learn all student names, including correct pronunciation.

Domains	Strategies
Tactics for Overcoming Stereotypes and Biases	<ul style="list-style-type: none"> • Create an atmosphere in class where all students feel safe to speak up and ask questions. • Become more informed about the history and culture of groups other than your own. • Convey the same level of respect and confidence in the abilities of all your students. • Be evenhanded in how you acknowledge students' good work. • Emphasize that engineering is challenging but doable, with an emphasis on doable. • Do not assume that students have the characteristics that reflect stereotypes about their cultural groups.
Course Content and Material	<ul style="list-style-type: none"> • Do not assume that all students will recognize cultural, literary, or historical references familiar to you. • Bring in guest lecturers.
Class Discussion	<ul style="list-style-type: none"> • Emphasize the importance of considering different approaches and viewpoints. • Make it clear that you value all comments. • Encourage all students to participate in class discussion. Every student should have a voice and be heard. • Monitor your own behavior in responding to students. • Reevaluate your pedagogical methods for teaching in a diverse setting. • Speak up promptly if a student makes a distasteful remark, even jokingly. • Avoid singling out students as spokespersons. • Give positive affirmations during class. Reminding students what they learned and how their hard work got them there will be a good reminder that they will be successful if they work hard, which combats imposter syndrome and feelings of being inherently inadequate.
Assignments and Exams	<ul style="list-style-type: none"> • Be sensitive to students whose first language is not English. • Suggest that students form study teams that meet outside of class. • Assign group work and collaborative learning activities. • Give assignments and exams that recognize students' diverse backgrounds and special interests.