Grab some lunch. Then, write your responses to the following questions on an index card...

How well do you know your students?

Why does it matter?

The cards will be collected but are anonymous!
What Yale Students Want You to Know about... Being Human in STEM

Laura Goetz, Joyce Guo, Fadeke Muraina
Faculty: Simon Mochrie, Claudia De Grandi, Andrew Miranker, Helen Caines
Students: Joel Bervell, Lauren Chambers, Erika Hairston, Steph Toyofuku MacLean, Zachary Smithline, Joyce Guo, Laura Goetz, Fadeke Muraina
Survey Demographics

Yale Demographics
Overall Findings

More negative experiences and perceptions of STEM climate at Yale from:

- Cisgender women
- Underrepresented racial minorities

→ Amplified for intersectional identities
Who teaches an introductory class?
Introductory STEM classes are designed to weed out students.
Introductory STEM classes are designed to weed out students.

- Strongly disagree: 38
- Somewhat disagree: 102
- Neither agree nor disagree: 117
- Somewhat agree: 345
- Strongly agree: 173
Introductory STEM classes are designed to weed out students.
Introductory STEM classes are designed to weed out students.
If I felt personally uncomfortable with something in a STEM class, I would feel comfortable approaching the professor.
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<table>
<thead>
<tr>
<th>Response Level</th>
<th>Cis (not trans) man</th>
<th>Cis (not trans) woman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>12</td>
<td>47</td>
</tr>
<tr>
<td>Somewhat disagree</td>
<td>56</td>
<td>154</td>
</tr>
<tr>
<td>Neither agree nor disagree</td>
<td>62</td>
<td>86</td>
</tr>
<tr>
<td>Somewhat agree</td>
<td>112</td>
<td>131</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>44</td>
<td>29</td>
</tr>
</tbody>
</table>
Over the last year, I’ve generally felt confident and comfortable in my STEM classes.
Over the last year, I've generally feel confident and comfortable in my STEM classes.
Should you treat every student in your class the same?
“There’s so much money everywhere there’s so much support available to you and the onus is on you to seek it out, but if you don’t come from a school where that’s the norm it’s harder.”

- Chemistry Student
“Being a low income student in STEM has had a huge impact on my experience. I have always worked at least 2 student jobs during my time at Yale, and managing the rigor of the academic demands of STEM with financial burden can be very difficult [...] Also I had to turn down a research opportunity my freshman summer because of the financial obligation.”

-Pre-Med Student
Goals for Today

Ways to improve STEM climate at Yale overall

Ways to improve equity within STEM at Yale
“As a black woman, I am always conscious of my presentation. From the way I phrase questions I ask in class to what I wear when I attend office hours, I constantly feel this pressure to erase any signature of my identity as a Black Woman that could possibly be linked back to stereotypes. I often feel that this extra layer of self-consciousness has eroded self-confidence as student. Much of my Yale career in STEM has been tainted by an incessant battle with imposter syndrome and stereotype threat.”

--Engineering Student
Imposter Syndrome

What I know

What I think other people know

What I know

What other people know
Stereotype Threat
“I was thinking of doing cogsci or CS, but felt excluded and isolated as a female in large introductory CS classes, especially taking them as a sophomore and not a freshman. It was difficult to find groups with which to work, and I spent hours working alone-- which made me anxious and upset. I wish I had felt like I belonged in that kind of a class-- but ultimately I didn't, and so switched my major to one in the humanities where I feel very comfortable.”
What can you do to make your classroom more inclusive?
Making an Inclusive Space
Small Changes

Reach out to students

Inclusive language (use diverse pronouns, avoid the phrases “obviously,” “as you know”)

Be clear about what is required and what is suggested for your course (to avoid discouraging students)

Get rid of arbitrary rules (harder makeup exams)

Avoid competitive curving (distinct 20% A, 20% A-, 20% B+... cut-offs)
Will absorb the material, but won’t make any changes

Won’t absorb the material, and probably won’t ever get it

Will make their classrooms more inclusive

Will make their classroom more inclusive and encourage their colleagues to do the same
A lack of STEM advising for first-years impacted my choice to major in STEM (or to not major in STEM).
I feel there are STEM professors who look like me at Yale.
Questions?

**Being Human in STEM initiative:**
**Faculty:** Simon Mochrie, Claudia De Grandi, Andrew Miranker, Helen Caines
**Students:** Joel Bervell, Lauren Chambers, Erika Hairston, Steph Toyofuku MacLean, Zachary Smithline, Joyce Guo, Laura Goetz, Fadeke Muraina
**From Academic Strategy Program:** Karin Gosselink, Eva Albalghiti, Nathaniel Barbour, Jamie Ko