

Being Human in STEM: An Experiment in Partnering with Students to Address Issues of Inclusion in STEM

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When student protesters occupied the Amherst College library for four days in November of 2015, the campus community was transfixed by the painful testimonials shared by marginalized students about their experiences at Amherst as individuals identifying as Black, brown, female, queer, trans, disabled, international, low-income, among others. In response to letters from a Black neuroscience major and a non-binary biochemistry and biophysics major, every STEM department wrote a letter of support, pledging to work with students to address their concerns. The following semester, chemistry professor Sheila Jaswal collaborated with students to develop a project-based course, titled “Being Human in STEM” (HSTEM), to actively engage STEM students and departments in learning about and enhancing inclusion. In the course, students drive the academic inquiry, investigating both the local experience and the literature on diversity in STEM. They then use that research to design tools and interventions to share with and enhance their own STEM community. Ongoing at Amherst for the past five semesters, the HSTEM class has nucleated conversation about community experiences and inclusion efforts on campus, and student projects have produced resources to support inclusive practices in the classroom, laboratory, and beyond. Professor Jaswal will discuss the challenges and opportunities of centering the human in a STEM setting and the ways in which the HSTEM model might be adapted to enhance the belonging, persistence and success of humans with diverse identities across disciplines at any institution.



Bio: Sheila Jaswal is an Associate Professor of Chemistry and member of the Biophysics and Biochemistry Program at Amherst College. After growing up in Lincoln roaming the halls of UNL’s Behlen Hall waiting for her father, Prof. Sitaram Jaswal, to finish working with physics students, she graduated from Lincoln High School, where she was part of the 1988 State Champion Gymnastics team (Go Links!). She attended Mills College where she graduated with a B.A. in Biochemistry and German, then conducted research at the Max Planck Institute for Immunology in Freiburg, Germany as a Fulbright Fellow. After receiving her Ph.D. in Biochemistry from the University

of California at San Francisco, she served as a Damon Runyon Postdoctoral Research Fellow in the Department of Molecular Biophysics and Biochemistry at Yale University and a Senior Beckman Research Fellow at Stanford University. She joined the Chemistry Department at Amherst College in 2009 and has established an interdisciplinary research program with undergraduates combining the complementary strengths of experiments and theoretical modeling to discern fundamental principles of protein stability and dynamics. In 2016 she co-founded the Being Human in STEM (HSTEM) initiative with Amherst students, which aims to foster a more inclusive, supportive STEM community by helping students, faculty, and staff collaboratively develop a framework to understand and navigate diverse identities in the classroom, lab, and beyond.