

Spring 2023 Newsletter

Before we close the books on AY 22-23, we wanted to share these brief updates about some of this year's programs and initiatives of the Hanson Center for Inclusive STEM Education, especially those that took place during the spring semester. Thank you to everyone who helped make this year such a success. Together, we are transforming STEM!



Culture of STEM Program

The Hanson Center organized a series of programs for the spring semester around the theme *The Culture of STEM*. The goal of the programming was to explore the norms, values, and practices in STEM and their impact on diversity, equity, access, and inclusion in STEM, all central issues to the mission of the Center.

The program was launched with a terrific visit in February by Dr. Erin Cech (University of Michigan). We had a packed house in Oechsle Hall auditorium for Professor Cech's insightful evening talk "Professional Cultures and Inequality in STEM," a presentation that generated meaningful discussion. Dr. Cech continued the conversation the next day, visiting classes and meeting with faculty and students in small groups, including having lunch with Minerva, a group for women and non-binary faculty and staff in STEM.

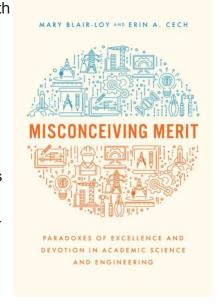


In March, the Hanson Center partnered with Lafayette Refugee Action when Professor Al-Shehabi (Mechanical Engineering) described his journey as a displaced person from Syria as part of a moving afternoon discussion on "Being a Refugee Scientist: The Intersection of the Refugee Experience with the Advancement of Science."

Later in the semester, Dr. Mary Blair-Loy (University of California, San Diego) spoke on "Misconceiving Merit: Paradoxes of Excellence and Devotion in Academic Science... And What To Do About It", a title that reflects her recent

book of a similar name which was co-authored with Dr. Cech. Dr. Blair-Loy's perspective was especially rewarding to the faculty and staff who participated in this semester's Hanson Center Book Group, which read *Misconceiving Merit*.

The Culture of STEM programming culminated in lunchtime campus-wide presentations by students from the *Being Human in STEM* course (see below). We are grateful to the following groups for co-sponsoring the Culture of STEM Program: Africana Studies Program, Anthropology and Sociology Department, Engineering Division,



Psychology Department, and the Women's, Gender and Sexuality Studies Program.



Science, Technology, Engineering, and Mathematics

RAISE Up Inclusive STEM Retreat

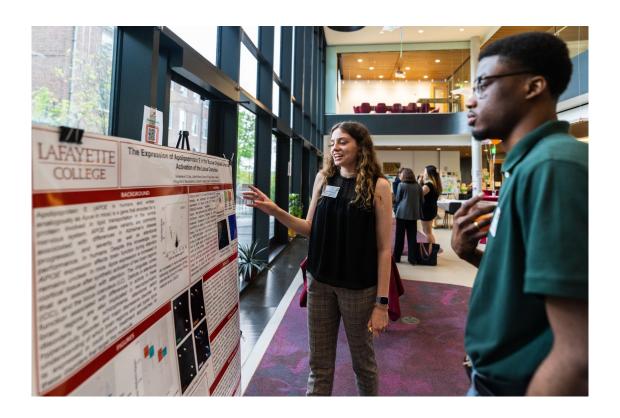
The new student group RAISE (Representatives to Advance Inclusive STEM Education) organized an outstanding inaugural conference on April 22nd-the RAISE Up Inclusive STEM Retreat! The goal of the retreat was to educate, empower, and inspire Lafayette students, faculty, and staff to help promote a more diverse, equitable, and inclusive STEM community. RAISE members and other groups on campus developed dynamic and interactive programming for the retreat that included workshops, networking opportunities, and alumni panels. Over 140 students, faculty, and staff registered for the event-and even the Lafayette mascot attended, sporting a stylish lab coat!



We kicked off the retreat with lunch and an uplifting keynote presentation by Dr. Lataisia Jones, Scientific Review Officer at the National Institute of Neurological Disorders and Stroke. Dr. Jones is an *If/Then Ambassador* for the American Association for the Advancement of Science as part of a program that seeks to further women in STEM "by empowering current innovators and inspiring the next generation of pioneers." She is also the founder of *S.T.E.M.ing while Black*, a mentorship network that supports Black scientists. Retreat participants then selected from nine different workshops organized throughout the afternoon, from learning ways to be better allies for members of our STEM community to how to network and tell your "STEM story" more effectively. Attendees had the chance to engage with alumni working or going to graduate school in a variety of STEM fields via "Hot Seat" sessions.

The retreat finished with a fun and informative closing session, "RAISE a Glass - Mocktails, Posters, and Networking." As a jazz duo played, participants enjoyed mocktails and delicious appetizers in the courtyard and cafe area of the Rockwell Integrated Sciences Center while networking and learning about the research students are conducting. We indeed raised our glasses when student leaders provided an inspiring toast to inclusive STEM as they reflected on the day's efforts. Throughout the entire retreat, a graphic illustrator captured our ideas and the topics we explored (below is a section drawn during the RAISE a Glass session).





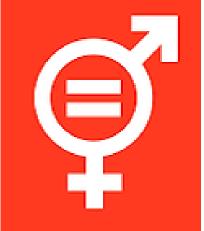
Feedback on the event was enormously positive as captured by the following survey response: "The most important thing I took away from the retreat was a new sense of belonging in the STEM community and excitement about my future path within the sciences."

Many thanks to the RAISE leadership team for all of their creativity, outreach, and many efforts in organizing this significant event: Harshil Bhavsar '23, Michael Bonnah '23, Sabrina Gonzalez '23, Jessie Grewal '23, Rachel Kimball '26, Sophia Kosednar '24, Bruno Loyola San Martin '25, Jessica McDivitt '24, Youmin Park '14, and Louisa Rose '23. We also appreciated the partnership of the Kovalevsky Society, LEADERS, National Society of Black Engineers, Out in STEM, Society of Hispanic Professional Engineers, Society of Women Engineers, and Women+ in Physics. Lastly, we are grateful to the Biology Department, Engineering Division, Gateway Career Center, Information Technology Division, Sustainability Office, and the Women's, Gender, and Sexuality Studies Program for helping to co-sponsor this inaugural event. #RaiseUpLaf



Members of the RAISE leadership team during one of their meetings working to organize the RAISE Up Inclusive STEM Retreat.

Lafayette Allies for Gender Equity (LAGE)



One of the faculty groups the Hanson Center supports is the *Lafayette Allies for Gender Equity* (*LAGE*). This learning community for male and non-binary faculty seeks to build capacity as allies and advocates for gender equity. LAGE meets once a month at lunchtime to discuss readings and explore allyship. Seven faculty from a range of departments and programs participated in this year's discussions. In addition, as part of the Culture of STEM programming, current and past

participants in LAGE met with Dr. Erin Cech and Dr. Mary Blair-Loy during their visits to Lafayette to discuss how these scholars' research informs efforts to bring about gender equity. We thank this year's LAGE co-organizers – Professor Mike Butler (Biology) and Professor Michael Senra (Chemical and Biomolecular Engineering) – for facilitating discussions. If you are interested in being a part of the LAGE learning community for AY 23-24, please contact either Professor Butler (butlerm@lafayette.edu) or Professor Senra (senram@lafayette.edu)



Lafayette Delegation to the United Nations

The Hanson Center partnered with the Engineering Division, the Sustainability Office, and the Women's, Gender, and Sexuality Studies Program in sending 35 students from 10 countries along with eight faculty and staff to the **8th International Day of Women and Girls in Science Assembly**. The conference was held at the U.N. headquarters in New York on Feb. 10 and the theme of the assembly was *Innovate*. *Demonstrate*. *Elevate*. *Advance*. *I.D.E.A.*: *Bringing Communities Forward for Sustainable and Equitable Development*. Speakers included global dignitaries, ambassadors, corporate and NGO

leaders, and renowned scientists.
Students were able to meet with a number of these participants including the chair of the assembly Her Royal Highness, Dr. Nisreen El-Hashemite, Executive Director of the Royal Academy of Science International



Trust (RASIT), who has a Ph.D. in genetics and is a prominent advocate for gender equity in STEM (see photo). "It was an amazing opportunity for Lafayette students, faculty, and staff," noted Dr. Mary Armstrong, program chair and Charles A. Dana Professor of Women's, Gender, and Sexuality Studies. "We got to be together in a place where incredible speakers from all over the world were addressing issues of diversity in STEM and sustainability, and trying

to think together about ways to make a difference and bring women and girls into the solution."



New Course Taught: Being Human in STEM

The Hanson Center director, Dr. Wendy Hill, taught a new course spring semester, INDS253: Being Human in STEM, which added to the offerings in Inclusive STEM Studies at the College. Drawing insights and inspiration from similarly-named courses taught at other institutions (e.g. Amherst, Davidson, Macalester, University of Pennsylvania, and Williams) this seminar course examines the lack of diversity in STEM by exploring individual narratives and research on how gender, race/ethnicity, sexuality, and other social identities impact academic and professional experiences in STEM. The course drew students from a range of majors, which contributed to lively and wide-ranging discussions about evidence-based interventions to enhance the policies, practices, and culture of STEM. Students explored their own STEM journeys as well as those of others, and collaborated on a final research project to foster greater inclusion, diversity, equity, and access in STEM. The course concluded with each group presenting their research proposals to the campus during the final week of classes as a way to increase awareness of these issues and foster positive change at Lafayette and beyond. Topics ranged from strengthening mentor networks for students from historically minoritized groups through mentor maps and mentor training programs at Lafayette to recommendations for educational and structural changes to Massive Online Open-Access Courses (MOOCs) to more fully realize their potential in increasing global access to STEM education.

New Research-Based Peer Mentor Programs Finish Strong

This year the Hanson Center launched three research-informed, peer mentor programs for first-year students in computer science, engineering, and psychology. Research has shown that peer mentoring helps first-year students transition to college and positively impacts their academic success and sense

of belonging. Nearly 100 first-year students were paired with juniors and seniors with similar academic and co-curricular interests. Mentors and mentees built on the relationships they began in the fall semester by continuing to meet in the spring.

The programs finished strong with each department or division holding a celebratory end-of-year gathering designed by the head mentors of their programs. Students from the engineering division met in the Marlo Room and enjoyed a variety of snacks and ice cream treats while mentor-mentee pairs painted small canvases



depicting their time together. These paintings will be displayed in the Acopian Engineering Center.

The computer science department held an ice cream social on a windy afternoon on the Anderson Courtyard and celebrated the conclusion to the semester while playing lawn games. The psychology department held an afternoon of fun competition that had mentor-mentee trios matched against one another in games such as "Minute To Win It" and "Psychology Jeopardy."



Psychology peer mentors and mentees play a round of "Minute to Win It."

The Hanson Center assessed these yearlong peer mentor programs and the responses from mentors and mentees alike were overwhelmingly positive! As one mentee described: "Overall, I am very grateful for my mentor. They were very helpful and reassuring when things like course selection and career planning seemed daunting. I felt like I had a much stronger grasp on navigating resources than friends of mine who did not have a mentor to guide them." If your department would like to partner with the Hanson Center on a peer mentor program, please contact us.



Department Climate Studies

As part of our mission as a research and praxis center, the Hanson Center conducts climate studies of STEM departments and programs. Our climate study work provides a powerful avenue to partner with departments and programs to deepen adoption of inclusive pedagogies, practices, and curriculum. Throughout each study we celebrate what is being done well and develop action steps for what can be improved. The findings from the climate studies have stimulated rich conversations about specific teaching practices and curricular changes that contribute to more inclusive and equitable educational experiences for our students.

This spring we conducted a climate study for the Electrical and Computer Engineering Department and discussed the findings with the department as they developed their action plan. We held a town hall in February to share with students the findings of the Chemistry Department's climate study and then conducted focus group discussions at the end of the semester to dive deeper into the study's findings. We also engaged with students majoring in Civil and Environmental Engineering to describe the findings of their department's climate study along with action steps, and invited students to provide additional feedback. We thank these departments for their engagement and partnership. If you would like to have the Hanson Center conduct a climate study of your department during the 2023-24 academic year, please let us know.

Summer Program to Advance Leadership in STEM (SPAL)

We are gearing up to welcome the 2023 cohort participating in the Summer Program to Advance Leadership in STEM (SPAL), a terrific group of talented students who demonstrate great promise for success in STEM. Through our strength-based program we



help incoming first-year students hit their stride early in their Lafayette education and acquire the skills and guidance important to becoming leaders in STEM fields.

We are excited to announce that Dr. Ernest Nkansah-Dwamena will be the Faculty Director of SPAL this summer. Dr. Nkansah-Dwamena is an assistant professor of Environmental Studies who brings an infectious passion for leadership development for our students. Ms. Millie Smith '10, Academic Project Coordinator, continues as our SPAL Project Coordinator extraordinaire. We are delighted that Dr. Chris Phillips, professor and head of English, will also be joining "Team SPAL" by teaching the writing seminar, and that Dr. Mark Mancuso, visiting assistant professor of Mathematics, returns as the instructor for Calculus. Seven faculty will be teaching STEM modules and other faculty, along with a number of administrators, will be contributing to the co-curricular program of SPAL.

Many thanks to all the members of the Lafayette community who contribute to the success of this signature Hanson Center program! We are grateful for the guidance and support from our wonderful colleagues who serve on the <u>Hanson Center Advisory Committee</u>—thank you!

Don't forget to follow the Hanson Center on <u>Instagram</u>, <u>LinkedIn</u>, and <u>Twitter</u>.

Wishing you a restful and rewarding summer.

The Hanson Center for Inclusive STEM Education

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