Hostos Community College | CUNY

Natural Sciences Department

OPEN HOUSE

SCIENCE WEEK

WELCOME TO OUR HOUSE

NOVEMBER 18 – 22

A-507

Hostos Research Center | C-130

Fall 2024

Chair Welcome Message

The **Natural Sciences Department (NSD)** invites the Hostos community to join us in **celebrating** the **2024 Science Week – Open House**. The exciting list of events include Teach-in activities, Conversations with STEM Alumni, Student Research Presentations and Robotics Exhibition, Hostos STEM Olympiad, Science Games, and our keynote speaker presentation on Cancer Research, Awareness, and Wellness in the Bronx. Our NSD mission, aligned with the College mission, is to provide high quality educational programs in Science, Engineering, and Forensic Science as well as support for Associate in Applied Science (A.A.S.) degree, Allied Health Science and Liberal Arts programs. In today's world it is crucial for everyone to have basic scientific knowledge and the skills to understand what is happening around us, and to be able to make informed decisions for the benefit of all. Thus, NSD assists students in developing the ability to analyze the mechanics of the natural and physical environment, learn to think critically, communicate effectively, cultivate an understanding of basic scientific and ethical values, and become responsible citizens of the world. Let's get immersed in the **NSD 2024 Sciences Week – Open House** and enjoy the fascinating world of science and discovery!

Dr. Yoel Rodríguez
Professor and Chairperson
Engineering Program Coordinator

Keynote Speaker

Dr. Bianca Rivera Peña is the **Program Manager for the Bronx Oncology Living Daily (BOLD) Program** at the Montefiore Einstein Comprehensive Cancer Center, where she works to advance cancer health equity in the Bronx through community outreach. She completed postdoctoral training as an NIH T-32 Fellow and NIH-IRACDA Scholar at Albert Einstein College of Medicine, specializing in cancer translational research in Hematology/Oncology. Dr. Rivera Peña holds a PhD in Biology, with a focus on Cancer Biology, from the University of Puerto Rico, Río Piedras. Her research bridges basic science and clinical applications, with a focus on personalized cancer treatments, genomic profiling, and identifying biomarkers for early detection and prognosis, particularly to address health disparities in minority populations. Dr. Rivera Peña has mentored students at various levels, including underrepresented minorities, through programs like the CUNY Research Scholars Program. She has received several honors, including the Young Investigator Scholarship Award from the Society of Hematologic Oncology and the ASH Achievement Award. Her work has been published in top scientific journals and presented at major conferences. Dr. Rivera Peña is committed to advancing cancer research, improving health equity, and promoting effective, innovative treatment strategies for underserved communities.

Bianca Rivera-Peña, PhD
Project Manager
BOLD Cancer Wellness/Psychosocial Oncology Program Montefiore Einstein Comprehensive Cancer Center

Science Week - Open House

AGENDA

Wednesday, November 20, 2024

Hostos Research Center | C-130

11 am Opening Remarks
Provost Shiang-Kwei Wang, PhD Natural Sciences Department Team and *Dr. Yoel Rodríguez – Chairperson, Natural Sciences Department*

11:10 am Keynote Presentation *Bridging Science and Community: Advancing Cancer Research, Awareness, and Wellness in the Bronx* *Dr. Bianca Rivera Peña Montefiore Einstein Comprehensive Cancer Center*

12:30 pm STEM Student Research Presentation and Robotics Exhibition
CSTEP-CRSP-LSAMP Students

2:00 pm STEM Conversation – Internship Experiences
Sor Bello Meléndez, Environmental Engineering Jose A Keppis, Environmental Engineering John Santana, Mechanical Engineering Kobe Jacobs, Electrical Engineering

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- **Hostos STEM Olympiad | Tuesday, Nov 19 | 2 pm**
- **Teach-in and Open Labs | Week of Nov 18**

PROGRAM Teach-in | Open Lab Activities

Monday, November 18, 2024

Acids, Bases, and pH
Introduction to Chemistry Lab CHE 110 308A*
In Person | A-520 | 11 AM - 12:40 PM | Prof. Allison Franzese, PhD
*Students will be performing a lab experiment in which they will react magnesium metal with acid, producing hydrogen gas, creating bubbles. Visitors may watch, but not participate. Anyone in attendance will need safety glasses

Waste Management in New York City: Challenges and Opportunities

Environmental Sciences ENV 110 701A
In Person | A-425A | 5:30 PM - 6:45 PM | Prof. Nelson Nuñez-Rodríguez, PhD

Tuesday, November 19, 2024

Blood Typing
Principles of Biology Lab BIO 111 209A
In Person | A-521A | 9:30 AM - 11:20 AM | Prof. Susana Alvarado, MS

Student Presentations
Anatomy and Physiology I BIO 230 40194 | Not Open to Public
Online| 9:30 AM | Prof. Maria Inda García, PhD

Experimental Determination of the Gas Constant
General Chemistry I CHE 210 509A*
In Person | A-513 | 2 PM - 3 PM | Prof. Allison Franzese, PhD
*Students will be performing a lab experiment in which they will react magnesium metal with acid, producing hydrogen gas, creating bubbles. Visitors may watch, but not participate. Anyone in attendance will need safety glasses.

The Microscope
Microbiology BIO 310*
In Person | A-408 | 3 PM - 7 PM | Prof. Soheli Chowdhury, PhD
Prof. Jennifer Sabour, MS, CLT Ewa Dziobak-Gonc
*Students will observe various types of bacteria, including *E. coli, Bacillus subtilis, and Mycobacterium pheli*, under the microscope.

PROGRAM Teach-in | Open Lab Activities

Wednesday, November 20, 2024

Noise Pollution in NYC
General Physics II PHY220 | 215A
Online | 9:30 AM - 10:45 AM | Prof. Biao Jiang, PhD

Student Presentations on Current Events on Science
General Biology I BIO 220WI | 210A* | Not Open to Public
In Person | A-526 | 9:30 AM - 10:30 AM | Prof. Amanda Bernal-Carlo, PhD
*Students in the BIO 220WI will do short presentations about an article of interest on any topic on evolution.

Botanicals as Antiviral Agents
Online presentation: http://www.dushenkov.com/research.html
All day | Prof. Vyacheslav Dushenkov, PhD

STEM Hands-on Activities and Tabling
Science-Geoscience-Physics-Robotics Clubs
In Person | Entrance of HRC C-130 | 10 AM - 11 AM and 12 PM- 2 PM
Prof. Anna Ivanova, PhD, Prof. Biao Jiang, PhD, Prof. Allison Franzese, PhD, Prof. Yoel Rodríguez, PhD

Cracking the Case: Forensic Science Insights from CUNY experts and Faculty
In Person | FDR | 11:00 AM - 3 PM | Prof. Anna Manukyan, PhD

Peers in Action | Physics Contest
General Physics I PHY 210 | 215 A
In Person | A-534 | 3 PM - 4 PM | Prof. Yoel Rodríguez, PhD

Photosynthesis Lab
General Biology I BIO 210
In Person | A-526 | 5:30 PM | Prof. Irina Grishina, PhD

Carbon, Climate Change, Ramifications
Microbiology I BIO 310 710A
In Person | A-408 | 5:45 PM - 6:30 PM | Prof. Julie Trachman, PhD

PROGRAM
Teach-in | Open Lab Activities

Thursday, November 21, 2024

Essential Oil Effectiveness Against Fungal Spoilage on Fruits
Independent Studies in Biology BIO 299 | 200A
In Person | 2 PM - 3 PM
Prof. Marcia Ribeiro, PhD, Alyssa Díaz, AS

Lab Activities "pH of Household Water"
Introduction to Chemistry CHE 110 | 216A
In Person | A-520 | 11 AM | Not Open to Public
Prof. Sharmila Shakya, MS

Hydroponic Systems for Teaching and Research
Hostos Hydroponic Laboratory
In Person | A-514 | 10:30 AM - 12 PM
Prof. Flor Henderson, PhD, CLT Karin Contreras, Zion Lyndersay, AS

Friday, November 22, 2024

Exploring STEM Internships
LAS AS Workshops and Presentation Series – Student Presentation
Online | 12:30 PM
Meeting ID: 837 0988 8651 | Passcode: 722785
Prof. Anna Ivanova, PhD

CONTRIBUTE

- To make a gift to benefit **students** attending **Hostos Community College**, please visit **www.givetohostos.com**

- To make a gift to benefit the **Natural Sciences Department** specifically, please contact Idelsa Méndez at **imendez@hostos.cuny.edu** or **718.518.4341**

The Natural Sciences Department thanks the Office of the President, Office of Academic Affairs, Hostos Research Center, Communication Office, National Science Foundation, Campus Operations, STEM Clubs, Institutional Advancement, Office of Student Activities, Student Government Association. Thank you all for your support!