

Chicago State University

Department of Biological Sciences & Pre-Health Professions Programs

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Undergraduate Program Newsletter

Chairperson's Corner (Dr. Joyce Ache Gana)



Welcome to the 2019-2020 academic year in the undergraduate program! In this edition, you will find many student accomplishments as well as participation in events and activities during the past academic year. In October, seven students won the competitive merit-based Scheinbuks Scholarship sponsored by the late Dr. Julian Scheinbuks, who upon his death in 2010, gifted one million dollars to the University (page 2). Dr. Paul Musial (Professor of Mathematics) and I took a group of students on an enlightening field trip to the Metropolitan Water Reclamation District of Greater Chicago. Students' jaws dropped observing the massive operations that protects Chicago's waterways. In February, five students won awards for their research presentations at the STEM conference in Lisle, IL. To build community among students, the department organized the first Biology Jeopardy Game Hour; students said they enjoyed the competition and congeniality with each other. In March, many students participated in the Campus Prairie Burn, an event that was last conducted in 2010. In April, as a part of the Earth Week Celebration, the Biological Society, volunteers, administrators, and faculty worked alongside with the Openlands Non-Profit Organization planting 19 donated native species trees around the prairie. Also, the Biological Society organized a successful plant sale with plants grown in the CSU greenhouse. In June, Dr. Botanga took three students (Aide Balcazar, Bailey Holifield, and Ashley Walker) to attend and present their research at the 2019 International Undergraduate Research Symposium at the University of Belgrade, Belgrade, Serbia. We highlighted one of our alumni, Leticia Meza, who is pursuing Ph.D. at the University of California, Riverside (Page 3). We extend our congratulations to the students who graduated with a B.S. in Biology this past academic year (page 2). I extend my profound gratitude to the dedicated faculty and staff who work tirelessly to ensure student success. Our department strives to provide a warm, welcoming, and inclusive environment to all. Please take advantage of all the opportunities that we offer in the department and the university. Like uncovering a different layer of onions, we are here to uncover many of your layers with empowered technology driven knowledge and skillsets that will propel you to the next phase of your professional journey. Together, let's make this new academic year more productive than the last year.

Announcements

- ◆ Graduation application deadline **September 27, 2019**.
- ◆ Apply to Scheinbuks Scholarship. The deadline is **September 13, 2019** at 4:00 pm. The requirements are a minimum cumulative grade point average of 3.0, completed one full semester at CSU, participant in university activities, and have not received the award more than once. For additional information, please contact Dr. Andrew Maselli, amaselli@csu.edu for further information.
- ◆ Apply to the CSER Scholar Program for paid research opportunities with a faculty mentor. Please contact Dr. Christopher Botanga, cbotanga@csu.edu for further information regarding how to qualify to participate in this program.
- ◆ Explore opportunities provided by the Chicago Area Health & Medical Careers Program (C.A.H.M.C.P.s) which includes prep classes for graduate and professional exams (MCAT, PCAT, DAT, GRE) and network with physician shadowing volunteer programs. Please contact Dr. Melvin Daniels, mdanie25@csu.edu for further information regarding how to qualify to participate in this program.
- ◆ Participate in Biological Science Clubs: Alpha Epsilon Delta (Pre-Health Honor Society, Biological Society, M.A.P.S, Tri-Beta (Honor Society).
- ◆ Become a Learning Assistant. Learn about modern, innovative instruction and then assist faculty in their courses to facilitate collaborative learning and help other CSU students develop deep understanding of the material and be compensated. To apply please visit <http://msscsu.wixsite.com/csu-la-program>. Contact Dr. Mel Sabella, msabella@csu.edu.
- ◆ Follow the department on social media : Twitter (@ChicagoStateBio), Instagram (chicagostatebio)

Awards

Dr. Julian Scheinbuks Scholarship



Dr. Julian Scheinbuks was a part of the Department of Biological Sciences faculty at CSU from 1989-2003. His great love was teaching and working with students. He taught various biology courses for 13 years. In 2003, he was appointed the Director of Distance Learning. Under his leadership, a small and developing operation was transformed into a successful department within the Library and Instruction Services. Upon Dr. Scheinbuks passing, he donated \$1 million dollars towards student scholarships for the department. As a memorial to Julian, the campus community has planted a native burr oak tree. A leaf from that tree is the symbol of the Scholars program. Every year, the department gives scholarships to students through an application process, applicants are awarded based on academics and service.

Scheinbuks Scholarship Recipients 2018-2019

(Pictured below from Left to Right) Ebunoluwa Olapo, Amber Hanson-Dansby, Lenedra Dawson, Bailey Holifield, Andriana Malone, Kayla Mensah



Scholarship recipients posing with the Scholarship Reception speaker, Dr. Narayanan 'Bobby' Kasthuri, University of Chicago

CONGRATULATIONS GRADUATES!



Fall 2018

Darlana Pegues

Gradasha Polin

Spring 2019

Kristen Gardner
Candice Humphrey
LaQuita Welch

Summer 2019

Student Presentations at Scientific (S.T.E.M.) Meetings 2018-2019



Dawson, L. & Maselli A. (2019) Fusing an Activated Actin Binding Protein Fragment with the Red Fluorescent Protein to facilitate Hirano Body Observation in a Live Cell Model. Poster Presentation. 2019 Spring Symposium in STEM, NSF and Department of Education, Lisle, Illinois.

Ebunoluwa Olapo & Maselli, A. (2019) Developing a fixation Protocol For Scanning Electron Microscopy (SEM) of *Mus musculus* skin. Poster Presentation. Spring Symposium in STEM, NSF and Department of Education, Lisle, Illinois.

Balcazar A., Holified B., & de la Sancha N. (2019) Using mitochondrial cytochrome b gene (cyt-b) as a barcoding tool to improve biodiversity patterns in tropical rainforest of Ivory Coast. Poster Presentation. Spring Symposium in STEM, NSF

and Department of Education, Lisle, Illinois.

Mensah K. & Mardis K. (2019) Drug repurposing utilizing bioinformatics on an online learning platform. Poster Presentation. Spring Symposium in STEM, NSF and Department of Education, Lisle, Illinois.

Testimonial



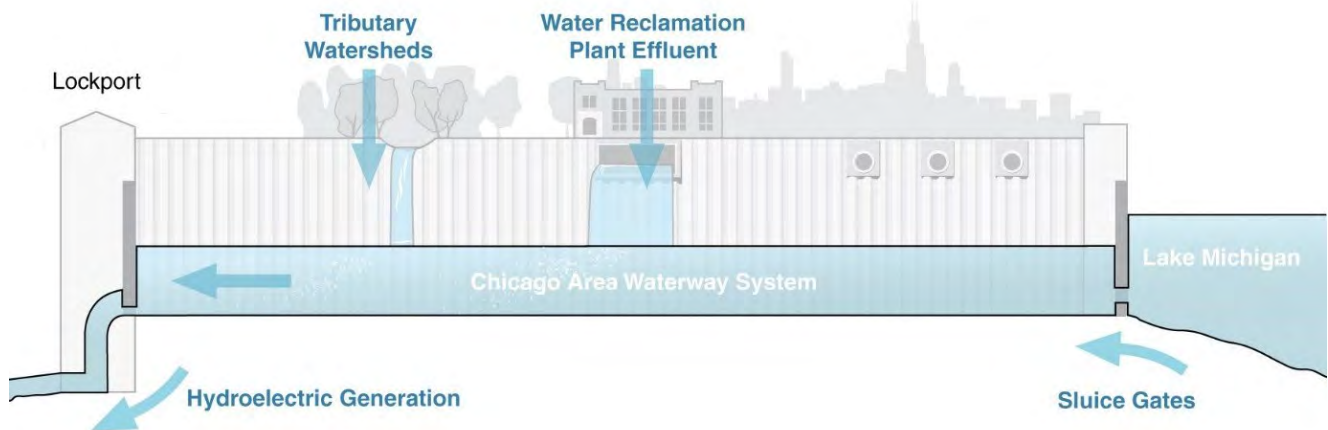
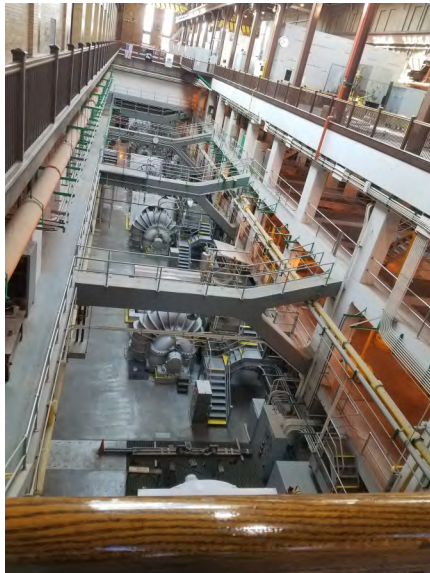
“As I enter into another chapter in my academic career, Chicago State University remains to be a supportive and essential ingredient to my success. I am in my third year of my PhD program at a world-renowned Plant Science program, and the unwavering support from CSU faculty has truly sustained my strength and motivation. Defined by my experience at CSU, my long-term goals are to enter into professorship at a minority serving institution and start an agricultural consulting company that bridges the public, private and academic sector to aide growing economies around the world. This is not an easy road, but I believe the academic, social and educational preparation I received at CSU, as well as the research opportunities through programs such as LSAMP and RISE-MBRS, has placed me in the position to receive a prestigious National Science Foundation Graduate Research Fellowship, build scientific collaborations here and abroad and offer my family unique worldly opportunities. In two weeks, I will be relocating abroad with my two daughters to conduct research for one year at the Institut National de la Recherche Agronomique (INRA) in Bordeaux, France. INRA is the epicenter for agricultural science in Europe and I will study the microbial dynamics of diseased grape crops. While I may no longer be in the halls of CSU, it lives in my heart and mind as I know that CSU has provided me access to the best human and academic resources and opportunities. “

Leticia Meza, graduated Cum Laude from CSU in 2016 with a B.S. degree in Biology



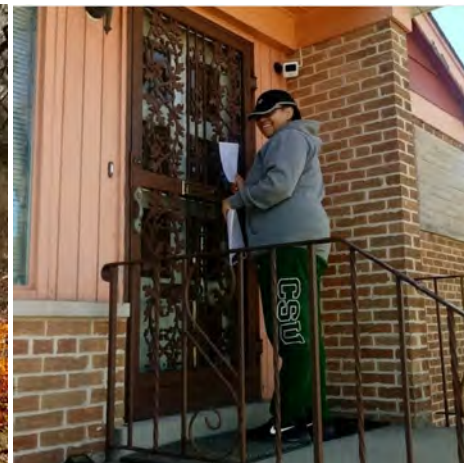
Metropolitan Water Reclamation District of Greater Chicago Field Trip

October 2018



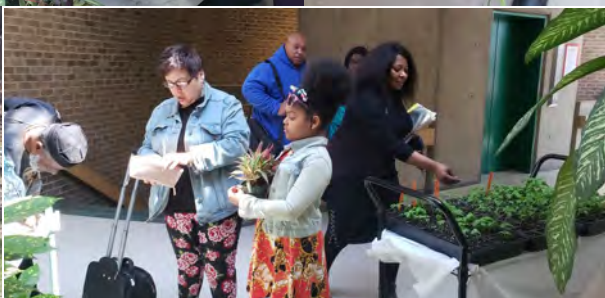
Department of Biological Sciences' Annual Prairie Burn

March 2019



Earth Week Celebration featuring Tree Planting (Trees Donated by Openlands) and Greenhouse Plant Sale

April 2019



**BIOLOGICAL SOCIETY
CSU EARTH WEEK**

Saturday 13th 9 AM - 12 NOON
Prairie Garden
*Planting Trees donated by Openlands around the CSU Prairie.

Tuesday 16th 12:30 PM - 2:00 PM
WSC Green House
Green House Spring Cleaning Sale!
*Tropical plants, annual flowers, spider plants, herbs, vegetable plants are on sale.....

Friday 19th 10:30 AM
Join us at the Boxcar
*Celebrating Arbor Day with Annual tree ceremony
*Memorial Tree Planting

Monday 22nd - HAPPY EARTH DAY!

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Dr. Christopher Botanga and students in the International Undergraduate Research Symposium, May 2019, Sponsored by CSER, Serbia



Summer 2019 Research Program TILT at CSU with Dr. Melvin Daniels, Funded by C.A.H.M.C.P.s

Summer 2019 Research ISRTP Program at CSU with Drs. Mark Erhart, Andrew Maselli and Dr. Kevin Swier Funded by CSER Grant



High School Visitation to the Department organized by Retired Professor, Dr. Laurie Walters



What are some of our most recent graduates doing?

Eric Madu: Fall 2019: One year Masters in Health Sciences Program with the goal of entering medical school in the Fall 2020. Meharry Medical College.

LaQuita Welch: Fall 2019: Masters' in Health Sciences. Benedictine University.

Created By: Biological Sciences Office (Graduate Student Chanel Norphlet and Dr. Joyce Ache Gana)

Biological Sciences



Bachelors of Sciences – Biology

College of Arts and Sciences • Department of Biological Sciences

Degrees Available at CSU: Bachelor of Sciences • Biology

The Department of Biological Sciences at Chicago State University provides our diverse student population with a rigorous broad biology curriculum that prepare students for professional careers, graduate work or employment in entry-level jobs in any desired field of life sciences. Our flexible course options allow greater access for working students. Our highly trained and dedicated faculty involves undergraduate students in their research program.

Admission Requirements:

Students seeking admissions must apply through the Admissions Office and meet with the Biology Department Undergraduate Advisor. Transfer students must complete the same procedures through the Admissions Office. All incoming Freshmen **must** take Placement Exams. Start your admissions application through this link. <https://www.csu.edu/admissions/howtoapplynow.htm>

Sample Four-Year Curriculum

Fall Year 1 FRSE 1600 – Freshman Seminar ENG 1230/1270 – Composition I MATH 1200 – College Algebra CHEM 1400 and 1410 – General Chemistry I w/lab BIOL 1710 – Introduction to Biology Lecture and Lab Total	Credit hours 1 3 3 4 4	Spring Year 1 BIOL 1600 – Intro to Biology Professions ENG 1240/1280 – Composition II MATH 1210 – Algebra and Trig CHEM 1450 and 1460 – General Chemistry II w/lab Oral Communication Total	Credit hours 1 3 3 4 3
Fall Year 2 Foreign Language I MATH 1410 or 1415 – Calculus CHEM 2400 and 2410 – Organic chemistry I w/lab ZOOL 2040 – Biology of Animals Total	3 4 4 4 15	Spring Year 2 Foreign Language II MATH 1600 – Basic Probability and Statistics CHEM 2450 and 2460 – Organic chemistry II w/lab BOT 2050 – Biology of Algae, Plants and Fungi Total	3 3 4 4 14
Fall Year 3 PHYS 1510 – General Physics I BIOL 3040 – Genetics Fine Arts Elective Social Science Elective I General Elective 2000 level or higher Total	4 4 3 3 3 17	Spring Year 3 PHYS 1520 – General Physics II BIOL 3051 – Cell Biology Humanities Elective Social Science Elective II Total	4 4 3 3 14
Fall Year 4 BIOL 3072 – Ecology BIOL elective – 3000 level or higher BIOL elective – 4000 level or higher Social Science Elective III Total	4 4 4 3 15	Spring Year 4 BIOL 4801 - Capstone BIOL elective – 3000 level or higher BIOL elective – 4000 level or higher General Elective 2000 level or higher Total Total Degree Credit Hours	4 4 4 4 16 120

****Please note: At least 120 credit hours are required from the University to receive an undergraduate degree. All students must fulfill the Biological Sciences Department requirements and the University's requirements to complete their degree. ****

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<https://www.csu.edu/bioprehealth/>