

WANTED: Science Research Students

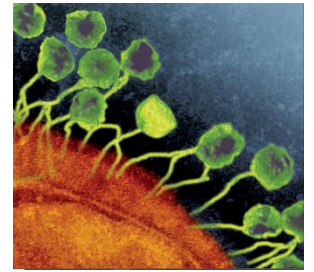
Are you...

- ☐ A **freshman/ non-major/ high school dual credit / any health program major/ Bio major/ Chem major?**
- ☐ Looking to be part of **an exciting, innovative, and application-oriented Biology/ Life Sci. Research project?**
- ☐ Wishing to **make a difference in the field of drug discovery, healthcare, or industry?**
- ☐ Interested in **presenting at a national/ international conference?**
- ☐ Looking to **increase your chances of earning national level scholarships?**
- ☐ Aiming to seek **authorships in peer reviewed International Science journals?**
- ☐ Wanting to **join a community** of like-minded students at MCC, UNO, UNL, Nationwide, and Internationally?

Look no further

Enroll in MCC's **HHMI Sponsored SEA-PHAGES** program!

- The MCC Biology department is partnering with HHMI (Howard Hughes Medical Institute, Chevy Chase, MD) to conduct their prestigious phage discovery and genome annotation program **SEA-PHAGES** (**S**cience **E**ducation **A**lliance – **P**hage **H**unters **A**dvancing **G**enomics and **E**volutionary **S**cience); starting from the Fall of 2023.
- Provide CURE (Course-Based Undergraduate Research Experience) in Biology at a community college; thereby enhancing undergraduate STEM (science, technology, engineering and mathematics) research options in Nebraska and promoting diversity, inclusion, equity in STEM education.
- This program is a three-quarter long, hands-on laboratory course at MCC campus. As a part of the Phage Discovery component, bacteriophages/ phages (viruses that infect bacteria) will be discovered, characterized, and isolated from local environmental sources. The isolated phages will be purified and amplified in the laboratory. Following the Phage Discovery component, in the Phage Genomic component, the genomes of the purified and amplified phages will be mapped, annotated and finally submitted to HHMI's phage database. Students will be mentored to participate and/or present their work at SEA-Symposium at the national level hosted by HHMI's SEA Team.
- Discoveries made in the program will be submitted as scientific reports to peer reviewed Science/ Biomedical journals for publication. Students will remain involved with preparing manuscripts and editing work as part of their course participation and research training.



METROPOLITAN
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SEA  PHAGES

hhmi

Howard Hughes
Medical Institute

Questions or want to register?

Contact the Instructors:

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What will I do?

MCC students who enroll in MCC's HHMI sponsored SEA-PHAGES program will participate in a 2-3 ECH credit worth (for each quarter) laboratory course throughout the 2023-2024 academic year spanning Fall, Winter, and Spring quarters.

As a participating student, you will have the opportunity to engage in a variety of research and professional activities:

- Learn handling bacteriophages and bacterial samples using aseptic techniques along with basic laboratory techniques.
- Assist the instructor and your classmates in collecting indoor and outdoor environmental samples required for isolating phages.
- Visit the UNMC Electron Microscope Core Facility to understand how electron micrography will be used to take phage images and characterization.
- Learn basics of Bioinformatics and operation of different software and computer programs for phage genome sequencing, mapping, and annotation.
- Work with faculty mentor – observe, assist, and learn first-hand about performing well designed experiments, collecting, and analyzing data.
- Engage in writing reports and drafting manuscripts for publication.
- Participate and present posters, oral reports at SEA-PHAGES annual symposium.
- Network with a consortium of like-minded student body and researchers in the region and nationwide who are in the SEA-PHAGES program.
- Enrich your CV, gain transferrable credits for entering numerous competitive health care/ biomedical programs in Nebraska and Nationwide.
- Become eligible and competitive to avail merit-based national and international scholarships.



Metropolitan Community College affirms a policy of equal education, employment opportunities and nondiscrimination in providing services to the public. To read our full policy statement, visit mccneb.edu/nondiscrimination



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