

A National Science
Foundation (NSF) funded
Engineering Research
Center

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Duke
UNIVERSITY



NORTH CAROLINA AGRICULTURAL
AND TECHNICAL STATE UNIVERSITY

NC STATE
UNIVERSITY



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL



UNIVERSITY OF NORTH CAROLINA
CHARLOTTE

Accepted students agree
to be hosted at any
of the above PreMiEr
institutions

Students from
historically under-
represented groups
in STEM are
encouraged to apply

For questions, contact:
premier_erc@duke.edu

Summer Research Experience for Undergraduates May 18th - July 26th, 2025 (10 weeks)

What is Precision Microbiome Engineering (PreMiEr)?

Microbes surround us, and have colonized the structures in which we live, work, and play - spaces collectively known as the *built environment*. Join PreMiEr researchers in the lab as we seek ways to engineer those communities of microorganisms to prevent the growth or spread of harmful organisms and promote beneficial ones to create healthier spaces!

About the Program

- Work alongside leading researchers in engineering, life sciences, computer sciences, and bioinformatics
- Conduct an independent research project and present your findings
- Participate in workshops, seminars, and career development activities
- Gain highly sought-after research skills

Eligibility

- Must be a U.S. citizen or permanent resident
- Full-time undergraduate students at two-year and four-year institutions; Pre-engineering and engineering students are particularly encouraged to apply
- No previous research experience required; hands-on training and mentorship will be provided!
- Have an enthusiasm for science, research, learning, and being able to work as part of a team

Application Details

- Interested applicants can apply through the NSF ETAP portal
- Applications are due by Feb. 1, 2025
- Application includes: 1-page personal statement, 1-page resume, names & contact information of 2 references, current transcript(s)

Areas of Exploration

- Robotics
- Chemical, physical, and UV treatment of microbes
- The use of synthetic biology to engineer healthy microbial communities
- The use of microbially-active cleaners to promote the growth of beneficial microbes and prevent the growth of unwanted microbes

Benefits

- \$5000 stipend + either a full meal plan or supplement equal to the value of a meal plan (depending on host university)
- Housing provided
- Up to \$600 travel allowance for travel to and from the program or for campus parking

