

# LAMPE JOINT DEPARTMENT OF BIOMEDICAL ENGINEERING

## Introduction

The Lampe Joint Department of Biomedical Engineering (BME) is a department of both the University of North Carolina at Chapel Hill (UNC–Chapel Hill) and North Carolina State University (NC State). The department oversees a joint graduate and undergraduate program at these institutions. While a complete curriculum is offered on the UNC–Chapel Hill campus, students can elect to take any number of classes at NC State. The joint program also leverages the industry resources in Research Triangle Park, located roughly half way between the two campuses, providing unique opportunities for students.

Biomedical engineering is a profession that develops and applies engineering knowledge and experience to solve problems in biology and medicine and to enhance health care. Biomedical engineers are professionally trained to combine the rigors of medical and biological studies with the power of engineering analysis and design. People become biomedical engineers to be of service to others, to enjoy the excitement of understanding living systems, and to use state-of-the-art science and technology to solve the complex problems of medical care. The emphasis in biomedical engineering is on finding solutions by researching, testing, and applying medical, biological, chemical, electrical, and materials engineering approaches. Biomedical engineers are unique individuals who make contributions to health care that are both satisfying to themselves and beneficial to others.

## Facilities

The Lampe Joint Department of Biomedical Engineering houses undergraduate teaching laboratories in Phillips Hall and design laboratories in Mary Ellen Jones. These laboratories house a variety of mechanical and electronic fabrication tools as well as laboratories dedicated to cell culture and microbiology. The BeAM Makerspace facilities are available to all UNC students, and these facilities house a variety of mechanical and electronic fabrication tools. More information is available at the UNC BeAM website (<https://beam.unc.edu/>).

## Graduate School and Career Opportunities

Many students from this program have pursued further education in graduate school in biomedical engineering. Our alumni have attended many of the top-ranked biomedical engineering programs. In addition, some students have pursued graduate degrees in other disciplines in engineering, as well as related fields such as microbiology, sports physiology, public health, and business/engineering management, among others. Students have also been accepted into clinical programs such as medical, dental, physical therapy, and pharmacy schools (in many cases, the student must take several additional courses to meet the requirements for clinical programs).

For those interested in going directly into a career, biomedical engineering is one of the fastest growing career opportunities. Graduates are employed by hospitals, pharmaceutical companies, medical device and testing companies, government agencies, universities, and medical schools.

### Major

- Biomedical Engineering Major, B.S. (<https://catalog.unc.edu/undergraduate/programs-study/biomedical-engineering-major-bs/>)

### Graduate Programs

- M.S. in Biomedical Engineering (<https://catalog.unc.edu/graduate/schools-departments/biomedical-engineering/>)
- Ph.D. in Biomedical Engineering (<https://catalog.unc.edu/graduate/schools-departments/biomedical-engineering/>)

### Courses

- Biomedical Engineering (BMME) (<https://catalog.unc.edu/courses/bmme/>)

## Department Chair

**Paul Dayton**

## Associate Chairs

**Lianne Cartee**, Associate Chair for Education

**Shawn Gomez**, Associate Chair for Research

## Directors

**Lianne Cartee**, Director of Undergraduate Studies

**Matthew Fisher**, Director of Graduate Studies

## Associate Director

**Naji Hussein**, Associate Director of Undergraduate Studies

## Distinguished Professors

**Lianne Cartee**, Alumni Distinguished Undergraduate Professor

**Paul Dayton**, William R. Kenan Jr. Distinguished Professor

**Greg M. Forest**, Grant Dahlstrom Distinguished Professor

**Harvinder Gill**, Ronald B. and Cynthia J. McNeill Term Professor

**He (Helen) Huang**, Jackson Family Distinguished Professor

**H. Troy Nagle**

**Roger Narayan**

**Koji Sode**, William R. Kenan Jr. Distinguished Professor

**George (Rick) Stouffer**, Ernest and Hazel Craig Distinguished Professor

## Professors

**Lianne Cartee**

**Michael Daniele**

**Paul Dayton**

**Greg M. Forest**

**Caterina Gallippi**

**Harvinder Gill**

**Shawn Gomez**

**Helen Huang**

**Leaf Huang**

**Derek Kamper**

**Weili Lin**

**Scott Magness**

**H. Troy Nagle**

**Roger Narayan**

**J. Michael Ramsey**

**Koji Sode**

**George (Rick) Stouffer**

**David Zaharoff**

## Associate Professors

Rahima Benhabbour  
Ashley Brown  
Yevgeny Brudno  
Jacqueline Cole  
Bob Dennis  
Brian Diekman  
Kenneth Donnelly  
Uzay Emir  
Oleg Favorov  
Matthew Fisher  
Jason Franz  
Donald Freytes  
Michael Gamcsik  
David Hill  
Devin Hubbard  
Naji Hussein  
David Lalush  
Jeffrey Macdonald  
Ross Petrella  
Gianmarco Pinton  
Nitin Sharma  
Mark Tommerdahl  
Anka Velea  
Bruce Wiggins

## Assistant Professors

Amy Adkins  
Wen Yih Aw  
Joseph Burclaff  
Silvia Ceballos  
Phillip Durham  
Alon Greenbaum  
Geoffrey Handsfield  
Kennita Johnson  
I-Chieh Lee  
Wesley Legant  
Ming Liu  
Margo MacDonald  
Varun Nalam  
Virginie Papadopoulos  
William Polacheck  
Hayley Richardson  
Francisco Santibanez  
Sarah Shelton  
Cameron Taylor  
James Tsuruta  
Michael Wilkins  
Amol Yadav

## Professors Emeriti

Frank Abrams  
Albert Banes  
Carol Lucas  
J. Michael Ramsey

## Professor of the Practice

Matthew Penny

## Lecturers

Sidhartha Jandhyala  
Nick Jardine

## Contact Information

Department of Biomedical Engineering  
Visit Program Website (<http://www.bme.unc.edu>)

### Chair

Paul Dayton  
[padayton@email.unc.edu](mailto:padayton@email.unc.edu)

### Associate Chair for Research

Shawn Gomez  
[smgomez@unc.edu](mailto:smgomez@unc.edu)

### Associate Chair for Education, Director of Undergraduate Studies

Lianne Cartee  
[lacartee@email.unc.edu](mailto:lacartee@email.unc.edu)

### Director of Graduate Studies

Matthew Fisher  
[mattfish@email.unc.edu](mailto:mattfish@email.unc.edu)

### Associate Director of Undergraduate Studies, Curriculum Advisor

Naji Hussein  
[najihuss@email.unc.edu](mailto:najihuss@email.unc.edu)

### Academic Advisor

Theresa Jones  
[bme\\_advising@unc.edu](mailto:bme_advising@unc.edu)

### Student Services Specialist

Marilyn Catherwood  
[bme\\_student\\_services@unc.edu](mailto:bme_student_services@unc.edu)