

Biomedical Engineering (MS): Non-Thesis Concentration

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Code	Title	Hours
Required courses		9
PHY 503	General Physiology I ^{1,2}	
	or PHY 504 General Physiology II	
MA 501	Advanced Mathematics for Engineers and Scientists I ^{1,3}	
	or MA 502 Advanced Mathematics for Engineers and Scientists II	
	or MA 520 Linear Algebra	
ST 511	Statistical Methods For Researchers I ^{1,4}	
	or ST 515 Experimental Statistics for Engineers I	
BME/BMME Elective Courses ¹		9
Select 510-590-level or 700-level BME courses approved in conjunction with the academic committee		
Technical Elective Courses ¹		9
Select a minimum of three courses. At NC State 500-level or 700-level courses from the following course prefixes: BME/BMME (510 or higher), CHE, CE, ECE, ISE, MSE, MAE, NE or other courses as approved in conjunction with the program advisor. At UNC 400 – 700 level courses as approved in conjunction with the program advisor. BME/BMME courses must be 510 -590 or 700 level.		
Master's Project ⁵		3
BME 581	Quality Management Systems for Engineers ⁵	
	or BME 582 Quality Management Standards for Biomedical Engineers	
	or BME 692 Individual MS Project in BME	
Total Hours		30

¹ Other graduate courses in applied or technical fields at NC State or UNC-Chapel Hill must be approved by the program advisor.

² Alternative course from UNC is BIOL 451 Comparative Physiology

³ Alternative courses from UNC are MATH 528 Mathematical Methods for the Physical Sciences I or MATH 535 Introduction to Probability or MATH 577 Linear Algebra

⁴ Alternative courses from UNC are BIOS 600 Principles of Statistical Inference or BIOS 650 Basic Elements of Probability and Statistical Inference I

⁵ Similar credentials, based on the culmination of coursework that also includes a project will also be considered as substitutes for the Master's Project and exam substitute. Alternates must be approved by the BME Graduate Curriculum Committee. In these cases, students will enroll in BME 692 or BMME 992. Students must earn the credential to complete the requirements for graduation.

Faculty

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 Husseini, *Associate Director of Undergraduate Studies*

Distinguished Professors

Ashley Carson Brown, *Lampe Distinguished Professor*

Lianne Cartee, *Alumni Distinguished Undergraduate Professor*

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

Gregory Forest, *Grant Dahlstrom Distinguished Professor of Mathematics*

Caterina M. Gallippi, *William R. Kenan, Jr. Distinguished Professor*

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

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

Weili Lin, *Dixie Lee Boney Soo Distinguished Professor*

H. Troy Nagle

Roger Narayan

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

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

Professors

Ashley Brown

Lianne Cartee

Michael Daniele

Paul Dayton

Matthew Fisher

Gregory Forest

Jason Franz

Caterina M. Gallippi

Shawn Gomez
H. Troy Nagle Jr.
Derek Kamper
Weili Lin
Scott T. Magness
George (Rick) Stouffer
John F. Muth
David Zaharoff

Associate Professors

Rahima Benhabbour
Yevgeny Brudno
Jacqueline Cole
Bob Dennis
Brian Diekman
Kenneth Donnelly
Oleg Favorov
Donald Freytes
Michael Gamcsik
David Hill
Devin Hubbard
Naji Hussein
David Lalush
Wes Legant
Ming Liu
Jeffrey Macdonald
Adriana San Miguel
Virginie Papadopoulou
Matthew Penny
Ross Petrella
William Polacheck
Imran Rizvi
Nitin Sharma
Emir Uzay
Anka Veleva

Michael Wiggan

Assistant Professors

Amy Adkins Alvarez
Joseph Burclaff
Melissa Caughey
Silvia Ceballos
Phillip Durham
Alon Greenbaum
Geoff Handsfield
Michael Jay
Kennita Johnson
Jinwook Kim
Margo MacDonald
Varun Nalam
Hayley Richardson
Rinku Roy
Francisco Santibanez
Sarah Shelton
Cameron Taylor
Michael Wilkins
Ian Andrew Williamson
Amol Yadav
Jian Zhang

Lecturers

Kevin R. Grayson
Nick Jardine