# DEPARTMENT OF BIOMEDICAL ENGINEERING

http://engineering.tamu.edu/biomedical (http://engineering.tamu.edu/biomedical/)

Head: M. McShane

Graduate Advisor. D. Alge

The Department of Biomedical Engineering offers several graduate degrees. The PhD and MS programs are research-based and require a thesis, while the MEng degree focuses on preparing students for industry and involves an internship. Through our collaborations with Mays Business School, there is also a Master of Engineering/ Master of Business Administration program. For more information, including degree requirements and application deadlines, visit http://engineering.tamu.edu/biomedical/).

Committed to solving the world's greatest health problems through the exploration of new ideas, integrated research and innovation, the Department of Biomedical Engineering at Texas A&M University is producing the next generation of biomedical engineers in industry and at tier-one research institutions, developing new technologies and new jobs, and achieving revolutionary advancements for the future of health care.

Graduate students in the Department of Biomedical Engineering participate in groundbreaking research in Cancer Engineering, Cardiovascular Engineering, Engineering for Accessible Health, Pediatric Technologies, and Regenerative Engineering while interacting with outstanding faculty members who have strong collaborations with the college of science, medicine and veterinary medicine as well as faculty, medical doctors and industry personnel from around the globe.

# **Doctor of Philosophy**

With this degree option, students complete a minimum of 64 or 96 hours on their degree plans. The total number of hours on the degree plan as well as the required number of hours of formal coursework is dependent upon the student's previous degree(s). As part of this research-intensive degree, students will write and defend a dissertation. A PhD requires a committee of four or more graduate level faculty members, including one faculty to act as the primary adviser for each candidate. Students may enter this program with a master's or bachelor's degree in engineering or an equivalent field. (If the degree is not in engineering, leveling courses may be required.) Students entering with only a bachelor's degree will be required to complete a 96-hour degree plan, and students who have earned a master's degree at a U.S. institution will only be required to complete a 64-hour degree plan.

#### **Master of Science**

Students interested in an MS degree complete a minimum of 30 hours on their degree plans, of which 24 hours is formal coursework. As part of this research-based degree, students are required to write and defend their final thesis. An MS requires a committee of three or more graduate level faculty members, one of which must act as the primary adviser for each candidate. Students admitted into this program must have a bachelor's degree in engineering or an equivalent field (if the degree is

not in engineering, leveling courses may be required). Students with the ultimate goal of pursuing a PhD should apply directly to the PhD program.

# **Master of Engineering**

The Department of Biomedical Engineering offers an MEng degree in which students complete a minimum of 30 hours on their degree plans, of which 27 hours is formal coursework. Geared toward industry, students in this degree program are required to complete an internship and final project. Students admitted into this program must have a bachelor's degree in engineering or an equivalent field (if the degree is not in engineering, leveling courses may be required.)

# **ME/MBA Cooperative**

In conjunction with Mays Business School, the Department of Biomedical Engineering offers a MEng/MBA degree that allows students to complete both degrees in approximately 2.5 years. This program prepares students for leadership roles in many areas of biomedical engineering and business with specific MBA training in leadership, management, human resources, team building, communications, marketing, finance, accounting, strategy and technology. The program also allows for an optional self-designed specialization for the BMEN student (may require enrollment in additional semesters). The goal of the BMEN/MBA degree program is to produce leaders in biomedical engineering and business. More specific details about the curriculum and degree timeline can be found here. (https://engineering.tamu.edu/biomedical/academics/degrees/graduate/me-mba.html)

For more information, including degree requirements and application deadlines, visit http://engineering.tamu.edu/biomedical (http://engineering.tamu.edu/biomedical/).

#### **Faculty**

Alge, Daniel L, Professor Biomedical Engineering PHD, Purdue University, 2010

Avazmohammadi, Reza, Assistant Professor Biomedical Engineering PHD, University of Pennsylvania, Philadelphia, PA, 2014

Bagnato, Vanderlei S, Professor Biomedical Engineering PHD, Massachusetts Institute of Technology, 1987

Biswas, Saurabh, Professor of the Practice Biomedical Engineering PHD, Texas A&M University, 2011

Carrell, Travis James, Instructional Assistant Professor Biomedical Engineering PHD, Texas A&M University, 2022

Ceylan Koydemir, Hatice, Assistant Professor Biomedical Engineering PHD, MIDDLE EAST TECHNICAL UNIVERSITY, 2013

Chukkapalli, Sasanka S, Research Assistant Professor Biomedical Engineering PHD, Post Graduate Institute of Medical Education & Research (PGIMER) Chandigarh, India, 2009 Cote, Gerard L, Professor Biomedical Engineering

PHD, University of Connecticut, 1990

Criscione, John C, Professor Biomedical Engineering

MD, Johns Hopkins University, 1999 PHD, Johns Hopkins University, 1999

Diaz Garelli, Franck, Instructional Associate Professor

**Biomedical Engineering** 

PHD, University of Texas Health Science Center Houston, 2016

Gaharwar, Akhilesh K, Professor Biomedical Engineering PHD, Purdue University, 2011

George, Jason T, Assistant Professor

**Biomedical Engineering** 

MD, Baylor College of Medicine, 2020

PHD, Rice University, 2019

Gibbs, Holly C, Research Assistant Professor

**Biomedical Engineering** 

PHD, Texas A&M University, 2014

Grunlan, Melissa A, Professor Biomedical Engineering

PHD, University of Southern California, 2004

Hanks, John Philip, Professor of the Practice

**Biomedical Engineering** 

MS, University of Texas, Austin, 1989

Haridas, Balakrishna, Professor of the Practice

**Biomedical Engineering** 

PHD, University of Cincinnati, 2001

Hedman, Annie, Instructional Assistant Professor

**Biomedical Engineering** 

PHD, Texas A&M University-College Station, 2022

Horn, John D, Instructional Assistant Professor

**Biomedical Engineering** 

PHD, Texas A&M University, 2018

Horn, Staci Jessen, Research Assistant Professor

**Biomedical Engineering** 

PHD, Texas A&M University, 2016

Hoyt, Kenneth L, Professor Biomedical Engineering PHD, Drexel University, 2005

Hwang, Wonmuk, Professor Biomedical Engineering PHD, Boston University, 2001

Jain, Abhishek, Associate Professor

Biomedical Engineering PHD, Boston University, 2012

Kaunas, Roland R, Associate Professor

**Biomedical Engineering** 

PHD, University of California at San Diego, 2003

Lele, Tanmay P, Professor Biomedical Engineering PHD, Purdue University, 2002

Ligler, Frances S, Professor Biomedical Engineering

DSC, Oxford University, Oxford, UK, 2000 PHD, Oxford University, Oxford, UK, 1977

Mabbott, Samuel Bernard, Associate Professor

**Biomedical Engineering** 

PHD, University of Manchester, Manchester Interdisciplinary Biocentre,

2012

Maitland, Duncan J, Senior Professor

**Biomedical Engineering** 

PHD, Northwestern University, 1995

McDougall, Mary P, Professor Biomedical Engineering

PHD, Texas A&M University, 2004

McShane, Mike, Professor Biomedical Engineering

PHD, Texas A&M University, 1999

Menon, Jyothi U., Associate Professor

**Biomedical Engineering** 

PHD, University of Texas, Southwestern Medical Center, 2014

Monroe, Mary B, Associate Professor

**Biomedical Engineering** 

PHD, Texas A&M University, 2013

Patrick, Charles W, Professor of the Practice

Biomedical Engineering PHD, Rice University, 1994

Pires, Layla, Assistant Professor Biomedical Engineering

PHD, University of Sao Paulo, 2017

Raghavan, Shreya Artha, Associate Professor

**Biomedical Engineering** 

PHD, Virginia Tech-Wake Forest University School of Biomedical

Engineering and Sciences, 2014

Rahbar, Elaheh, Associate Professor

**Biomedical Engineering** 

PHD, Texas A&M University, 2011

Reynolds, Jeff, Professor of the Practice

Biomedical Engineering PHD, Purdue University, 1996

Tian, Limei, Associate Professor Biomedical Engineering

PHD, Washington University in St. Louis, 2014

Timmins, Lucas, Associate Professor

**Biomedical Engineering** 

PHD, Texas A&M University, 2010

Walsh, Alexandra, Associate Professor Biomedical Engineering PHD, Vanderbilt University, 2015

Ware, Taylor H, Professor Biomedical Engineering PHD, University of Texas at Dallas, 2013

Yakovlev, Vladislav V, Professor Biomedical Engineering PHD, Moscow State University, 1990

Zhao, Feng, Professor Biomedical Engineering PHD, Tianjin University, 2001

#### **Masters**

- Master of Engineering in Biomedical Engineering (https:// catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/ engineering/biomedical/meng/)
- Master of Science in Biomedical Engineering (https:// catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/ engineering/biomedical/ms/)

#### **Doctoral**

• Doctor of Philosophy in Biomedical Engineering (https://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/biomedical/phd/)