

BIOMEDICAL ENGINEERING

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M.S., M.Phil., Ph.D.

Chair

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Associate Professors Fadi Akar,* Stuart Campbell, Julius Chapiro, Tarek Fahmy, Gigi Galiana,* Michael Higley,* Ansel Hillmer,* Chenxiang Lin,* Kathryn Miller-Jensen, Michael Murrell, Dana Peters,* Yibing Qyang*

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* A secondary appointment with primary affiliation in another department or school.

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FIELDS OF STUDY

Biological and medical devices, biological signals and sensors, biomaterials, biophotonics, cellular biomechanics, computational biomechanics, computational medicine, computer vision, digital image analysis and processing, drug delivery, energy metabolism, experimental biomechanics, gene delivery, gene therapy, image analysis, Magnetic Resonance Imaging (MRI), Magnetic Resonance Spectroscopy (MRS), modeling in mechanobiology, molecular biomechanics, nanomedicine, network analysis, neuroreceptors, physics of image formation (MRI, optics, ultrasound, nuclear medicine, and X-ray), physiology and human factors engineering, Positron Emission Tomography (PET), regenerative medicine, signaling pathways, Single Photon Emission Computed Tomography (SPECT), systems biology, systems medicine, tissue engineering, tracer kinetic modeling, and vascular biology.

For degree requirements—including the joint M.D.-Ph.D. in Biomedical Engineering—and courses, see Engineering & Applied Science.