**PHARMACOENGINEERING**
- BMME 485 Biotechnology
- BME 490 Data Science + Machine Learning in Medicine
- BMME 495 Undergraduate Research in Biomedical Engineering
- BME 498 Undergraduate Research in Biomedical Engineering
- BMME 511 Genetic Engineering
- BME 516 Advanced Drug Delivery
- BMME 523 Biomolecular Engineering
- BMME 524 Biomolecular Sensing Technologies
- BMME 527 Engineering Principles in Targeted Photomedicine
- BME 570 Immunoengineering

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**REGENERATIVE MEDICINE**
- BIT 466 Animal Cell Culture and BMME 483 Tissue Engr. Tech.
- BMME 420 Intro to Synthetic Biology
- BMME 429 Cellular Engineering
- BMME 435 Biological Physics
- BMME 448 Functional Tissue Engineering
- BMME 470 Analysis of Tissue Engr. Tech.
- BMME 484 Fund. of Tissue Engineering
- BMME 490 Data Science + Machine Learning in Medicine
- BMME 495 Undergraduate Research in Biomedical Engineering
- BMME 498 Undergraduate Research in Biomedical Engineering
- BMME 511 Genetic Engineering
- TE 463 Polymer Engineering

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**REHABILITATION ENG**
- BMME 405 Biomechanics of Movement
- BMME 418 Wearable Biosensors
- BMME 425 Bioelectricity
- BMME 438 Bone Mechanobiology
- BMME 444 Orthopedic Biomechanics
- BMME 456 Rehabilitation Robotics
- BMME 490 Data Science + Machine Learning in Medicine
- BMME 495 Undergraduate Research in Biomedical Engineering
- BMME 498 Undergraduate Research in Biomedical Engineering
- BMME 499 Undergraduate Research in Biomedical Engineering
- BME 498 Undergraduate Research in Biomedical Engineering
- BMME 511 Genetic Engineering

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**BIOSIGNALS AND IMAGING**
- BME 412 Biomedical Signal Processing
- BME 418 Wearable Biosensors
- BME 425 Bioelectricity
- BMME 461 Intro to Medical Imaging
- BMME 463 Biomedical Optics and Lasers
- BMME 464 Microscopy
- BMME 490 Data Science + Machine Learning in Medicine
- BMME 495 Undergraduate Research in Biomedical Engineering
- BMME 498 Undergraduate Research in Biomedical Engineering
- BME 575 Machine Learning

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**MEDICAL MICRODEVICES**
- BME 412 Biomedical Signal Processing
- BME 418 Wearable Biosensors
- BME 490 Data Science + Machine Learning in Medicine
- BMME 495 Undergraduate Research in Biomedical Engineering
- BME 498 Undergraduate Research in Biomedical Engineering
- BME 522 Medical Instrumentation
- BMME 575 Machine Learning
- E 304 Intro to Nano Science and Tech.
- ECE 436 Digital Control Systems
- ECE 505 Neural Interface Engineering
- ECE 505 Advanced Math for Engineers and Scientists I
- MATH 528 Math. Methods for Physical Scientists and Engineers

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**UNC BIOMEDICAL ENGINEERING UNDERGRADUATE PROGRAM - SPECIALTY ELECTIVES**
BME students take 4 Specialty Electives from one or two areas during their Senior year.