NCSU BIOMEDICAL ENGINEERING UNDERGRADUATE PROGRAM **Sophomores First Years and Sophomores Juniors** Seniors FIS FIS CODA **BME 298 3 GATEWAY** Non-CODA **4 SPECIALTY** Change of Degree Application BME Design I **ELECTIVES ELECTIVES** 315 Biotransport FS From one or two of the 325 Biochemistry FS SF following areas: Need PY 205/206 PY 208/209 **BME 207** Pre-Med: BCH 351 2 **Physics Mechanics** Physics E&M **BME Electronics** 335 Biomaterials FS total Pharmacoengineering 345 Solid Mech. Regenerative Medicine 355 Biocontrols FS Rehabilitation Eng 365 Signals & Syst. FS Biosignals and Imaging MA 141 MA 242 375 Microcontroller FS BME 201 F S/U1 **Medical Microdevices** Calculus I Calculus III 385 Bioinstrument. FS Comp Methods in BME 3 each or **CSC 113** Intro to Computing **BME 398** MA 331 or MA 341 MA 241 **BME 451 MATLAB** Calculus II Differential Equations **BME Design II** Senior Design FS SS BME 205 F/S/U2 CH 201/202 **BME 301** CH 101/102 **BME 452*** OR Human Phys: Electrical **BME Mechanics** General Chemistry I General Chemistry II Senior Design F/S F/S F **BME 302 ENG 101** CH 221/222 **BME 209** Acad Writing & Research Organic Chemistry I Human Phys: Mech Materials Science **STEM Elective** E 101 **BIO 183** Extra Gateway or Specialty Elective or >300 STEM Course Introductory Biology Intro Engineering Must be Engineering Elective if taking BCH 351 as Gateway E 102 **PHI 325 Engr 21st Century Biomedical Ethics** Offered at NCSU or UNC Pre-Requisite F = fallS = springCo-Requisite E 115 **U1** = Summer Session I *BME 452 has the same prerequisite courses as BME 451 with a **Computing Environments Credit Hours** U2 = Summer Session II corequisite of 3 additional Gateway or Specialty Electives.