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<th>Semester I / Fall</th>
<th>Total Credits: 18</th>
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<tr>
<td>MAC 2281/2311¹</td>
<td>Calculus I for Eng. (4)</td>
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<tr>
<td>CHM 1045¹</td>
<td>Gen. Chem. I (3)</td>
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<tr>
<td>BSC 2010¹</td>
<td>Gen. Bio I (3)</td>
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<tr>
<td>SLS 1501</td>
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<tr>
<td>ENC 1101</td>
<td>Writing &amp; Rhet I (3)</td>
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<th>Semester II / Spring</th>
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<tr>
<td>MAC 2282/2312²</td>
<td>Calculus II for Eng. (4)</td>
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<td>PHY 2048¹</td>
<td>Org. Chem. I Lab (1)</td>
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<tr>
<td>BME 1054L</td>
<td>BME Computing (1)</td>
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<td>ENC 1102</td>
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<tr>
<td>MAC 2283/2313¹</td>
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<tr>
<td>PHY 2049¹</td>
<td>Org. Chem. I (4)</td>
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<td>CHM 1046¹</td>
<td>Gen. Chem. II Lab (1)</td>
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<td>CHM 2210¹</td>
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<tr>
<td>MAP 2302²</td>
<td>Diff. Equations (3)</td>
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<tr>
<td>ESI 3215</td>
<td>Eval of Engg Data (3) or (STA 3033) (3)</td>
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<tr>
<td>BME 2740</td>
<td>BME Mod. &amp; Sim. (3)</td>
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<td>Humanities Group One</td>
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<tr>
<td>PHY 2049¹</td>
<td>Org. Chem. I Lab (1)</td>
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<tr>
<td>CHM 2210¹</td>
<td>Org. Chem. I Lab (1)</td>
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<th>Semester VI / Spring</th>
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<tr>
<td>EEE 3110C</td>
<td>Circuits Analysis and lab (4)</td>
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<td>Humanities Group Two</td>
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<tr>
<td>EEE 4510</td>
<td>Intro. to Digital Syst. (3)</td>
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<tr>
<td>BME 4503C</td>
<td>Med. Inst. Design (4)</td>
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<td>Social Science Group Two</td>
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<th>Semester VIII / Spring</th>
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<tr>
<td>BME 4562</td>
<td>Biomedical Optics (3)</td>
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<tr>
<td>BME 4531</td>
<td>Medical Imaging (3)</td>
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<tr>
<td>BME 4050L</td>
<td>BME Lab I (1)</td>
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<tr>
<td>BME 4051L</td>
<td>BME Lab II (1)</td>
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<tr>
<td>BME 4930¹</td>
<td>Undergrad Sem. (0)</td>
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¹ Minimum “C” or better in all Common Pre-requisites AND a combined GPA of a 2.5 in all Common Pre-requisites are required for graduation
² Student’s must complete attendance to ten BME approved seminars throughout the program in order to graduate

NOTE 1: Any student found to be taking any BME course without its prerequisite or co-requisite will be dropped from the course without a refund.

NOTE 2: Transfer and Change of Major students must have a “C” or better in the following courses: MAC 2311, CHM 1045/L, BSC 2010/L, and PHY 2048/L. Students must also have at least a 2.0 overall GPA to transfer or change majors to BME.

OTHER REQUIREMENTS (MUST BE COMPLETED FOR GRADUATION):
- FLENT/FLEX: ______
- 9 Summer Credit Hours: ______
- UCC: ______
- 2.5 Prequisites GPA: ______
- Total Credits: ______

GL1: ______
GL2: ______
WR1: ______
WR2: ______
Civics Literacy: ______

For Reference Only
Check Catalog for complete details
Total Credits for Major: 128
Please see next page for co-reqs & pre-reqs for each course
BIOSIGNALS AND SYSTEMS | PREREQUISITES/COREQUISITES
Bachelor of Science in Biomedical Engineering

COURSES MUST BE COMPLETED WITH COMBINED GPA OF A 2.5
ONLY "C" OR BETTER WILL BE ACCEPTED FOR BELOW COURSES

MAC 2311 Calculus I (4)
  Prereqs: MAC 1147 OR MAC 1140 & MAC 1114
MAC 2312 Calculus II (4)
  Prereqs: MAC 2311
MAC 2313 Multivariable Calculus (4)
  Prereqs: MAC 2312
MAP 2302 Differential Equations (3)
  Prereqs: MAC 2312
BSC 2010 General Biology I (3)
  Prereqs: MAC 2312
PHY 2048 Physics with Calculus I (4)
  Prereqs: MAC 2311
  Coreq: PHY 2048L
PHY 2048L Physics with Calculus I Lab (1)
  Coreq: PHY 2048
PHY 2049 Physics with Calculus II (4)
  Prereqs: PHY 2048 & MAC 2312
PHY 2049L Physics with Calculus II Lab (1)
  Coreq: PHY 2049
CHM 1046L General Chemistry II Lab (1)
  Coreq: CHM 1046
CHM 1046 General Chemistry II (3)
  Prereqs: CHM 1045 & CHM 1045L
CHM 1045L General Chemistry I Lab (1)
  Coreq: CHM 1045
CHM 1045 General Chemistry I (3)
  Prereqs: CHM 1046 & CHM 1046L
CHM 1046 General Chemistry II Lab (1)
  Coreq: CHM 1046
CHM 2210L Organic Chemistry I Lab (1)
  Coreq: CHM 2210
CHM 2210 Organic Chemistry I (4)
  Prereqs: CHM 1046 & CHM 1046L
  Coreq: CHM 2210L

GRADE OF "D" OR BETTER WILL BE ACCEPTED FOR BELOW COURSES

BME 100BC Introduction to BME (2)
BME 1054L BME Computing (1)
BME 2740 BME Modeling and Simulation (3)
  Prereqs: BSC 2010 & BME 1054L
  Coreqs: MAP 2302 & BME 100BC
ESI 3215 Evaluation of Engineering Data I (3)
  Prereq: MAC 2312
STA 3033 Probability and Statistics (3)
  Prereq: MAC 2312
BME 3721 BME Data Evaluation Principles (3)
  Prereqs: STA 3033 OR ESI 3215
BME 3403 Engineering Analysis of Bio Sys I (3)
  Prereqs: PHY 2049 & CHM 2210, BME 2740
BME 3404 Engineering Analysis of Bio Sys II (3)
  Prereq: BME 3403
EGM 3503 Applied Mechanics (4)
  Prereqs: MAC 2312 & PHY 2048
EEL 2110C Circuit Analysis & Lab (4)
  Prereqs: MAC 2312, PHY 2049, PHY 2049L & BME 100BC
  Coreqs: MAP 2302
BME 3632 BME Transport (3)
  Prereqs: BME 2740, EGM 3503, CHM 1046, MAP 2302,
  PHY 2049 & MAC 2313
BME 4503C Medical Instrumentation (4)
  Coreq: EEL 3110C
BME 4011 Clinical Rotations for BME (1)
BME 4503 Medical Imaging (3)
BME 4531 Medical Imaging (3)
  Spring Only
  Prereqs: PHY 2049 & BME 2740
BME 4422 Biophysics of Neurop. Comp. (3)
  Fall Only
  Prereqs: EEL 3110C
BME 4442 Biophysics of Neurop. Comp. (3)
  Spring Only
  Prereqs: PHY 2049 & BME 2740
BME 4211 Orthopedic Biomech. (3)
BME 4260 Eng. Hemodynamics (3)
  Spring Only
  Prereqs: BME 3632 & BME 3404
EGN 3365 Materials in Eng. (3)
BME 4200 Introduction to Mechatronics (3)
  Prereqs: MAC 1145 & PHY 2049
BME 4311 Molecular Engineering I (3)
  Fall Only
  Prereq: BME 3403
BME 4332 Cell and Tissue Eng. (3)
  Fall Only
  Prereqs: MAC 2313, BME 3632 & BME 4100
BME 4230 Biomech of Cardio. Syst (3)
  Spring Only
  Prereqs: BME 3632, BME 3404, BME 4100
BCH 3033 General Biochemistry (3)
  Prereqs: BSC 2010 & BME 1054L
  Coreq: CHM 3120
BME 4507B Medical Imaging (3)
  Prereqs: BSC 2010, CHM 2210 & CHM 2211
  Coreq: CHM 3120L
BME 4562 Biomedical Optics (3)
  Prereqs: PHY 2049 & BME 3403
BME 4531 Medical Imaging (3)
  Spring Only
  Prereqs: PHY 2049 & BME 2740
BME 4422 Biophysics of Neurop. Comp. (3)
  Fall Only
  Prereqs: EEL 3110C
BME 4442 Biophysics of Neurop. Comp. (3)
  Spring Only
  Prereqs: PHY 2049 & BME 2740
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BME 4260 Eng. Hemodynamics (3)
  Spring Only
  Prereqs: BME 3632 & BME 3404
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  Prereq: BME 3403
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  Fall Only
  Prereqs: MAC 2313, BME 3632 & BME 4100
BME 4230 Biomech of Cardio. Syst (3)
  Spring Only
  Prereqs: BME 3632, BME 3404, BME 4100

SCIENCE ELECTIVES (ALLOWED 3 MAX)

CHM 2211 Organic Chemistry II (3)
  Prereqs: CHM 2211L
CHM 3120 Analytic Chemistry (3)
  Prereqs: CHM 2211
CHM 4304 Biological Chemistry I (3)
  Prereqs: CHM 2211 & CHM 2211L
CHM 4307 Biological Chem. II (3)
  Prereqs: CHM 3120
  Coreq: CHM 3304
PCB 3063 Genetics (3)
  Prereqs: BSC 2010
PCB 4023 Cell Biology (3)
  Prereqs: PCB 3063 & CHM 1046
PCB 4908 Physiology (3)
  Prereqs: PCB 3063
PCB 2020 General Microbiology (3)
  Prereqs: CHM 2210, CHM 2211, BSC 2010 & BSC 211
ZOO 3753 Histology (3)
  Prereqs: BSC 2010, CHM 2210 & CHM 2211

ENGINEERING ELECTIVES

BME 4930 Undergraduate Seminar (0)
  Coreq: BME 3632
BME 4908 Senior Design Project (3)
  Prereqs: BME 4100
BME 4930 Undergraduate Seminar (0)
  *The course is considered NGS on FAL
  **Students must enroll for the course

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Department of Biomedical Engineering
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10555 West Flagler Street Suite EC 2610 Miami, FL 33174

Revised: July 2021