**Technical Area/Track 1: Biomedical Imaging and Instrumentation**

<table>
<thead>
<tr>
<th>Fall 3</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BME 221 M</strong> Measurement and Instrumentation Lab</td>
<td><strong>BME 251 M</strong> Biomedical Image, Signal, &amp; Transport Process Lab</td>
</tr>
<tr>
<td>BME 311</td>
<td>BME 343</td>
</tr>
<tr>
<td>BME 113L</td>
<td>BME 314</td>
</tr>
<tr>
<td>BME 365R &amp; 335</td>
<td>CH 369</td>
</tr>
<tr>
<td><strong>BME 343 M</strong> BME Signal and Systems Analysis</td>
<td><strong>BME 348 M</strong> Modeling of BME Systems</td>
</tr>
<tr>
<td>BME 311 &amp; 113L</td>
<td>BME 343</td>
</tr>
<tr>
<td>M 347K</td>
<td>BME 314</td>
</tr>
<tr>
<td>M 427K</td>
<td>BME 314</td>
</tr>
<tr>
<td><strong>BME 365R M</strong> Quantitative Engr. Physiology I</td>
<td><strong>BME 366S M</strong> Quantitative Engr. Physiology II</td>
</tr>
<tr>
<td>BIO 206L</td>
<td>BME 365R</td>
</tr>
<tr>
<td>BME 311</td>
<td>M 353(M)</td>
</tr>
<tr>
<td>BME 314</td>
<td>M 427K</td>
</tr>
<tr>
<td>CH 369</td>
<td>PHY 303L &amp; 103N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall 4</th>
<th>Spring</th>
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</thead>
<tbody>
<tr>
<td><strong>BME 370 M</strong> Principles of Engineering Design</td>
<td><strong>BME 371 M</strong> Biomedical Engineering Design Project</td>
</tr>
<tr>
<td>BME 348 &amp; 251</td>
<td>BME 370</td>
</tr>
<tr>
<td>BME 353</td>
<td>BME 335</td>
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<tr>
<td>BME 3655</td>
<td><strong>BME 370</strong></td>
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</tbody>
</table>

**Imaging and Instrumentation Technical Electives:**

*Must choose two from the following for a total of six hours:*

<table>
<thead>
<tr>
<th>Fall Only</th>
<th>Fall Only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BME 357 T</strong> Biomedical Imaging Modalities</td>
<td><strong>BME 347 T</strong> Fundamentals of Biomedical Optics</td>
</tr>
<tr>
<td>BME 348 &amp; 251</td>
<td>BME 251</td>
</tr>
<tr>
<td><strong>BME 374K T</strong> Biomedical Instrument Design</td>
<td><strong>BME 374L T</strong> Applications of BME Lab</td>
</tr>
<tr>
<td>E E 438</td>
<td>BME 374K</td>
</tr>
<tr>
<td><strong>E E 422C T</strong> Software Design and Implementation II</td>
<td><strong>E E 347 T</strong> Modern Optics</td>
</tr>
<tr>
<td>E E 432</td>
<td>BME 343</td>
</tr>
<tr>
<td><strong>E E 445L T</strong> Embedded Systems Design Lab</td>
<td><strong>E E 445M T</strong> Embedded and Real-Time System Lab</td>
</tr>
<tr>
<td>E E 319K</td>
<td>E E 445L or E E 445S</td>
</tr>
<tr>
<td>E E 312</td>
<td>E E 333T</td>
</tr>
</tbody>
</table>

**Spring Only**

| **BME 371R T** Digital Image and Video Processing |
| E E 333T | BME 335 |

**Spring Only**

| **E E 371R T** Digital Image and Video Processing |
| BME 335 |

**Approved upper-div Engr.**

- Varies
- Not already used as a Tech Elective

**Approved upper-div BME**

- Varies

**Approved upper-div Comp Sci.**

- Varies

**Approved upper-div Math**

- Varies

**Approved upper-div Physics**

- Varies

**Approved Graduate Course**

- BME X77(X)
- Only counts for one remaining Engr. Elective hour
- Permission from Instructor

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**Legend**

- **B** Engineering Foundations of BME
- **PRE-REQ** – credit for Co-requisite – credit OR registration for
- **CO-REQ**
- **B** – Basic Sequence
- **C** – Core Curriculum
- **M** – Major Sequence
- **S** – Supporting Course
- **T** – Technical Area

Revised: 07/10/2013; SCD
Biomedical Engineering
2010 - 2012 Undergraduate Catalog General Curriculum

Fall
1
BME 102L B Introduction to BME Design Principles
BME 303 B Introduction to Computing
BIO 311C B Introductory Biology I
BIO 206L B Introduction to Lab Experiments in Biology
M 408C B Differential and Integral Calculus
UGS 302/303 B First-Year Signature Course

Spring
BBME 303 B Introduction to Computing
BBME 314 B Engineering Foundations of BME
CH 302 B Principles of Chemistry II
CH 204 B Introduction to Chemical Practice
M 408D B Sequences, Series and Multivariable Calculus
PHY 303K B Engineering Physics I
PHY 103M B Engineering Physics I Lab

Fall
2
BME 314 B Engineering Foundations of BME
CH 328M or 320M B Organic Chemistry I
CH 128K B Organic Chemistry I Lab
M 427K B Advanced Calculus for Applications I
PHY 303L B Engineering Physics II
PHY 103N B Engineering Physics II Lab
RHE 306 B Rhetoric and Composition

Spring
BBIO 311C/D B Introduction to Lab Experiments in Biology
BBME 311 B Network Analysis in Biomedical Engineering
BBME 333T B Engineering Communication
BBME 335 B Engineering Probability and Statistics
BBME 353 & 365S B Transport Phenomena in Living Systems
BBME 355 B Modeling of BME Systems
BBME 365R B Quantitative Engr. Physiology II
MBME 221 M Measurement and Instrumentation Lab
MBME 251 M Biomedical Image, Signal, & Transport Process Lab
MBME 221 M Measurement and Instrumentation Lab
MBME 251 M Biomedical Image, Signal, & Transport Process Lab

Fall
3
BBME 303 B Introduction to Computing
BBME 314 B Engineering Foundations of BME
CH 302 B Principles of Chemistry II
CH 204 B Introduction to Chemical Practice
M 408D B Sequences, Series and Multivariable Calculus
PHY 303K B Engineering Physics I
PHY 103M B Engineering Physics I Lab

Spring
BBME 311 B Network Analysis in Biomedical Engineering
BBME 314 B Engineering Foundations of BME
BBME 333T B Engineering Communication
BBME 335 B Engineering Probability and Statistics
BBME 353 & 365S B Transport Phenomena in Living Systems
BBME 355 B Modeling of BME Systems
BBME 365R B Quantitative Engr. Physiology II
MBME 221 M Measurement and Instrumentation Lab
MBME 251 M Biomedical Image, Signal, & Transport Process Lab

Fall
4
BBME 303 B Introduction to Computing
BBME 314 B Engineering Foundations of BME
CH 302 B Principles of Chemistry II
CH 204 B Introduction to Chemical Practice
M 408D B Sequences, Series and Multivariable Calculus
PHY 303K B Engineering Physics I
PHY 103M B Engineering Physics I Lab

Spring
BBME 303 B Introduction to Computing
BBME 314 B Engineering Foundations of BME
CH 302 B Principles of Chemistry II
CH 204 B Introduction to Chemical Practice
M 408D B Sequences, Series and Multivariable Calculus
PHY 303K B Engineering Physics I
PHY 103M B Engineering Physics I Lab

Legend

B – Basic Sequence
C – Core Curriculum
M – Major Sequence
S – Supporting Course
T – Technical Area

Pre-req = credit for Co-req = credit OR registration for

Claim Credit: ACT 26+ SAT Writing 600-800