Bioinstrumentation Track Form
Fall 2019 Catalog: 15 Hours

SCOPE: The Bioinstrumentation Track is designed to equip BMEN students for the medical device and imaging instrumentation field, which covers clinical and lab instrumentation from the nanoscale to the whole body. This track equips students with focus in either imaging or instrumentation, and provides guidance to select coursework in several application areas for each of the focus topics. Students will gain an understanding of medical device design, underlying physics and instrumentation for measuring physiological parameters and forming medical images, signal/image processing and control systems.

Schedule an appointment with a track coordinator for course selection discussion and career advising. Track coordinators can be selected from Drs. Coté, Jafari, K. Maitland, McDougall, Peak, Walsh, Yakovlev, and Yeh.

Name: __________________________________________   UIN: _________________ Phone #: ____________________

TAMU Email: ____________________________________________   Graduation Term: ___________________________

Required Track Courses (9 hours)

- BMEN 322 Biosignal Analysis (3)
- BMEN 401 Principles and Analysis of Biological Control Systems (3)

Track Courses (Select 3-6 hours)

- BMEN 491 Research (1-3)
- BMEN 402 Biomedical Optics Laboratory (3)
- BMEN 422 Biomedical Electromagnetics (3)
- BMEN 425 Biophotonics I (3)
- BMEN 427 or ECEN 463 Magnetic Resonance Engineering Lab (3)
- BMEN 428 Microcontrollers & Communication in Medicine (3)
- BMEN 448 Healthcare Technology in the Developing World (Study Abroad) (3)
- ECEN 411 Introduction to Magnetic Resonance Imaging and Magnetic Resonance Spectroscopy (3)
- ECEN 412 Ultrasound Imaging (3)
- ECEN 414 Biosensors (3)
- ECEN 447 Digital Image Processing (3)

Other Courses (Select 0-3 hours)

- ACCT 640 Accounting Concepts & Procedures I (3)
- BMEN 4XX BMEN Elective (subject to track coordinator approval) (3)
- BMEN 404 FDA Good Laboratory and Clinical Practices (3)
- BMEN 469 Entrepreneurial Issues in Biomedical Engineering (3)
- CHEM 228 Organic Chemistry II (3)
- ENGR 385 Co-Op (one semester credit hour per term up to three credit hours)
- VTPP 401 History of Medicine in Europe (3)
- VTPB 410 Cell Mechanisms of Disease (3)

If requesting a course not listed above, list here:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th># of Hours</th>
<th>Advisor Initials</th>
<th>Track Coordinator Initials</th>
<th>Dir. of Ugrad Programs Initials</th>
</tr>
</thead>
</table>

The approval of a deviation is made by the Director of Undergrad Programs who will take into consideration the recommendation of the advisor and a track coordinator. If applicable, why are you requesting a deviation from the approved list of courses?
Career Advising

What are your current plans after graduation?  Industry  Medical School  Graduate School  Military  Other

Please elaborate:

________________________________________________________

Have you participated in or planned any of the following?  (Indicate completed or planned)

Undergraduate Research  Study Abroad  Volunteering

Internship  Co-op  Shadowing

Student Organizations (member or leader?)  Other _________________________

The following items will help you be successful in obtaining your goals upon graduation:

☐ Craft a profile on Texas A&M Career Center’s website HireAggies.com
☐ Attend the SEC Career Fairs
☐ Attend BMES weekly meetings
☐ Create a resume and have it reviewed by the Career Center staff
☐ Draft a cover letter and have it reviewed by the Writing Center staff
☐ Build a LinkedIn account – https://www.linkedin.com/in/_______________________________
☐ If continuing education, study for and take the appropriate entry exams
☐ If attending medical school, meet with an advisor in the Texas A&M Office of Professional School Advising

Any item not checked above should be completed prior to the start of your senior year.

Recommendations/comments from Track Coordinator (required):

________________________________________________________

Approved and discussed by:

__________________________________________  ____________________________
Student signature and date  Director of Undergraduate Programs signature and date (if deviating)

__________________________________________  ____________________________
Track Coordinator printed name  Track Coordinator signature and date

Once this form is complete, schedule an appointment with your assigned Track Coordinator.

ADVISING OFFICE USE ONLY:  Date received _________  Degree planner _________  Adjustments _________
Entered into Database _________  Signature and date ____________________________________________

Updated February 2020