

Two tracks were recently approved by the HSSEAS Faculty Executive Committee:

- (i) Biomaterials and Regenerative Medicine
- (ii) Biomedical Devices

The specific courses for each proposed track are listed below.

(i) Biomaterials and Regenerative Medicine

1. BE 199 (Undergraduate Research)*
2. BE M104 (Physical Chemistry of Biomacromolecules)
3. BE M105 (Biopolymer Chemistry and Bioconjugates)
4. Biol Chem CM153G (Macromolecular Structure)
5. BME CM140 (Introduction to Biomechanics)
6. BME CM183 (Targeted Drug Delivery and Controlled Drug Release)
7. BME C185 (Introduction to Tissue Engineering)
8. BME C187 (Applied Tissue Engineering: Clinical and Industrial Perspectives)
10. Chem C140 (Bionanotechnology)
11. Chem C181 (Polymer Chemistry)
12. MCD BIO 168 (Stem Cell Biology)
13. MSE 104 (Science of Engineering Materials) TBR
14. MSE 110 (Introduction to Materials Characterization A) TBR
15. MSE 111 (Introduction to Materials Characterization B) TBR
16. MSE 120 (Physics of Materials) TBR
17. MSE 130 (Phase Relations in Solids) TBR
18. MSE 132 (Structure and Properties of Metallic Alloys) TBR
19. MSE 140 (Materials Selection and Engineering Design) TBR
18. MSE 143A (Mechanical Behavior of Materials) TBR
20. MSE 150 (Introduction to Polymers) TBR
21. MSE 151 (Structure and Properties of Composite Materials) TBR
22. MSE 160 (Introduction to Ceramics and Glasses) TBR
23. MSE 161 (Processing of Ceramics and Glasses) TBR
24. Phys Sci C150 (Musculoskeletal Mechanics)
25. Phys Sci C152 (Musculoskeletal Anatomy, Physiology, and Biomechanics)
26. Phys Sci 154 (Cellular Communication and Regulation of Physiological Processes)
27. Phys Sci 155 (Development and Structure of Musculoskeletal System)

(ii) Biomedical Devices

1. BE 199 (Undergraduate Research)*
2. BE M131 (Nanopore Sensing)
3. MAE 180/EE 150 (MEMS) TBR
4. MAE 180L/EE 150L (MEMS Lab) TBR
5. BME 172 (Design of Minimally Invasive Surgical Tools)
6. EE 100 (Electrical and Electronic Circuits) TBR
7. EE 102 (Systems and Signals) TBR
8. MAE 187L (Biosensors Laboratory) TBR

^{TBR} These courses have been identified by their departments to fulfill TBR (as of 10/7/2008). Students may take these courses to fulfill TBR and track courses simultaneously. Alternatively, students may choose the standard track (i.e. no track) and take any approved TBRs and select any of the listed electives to fulfill the track requirement. Students should refer to http://www.seasoasa.ucla.edu/current/technical_breadth_files/TBA.pdf for regular updates to TBR lists. BE majors cannot take BE TBR courses to fulfill TBR.

* For BE 199 to fulfill a track requirement, the research project must fit within the scope of the track field. The research report must be approved by the supervisor and Vice Chair.