Flow Chart - Bachelor of Science Degree in Biomedical Engineering (2018-19)

Tissue Engineering (TE) Concentration

→ Prerequisite

Pre-professional Program

1st Yr Fall Sem 18 hrs

- MATH 1426 Calculus I
- BIOL 1441 Cell & Molecular Biology
- CHEM 1441 Gen Chem I (w/ Lab)
- BE 1105 Med Appl. of Eng.
- BE 1325 Intro to BE
- ENGR 1250 Eng Probs Solving
- UNIV 1131 Student Success

1st Yr Spr Sem 18 hrs

- MATH 2425 Calculus II
- BIOL 1442 Stru & Func of Organisms
- CHEM 1442 Gen Chem II (w/ Lab)
- BE 2315 Intro Computational Tools for BE
- ENGL 1301 Rhetoric & Composition I

2nd Yr Fall Sem 17 hrs

- PHYS 1443 Tech Phys I (w/ Lab)
- MATH 2326 Calculus III
- BE 3415 Fundamentals of Bio-Molecu Eng
- HIST 1311 U.S. History to 1865
- COMS 2302 Prof, Tech Communication

2nd Yr Spr Sem 17 hrs

- PHYS 1444 Tech Phys II (w/ Lab)
- MATH 3319 Diff Eq & Lin Algebra
- BE 3320 Measurement Lab
- MATH 3316 Stats Inference or IE 3301 Eng Prob Pre-req: MATH 2425
- BE 2310 Eng Appr to Solve Clinic Challenges — Counted as a BE Tech Elec

1444 concurrent w/ 3320

Professional Program

3rd Yr Fall Sem 15 hrs

- BE 4382 Lab Principles
- BE 3380 Human Physio in BE
- BE 4368 or BE 4364 or BE 4372 (Choose one)
- BE 3317 Linear Systems in Bioengineering
- POLS 2311 U.S. Government

or concurrent

3rd Yr Spr Sem 15 hrs

- BE Tech Elec Approved by UG Advisor
- BE 3310 or BE 4312 (Choose one)
- BE 3301 Cell Physio for Bioengineers
- BE 3367 or BE 4365 or BE 4373 (Choose one)
- POLS 2312 St & Local Government

4th Yr Fall Sem 15 hrs

- BE 4337 or BE 4314 (Choose one)
- BE 4350 Senior Design Project 1
- BE Tech Elec (Approved by UG Advisor)
- PHIL 1304 Contemp Moral probs
- HIST 1312 U.S. History Since 1865

4th Yr Spr Sem 12 hrs

- BE 4333 or BE 4331 (Choose one)
- BE 4355 Senior Design Project 2 (Instructor permission)
- 3 Hrs Creative Arts (choose 1 from Table A
- 3 hr in Soc, Behavi Sci (choose 1 from Table B). Psychology or Sociology recommended)

Students in Pre-Professional Program must complete all Sci/Eng/Math courses (not including statistics), BE 3415, 3320, ENGL1301and COMS2302 prior to taking any Professional Program courses. Admission to Professional Program is required to take any Professional Program courses.

This document is subject to revision.
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