

## Biomedical Analysis & Design (Biomechanics) Track (13-14)

	✓	Freshman Year		✓	Sophomore Year
<b>Fall</b>		BIOE 1100 – Intro to BIOE	<b>Fall</b>		CHEM 3331 & 3221 – Organic Chemistry I & Lab
		BIOL 1361 & 1161 –Intro to Biological Science & Lab			*BIOE 2150 – Biosensors I
		CHEM 1331 & 1111 – Fund. of Chemistry & Lab			ENGL 1304 – First Year Writing II
		ENGL 1303– First Year Writing I			MATH 2433 – Calculus III
		MATH 1431 – Calculus I			PHYS 1322 – University Physics II
<b>Spring</b>		*ECE 1331 – Computers & Problem-Solving	<b>Spring</b>		CHEE 2331 – Chemical Processes
		BIOL 1362 & 1162 – Intro to Biological Science & Lab			ECE 2300 & 2100 – Circuit Analysis & Lab
		CHEM 1332 & 1112 – Fund. of Chemistry & Lab			MATH 3321 – Engineering Math
		MATH 1432 – Calculus II			MECE 3400 – Intro to Mechanics
		PHYS 1321 – University Physics I			HIST 1377 – The US to 1877
		Junior Year			Senior Year
<b>Fall</b>		Visual & Performing Arts Core	<b>Fall</b>		*BIOE 5312 – Computational Fluid Dynamics
		*BIOE 3340 – Quantitative Physiology			BIOE 5323 – Fund. of Tissue Engineering
		HIST 1378 – US History Since 1877			*BIOE 5455 – Bioanalytics
		ENGI 2304 – Technical Communication			BIOE Technical Elective
		INDE 2333 – Engineering Statistics			POLS 1337 – US Government
<b>Spring</b>		*BIOE 3440 – Biothermodynamics & Biofluids	<b>Spring</b>		*BIOE 4325 – App. of Engr. Principles to Biol. Systems
		*BIOE 3350 – Biosensors II			BIOE Technical Elective
		*BIOE 4324 – Advanced Continuum Biomechanics			*BIOE 4334 – Capstone Design
		BCHS 3304 – Biochemistry I			Social Science Core Course
		POLS 1336 – US & TX Constitutions			Humanities Core Course

### \*Course Substitutions:

Original Course	Course Substitution	Notes
ECE 1331 - Computers & Problem-Solving	BIOE 1331 - Computers & Problem-Solving	
BIOE 2150 – Biosensors I	BIOE 4197/4115 – Bioinstrumentation Lab	Fall Senior Year Course
BIOE 3340 – Quantitative Physiology	BIOE 3340 & 3140 – Quantitative Physiology & Lab	Beginning F14
BIOE 3440 – Biothermodynamics & Biofluids	BIOE 3341 – Biothermodynamics	Beginning F14
BIOE 3350 – Biosensors II	BIOE 4397/4315 – Bioinstrumentation	Fall Senior Year Course
BIOE 4324 – Advanced Continuum Biomechanics	BIOE 4397/6397 – Biomedical Microdevices	Senior Year Course
BIOE 5312 – Computational Fluid Dynamics	BIOE 4397/6397 – Advanced Biofluid Dynamics	
BIOE 5455 – Bioanalytics	BIOE 4397 & 4197 – Genomics and Proteomics & Lab	Beginning Sp14
BIOE 4325 – App. of Engr. Principles to Biol. Systems	BIOE 5397/5316 – Transport Phenomena Biosystems	
BIOE 4334 – Capstone Design	BIOE 4336 – Capstone Design II	Beginning Sp 15