

## BME Checklist - Biomolecular

Year	Biomedical Engineering	Prerequisites
	BIOE 1100 (Intro. To BME)	BME major declaration
	BIOE 1397 (Comp. & Prob. Solving)	MATH 1432
	BIOE 3340 (Quantitative Physiology)	BIOL 1161, 1162, 1361, 1362, CHEM 3221, 3331, MATH 3321, MECE 3400, and credit for or concurrent enrollment in CHEE 2331, ECE 2100 & 2300
	BIOE 3350 (Biosensors)	CHEE 2331, ECE 2100/ 2300, and credit for or concurrent enrollment in BIOE 3440
	BIOE 3440 (Biotherm. & Biofluids)	BIOE 3340, ECE 2100, 2300, CHEE 2331, AND MECE 3400
	BIOE 4323 (Tissue Engineering)	BIOE 3440 & MATH 3321
	BIOE 4366 (Biomolecular Engineering)	BIOE 3440 and concurrent enrollment in BIOE 5455
	BIOE 4393 (Cellular/ Bio Transport Phenom.)	BIOE 3440
	BIOE 4398/ 5389 (Transport Phen. in Physio Sys)	BIOE 3440 & BIOE 4393
	BIOE 5455/ 4455 (Bioanalytics I)	BCHS 3304, BIOE 3350, 3440, ENGI 2304, INDE 2333
	BIOE Elective	Varies by course
	BIOE Elective	Varies by course
	BIOE 4334 Capstone Design	ENGI 2304, INDE 2333, and BIOE 5455
Year	Math Courses	Pre-Requisites
	MATH 1431: Calculus 1	Placement Exam
	MATH 1432: Calculus 2	MATH 1431
	MATH 2433: Calculus 3	MATH 1432
	INDE 2333: Engineering Statistics	MATH 1432 and ECE 1331
	MATH 3321: Engineering Math	MATH 1432
Year	Biology	Pre-Requisites
	BIOL 1361 w/ 1161 (Biological Science w/ Lab)	MATH 1310 or equivalent
	BIOL 1362 w/ BIOL 1162	MATH 1310 or equivalent and BIOL 1361/1161
Year	Chemistry	Prerequisites
	CHEM 1331/ 1111 (Chemistry 1/	MATH 1330 equivalent & completion of chem placement test

	Fund. Of Chem Lab)	or CHEM 1301
	CHEM 1332/ 1112 (Chemistry II and Lab)	MATH 1330 or equivalent & CHEM 1331/1111
	CHEM 3331/ 3221 (Organic Chemistry/ Lab)	CHEM 1332
	CHEE 2331 (Chemical Processes)	BIOE 1331/1397 or ECE 1331, CHEM 1332, MATH 1432, & PHYS 1321
	BCHS 3304 (Biochemistry I)	CHEM 3331/ 3221
<b>Year</b>	<b>Physics</b>	<b>Prerequisites</b>
	PHYS 1321 (University Physics I)	MATH 1432
	PHYS 1322 (University Physics II)	PHYS 1321 & credit for or current enrollment in MATH 2433
<b>Year</b>	<b>Mechanical Engineering</b>	<b>Prerequisites</b>
	MECE 3400 (Intro to Mechanics)	PHYS 1321 & credit for or concurrent enrollment in MATH 3321
<b>Year</b>	<b>Electrical Engineering</b>	<b>Prerequisites</b>
	ECE 2300/ 2100 (Circuit Analysis/ Lab)	BIOE 1100 & 1331/1337, ENGL 1304, MATH 1432, PHYS 1321, & credit for or concurrent enrollment in MATH 2433, 3321, & PHYS 1322
<b>Year</b>	<b>Core Curriculum (Not Covered by Major)</b>	<b>Prerequisites</b>
	English 1303 or 1309 (Communication 3 Hrs.)	For 1303 - Score of 240 on the TASP Writing Test
	English 1304 or 1310 (Communication 3 Hrs)	1303 or 1309
	History 1376 or 1377 (American History 3 Hrs.)	NA
	History 1378 (American History 3 Hrs.)	NA
	POLS 1336 (Government 3 Hrs.)	NA
	POLS 1337 (Government 3 Hrs.)	NA
	Humanities - 3 Hrs.	
	Visual & Performing Arts (3 Hrs.)	
	ENGI 2304 (Technical Communication)	ENGL 1304 & Completion of one of the following: CHEE, ECE, MECE, INDE, or CIVE 1331
	Social & Behavioral Science (3 Hrs.)	

**Biomedical Engineering – Biomolecular Option  
Undergraduate Curriculum Flowchart 2012-2013**

Sem. Credit  
Hrs.

