Senior CheckList for BME majors in the accelerated BE/MS as of Fall 2017

	Pre-requisites for this course*	Fall, Freshman Year	credits	sem	grade	This course is required for:		Pre-requisites for this course	Spring, Freshman Year	credits	sem	grade	This course is required for:			
	math placement exam (MPE) level 5	AMS 151: Calc 1 SBC QPS	3			Calc 2		C or higher in Calc 1, or MPE level 7	AMS 161: Calc 2	3			Calc 3 or 4 BME 260			
	MAT 125 or higher	CHE 131: Chem 1	4			Chem 2; BIO 202/204		C or higher in Chem 1; Pre- or Co-req: Calc 1 or Calc A	CHE 132: Chem 2	4			BME 381; BME 404			
	5 MPE; Co-req Calc 1	PHY 131/133: Physics 1/Lab SBC SNW	4			Physics 2; BME 260		C or higher in PHY 131 or PHY 141; Co-req: Calc 2	PHY 132/134: Physics 2/Lab	4						
	BME major or BNG minor	BME 100: Intro to BME SBC TECH	3			BME 212; BME 260; BME 381; BME 353		none	MEC 203: CAD	3						
		SBC: WRT 102 (WRT)	3			BME 300		BME major	BME 120: Programming	3						
		Freshman Seminar (101)	1						Freshman Seminar (102)	1						
		Total	18						Total	18						
	Fall, Sophomore Year								Spring, Sophomore Year							
	Calc 2 or MPE level 9	AMS 261: Calc 3	4			BME 305; BME430		Calc 2 or MPE level 9	AMS 361: Calc 4	4			BME 305			
	BME major; BME 100; Pre- or Co-req: BIO 202 or 203	BME 212: Res Lab Fund or SBC (SBS)	3			BME303; BME 311; BME 313; BME 353		BME major; BME 100; Pre- or Co-req: BIO 202 or 203	BME 212: Res Lab Fund or SBC (SBS)	3			BME303; BME 311; BME 313 BME 353			
	C or higher in Chem 1 or Corequisite CHE 152	BIO 202: Mol&Cell Biology	3			Pre/Co BME 212; 303; 304; 305; 381; 404; 430; 481		BME 100; AMS 161; Phy 1 or Phy A	BME 260: Statics/Dynamics	3			BME 303; BME 305			
	C or higher in Chem 1, or Co- req: CHE 152; Pre- or Corequisite: BIO 202	BIO 204: Bio Lab	2					BME 100; BIO 202 or 203	BME 304: Genetic Eng (STAS or DEC H)	3			BME 402			
	AMS 151 or MAT 131 or 141 or co-req MAT 126 or MPE level 7	AMS 210: Lin Alg	3						SBC: GLO (or DEC B)	3						
		Total	15						Total	16						
*Check Undergraduate Builetin for Alternative Pre-requisites and Co-requisites and Co-requisites and Co-requisites and the most Up-to-Date Information NOTE: This flow chart is for planning purposes only. Variations to this flow chart may meet the requirements for graduation; check with your advisor and/or the undergraduate program coordinator. **3 BME TE required for U2, U3, U4; 2 must be design **5 BME TE required for U1 and transfers as of Fall 2017; 2 must be design other TE may be engineering or non-engineering																
Math Sequence -MAT 125/126/127 or MAT 131/132 or MAT 141/142 in lieu of AMS 151/161 -MAT 203 or MAT 205 in lieu of AMS 261 -MAT 303 or MAT 305 in lieu of AMS 361 -MAT 211 in lieu of AMS 210					•All requir •All requir •All requir (BIO 202	requiring a C or better grade red math courses in the calculus sec red natural science courses (204, CHE sequence and PHY sequ red BME courses	quence ence)	9	BME Technical Electives (pre-reqs) for any track BME 311* (BME212) BME 312* BME 313* (BME212, pre/co BME271)	*design courses BME 402 BME 404* BME 420						

Physics Sequence

•PHY 125/126/127 or 141/142 in lieu of PHY 131/132

Chemistry Sequence •CHE 152 in lieu of CHE 131/132

(preferable for pre-medical students to take CHE 152/331/332)

•MAT 307/308 plus a third AMS/MAT course of your choosing (preferably one approved as a tech elective) in lieu of AMS 210/261/361

Computer Programming

•ESG 111 or CSE 130 or ESE 124 in lieu of BME 120

(BME 100/212/260/271/301/303/304/305/440/441) All technical electives

BME 300 requires an "S" grade

To graduate, an overall GPA of 2.0 is required

BME Technical Electives (pre-reqs)	*design courses	
for any track		
BME 311* (BME212)	BME 402	
BME 312*	BME 404*	
BME 313* (BME212, pre/co BME271)	BME 420	
BME 353 (BME100,212)	BME 430	
BME 354* (BME353)	BME 481*	
BME 371 (BME305)	BME 499	
BME 381* (BME100, CHE132, pre/co (BIO202	or 203)	

SBC Requirements You need to take the following 6 SBC courses: ARTS SBS GLO USA HUM WRT CRC courses can satisfy more than one SBC cz HUM WRT +SBC courses can satisfy more than one SBC category •Remaining SBC requirements are satisfied within the major requirements OPS satisfied by calculus SNW satisfied by chemistry TECH satisfied by BME 100 STAS satisfied by BME 304 Category III and IV SBC satisfied by BME 440/441

		Fall, Junior Year				Spring, Junior Year							
	Calc 2; Phys 2	BME 271: Intro BioElect BioPhotonics (or ESE271)	3			BME 301; BME313; BME481		pre- or co-req BME 212; C or higher in BME 271; BME 120	BME 301: Bioelectricity (Biophotonics)	3			BME 440
	AMS 161 or MAT 132 or MAT 126 or MAT 142	AMS 310: Prob/Stat	3					Calc 3 & 4; Pre- or co-req BME 212; BME 260; BME 303; Pre- or co-req BIO 202 or 203	BME 305: Biofluids	3			BME 371; BME 440
	BME 260, BME 212; Pre- or Co req BIO 202 or 203	BME 303: Biomechanics	3			BME 305; BME420	Ī		BME Tech Elective 3	3			
	WRT 102; U3 or U4 standing; BME major; co-req any BME 300-400	BME 300: Tech Writing SBC WRTD	0						BME Tech Elective 4	3			
		BME Tech Elective 1 (design)**	3						SBC: HUM	3			
		BME Tech Elective 2 (design)	3										
		Total	15						Total	15			
Fall, Senior Year Spring, Senior Year													
	BME major; U4 standing; BME 301 and 305	BME 440: Senior Design 1	3					BME 440	BME 441: Senior Design 2	3			
		BME Tech Elective 5	3						BME Tech Elective 7	3			
		BME Tech Elective 6	3						BME Tech Elective 8	3			
		BME 501	3						BME 502	3			
		BME 520: Lab Rotation 1**	1						BME 521: Lab Rotation 2**	1			
		SBC: ARTS	3						SBC: USA	3			
		Total	15 or 16						Total	15 or 16			
		Fall, 5th Year (Graduate Student				Spring, 5th Year (Graduate Student							
		BME 520: Lab Rotation 1***	1						BME 521: Lab Rotation 2***	1			
		BME 505: Principles and Practices of BME	2						BME 509: Fundamental of Biosciences Industry	3			
		BME Grad Tech Elective 1	3						BME Grad Tech Elective 4	3			
		BME Grad Tech Elective 2	3						BME Grad Tech Elective 5	3			
		BME Grad Tech Elective 3	3						BME Grad Tech Elective 6	3			
		BME 599: BME Research**	3						BME 599: BME Research**	3			
		Total	12 or 15						Total	13 or 15			

*Check Undergraduate Bulletin for Alternative Pre-requisites and Co-requisites and the most Up-to-Date Information

** Only if you will complete the MS degree with a thesis *** Only if you will not complete the MS degree with a thesis

 Required Technical Electives Ugrad (30 credits required)
 30

 Required Ugard Engineering (51 credits required)
 51

 Total credits for undergraduate program
 127

 Total credits for graduate program (with out thesis)
 31

 Total credits for graduate program (with thesis)
 37

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Undergraduate Coordinator DATE DATE