

Table 1. Curriculum for the 5-yr BS/Biology MS/BE Program

IMAGING

	Engineering	Biology	Liberal Arts			
Yr 1	Fall	BE1225 (Intro to BE)	2 BIOL1441 (Cell & Molecu) MATH1426 (Calculus 1) # CHEM 1441 (Gen Chem 1 w/lab)	4 POLI2311 (US government)	3	17
	Spring	MATH2425 (Calculus 2)	4 BIOL1442 (Structure & function) # CHEM1442 (Gen Chem 2 w/lab)	4 POLI2312 (State & Local) 4 ENGL1301 (Composition 1)	3 3	18
Yr 2	Fall	MATH2326 (Calculus 3)	3 # PHYS1443 (Gen Technical Physics 1) CHEM2321 (Org Chem 1) # CHEM2181 (Org Chem 1 Lab)	4 HIST1311 (US History 1) 3 ENGL1302 (Composition 2)	3 3	17
	Spring	MATH3319 (Diff eq and Linear Algebra)	3 # PHYS1444 (Gen Technical Physics 2) CHEM2322 (Org Chem 2) # CHEM2182 (Org Chem 2 Lab)	4 HIST1312 (US History 2) 3 Fine art (free elective)	3 3	17
Yr 3	Fall	EE1347 (Computer Sol for EE Pproblems) EE2440 (Circuit Analysis w Lab) CSE1310 (Intro to Computer & Programming)	3 BIOL3301 (Cell Physiology)	3 Social science (free elective)	3	16
	Earliest time to submit application for Graduate School Admission in preparing for taking graduate 5000-level courses					
	Spring	EE2307 (Electromagnetics 1) EE3318 (Discrete Signals & Systems)	3 BIOL3444 (General Microbiology) 3 BIOL3315 (Genetics)	4 Literature (3 hr)	3	16
	Summer	BE5309D (Human Physiology)	3			3
Yr 4	Fall	EE3308 (Electromagnetics 2) MAE3317 or EE 3317 (Linear System) BE5344 (Bioinstrumentation)	3 BIOL4353 (Scan Elec Microscopy) 3 CHEM4311 (Biochemistry 1)	3 BIOL3305 or SPCH3302 (Tech Writing)	3	18
	Spring	MAE3319 (Dyn Sys Modeling & Simulation) EE4318 (Digital Signal processing) MAE4345 or EE 4315 (Intro to Robotics)	3 BIOL5365 (Image Analysis) 3 # BIOL3310 (Tissue Culture & Applications)			15
	Summer	# BE5365 (Cell culture Techniq. in Biotechnology)	3			3
Yr 5	Fall	BE4325 (Fundamentals of BME) BE5300 (Medical Imaging - Liu) # BE5382 (Lab Principles)	3 BIOL5314 (Biometry)			12
	Spring	BE5300 (Fundamental of imaging) - Dave BE5352 (Digital Process of Biol Signals) BE5390 (Research Project) BE5293 (Master Comp Exam)				11

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For thesis-substitute option

Lab Courses