



# BIOMEDICAL ENGINEERING LOUISIANA TECH UNIVERSITY

Name \_\_\_\_\_

Date \_\_\_\_\_

Student ID \_\_\_\_\_  
Number \_\_\_\_\_

Email \_\_\_\_\_

FRESHMAN YEAR (33 sch)														
Fall Quarter			Cr	Gr	Winter Quarter			Cr	Gr	Spring Quarter			Cr	Gr
ENGR 120*	Engr Problem Solving I	2		ENGR 121*	Engr Problem Solving II	2		ENGR 122*	Engr Problem Solving III	2				
MATH 240*	Math for Engr and Science I	3		MATH 241*	Math for Engr and Science II	3		MATH 242*	Math for Engr & Science III	3				
CHEM 100*	General Chemistry	2		CHEM 101*	General Chemistry	2		CHEM 102	General Chemistry	2				
UNIV 100	University Seminar	1		CHEM 103	General Chemistry Lab	1		CHEM 104	General Chemistry Lab	1				
ENGL 101	Freshman Composition I	3		ENGL 102	Freshman Composition II	3		PHYS 201*	Physics for Engr & Science I	3				
			11				11				11			

SOPHOMORE YEAR (33 sch)														
Fall Quarter			Cr	Gr	Winter Quarter			Cr	Gr	Spring Quarter			Cr	Gr
ENGR 220*	Statics & Mechs of Materials	3		ENGR 221*	Electrical Engr and Circuits I	3		ENGR 222*	Thermodynamics	3				
MATH 243*	Math for Engr & Science IV	3		MATH 244*	Math for Engr and Science V	3		MATH 245*	Math for Engr & Science VI	3				
<b>BIEN 202*</b>	Biomedical Engr Principles I	1		<b>BIEN 203*</b>	Biomedical Engr Principles II	1		MEMT 201*	Engineering Materials	2				
BISC 130*	Biological Principles	3		BISC 225*	Human Anat & Physiol I	3		MEEN 215*	Engineering Materials Lab	1				
BISC 131*	Biological Principles Lab	1		BISC 227*	Human Anat & Physiol II	3				12				
			11				10				12			

JUNIOR YEAR (36 sch)														
Fall Quarter			Cr	Gr	Winter Quarter			Cr	Gr	Spring Quarter			Cr	Gr
<b>BIEN 225*</b>	Biomedical Systems	3		<b>BIEN 301*</b>	Biomed Fluid Mechanics	3		<b>BIEN 401*</b>	Biomedical Mass Transport	3				
<b>BIEN 230*</b>	Biomaterials	2		<b>BIEN 325*</b>	Bioinstrumentation	3		<b>BIEN 425*</b>	Adv Biomed Instrumentation	3				
PHYS 202*	Physics for Engr & Science II	3		ENGL 201 / 202	Literature	3		SPCH 377	Professional Speaking	3				
BISC 321	Animal Physiology Lab	1		Directed Elective**		3		Directed Elective**		3				
ENGL 303	Technical Writing	3					12				12			
			12				12				12			

SENIOR YEAR (33 sch)														
Fall Quarter			Cr	Gr	Winter Quarter			Cr	Gr	Spring Quarter			Cr	Gr
<b>BIEN 400*</b>	Biomed Engr Seminar	1		<b>BIEN 402*</b>	Biomed Engr Design I	2		<b>BIEN 404</b>	Biomed Engr Design II	2				
<b>BIEN 403*</b>	Physiological Control System	3		<b>BIEN 435</b>	Senior Biomed Lab	1		Social Science†		3				
<b>BIEN 430*</b>	Biomechanics	3		Social Science†		3		Directed Elective**		3				
Social Science†		3		HIST____†		3		ART	Fine Arts Appreciation	3				
			10				12				11			

Courses in boldface taught only once a year.

\* Grade of C or higher required.

\*\*Directed electives must be chosen in consultation with faculty advisor from one of the four concentration areas shown on the back of this page.

† HIST 102, GEOG 205 or GEOG 210 counts as the International Education Requirement.

‡ ART 290, SPTH 290, MUGN 290, or HPE 280 counts as the Fine Arts Requirement.

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**ELECTRICAL ENGINEERING CONCENTRATION**

Course	Name	Cr	Grd	Prerequisites
ELEN 232	Introduction to Digital Design	2		None
ELEN 242	Introduction to Microprocessor	3		ELEN 232 or Computer Science 265
ELEN 335	Analog Electronics	3		ENGR 221
ELEN 311	E/M Fields	2		PHYS 202
ELEN Elective*	300/400 level			Check Catalogue
	<b>Total</b>	<b>12</b>		

**CHEMICAL ENGINEERING CONCENTRATION**

Course	Name	Cr	Grd	Prerequisites
CMEN 202	Chemical Engineering Calculations	3		ENGR 122 (pre or co), MATH 242 (pre or co)
CMEN 332	Chemical Engineering Thermodynamics	3		ENGR 222
CMEN 402	Chemical Reaction Engineering	3		CMEN 313
CMEN Elective*	300 or 400 level CMEN Elective	3		Check Catalogue
	<b>Total</b>	<b>12</b>		

**MECHANICAL ENGINEERING CONCENTRATION**

Course	Name	Cr	Grd	Prerequisites
MEMT 212	Intermediate Strength of Materials	3		ENGR 220
MEMT 312	Dynamics	2		ENGR 220, PHYS 201
MEEN Electives*	300 or 400 level	7		Check Catalogue
	<b>Total</b>	<b>12</b>		

**PRE-MEDICAL CONCENTRATION**

Course	Name	Cr	Grd	Prerequisites
CHEM 250	Organic Chemistry	2		CHEM 102
CHEM 251	Organic Chemistry	2		CHEM 250, CHEM 253 (Co-req)
CHEM 252	Organic Chemistry	2		CHEM 251, CHEM 254 (Co-req)
CHEM 253	Organic Chemistry Lab I	1		CHEM 102, CHEM 251 (Co-req)
CHEM 254	Organic Chemistry Lab II	1		CHEM 253, CHEM 252 (Co-req)
PHYS 261	General Physics Lab	1		MATH 241
PHYS 262	General Physics Lab	1		PHYS 261
ENGR or BISC Elective		2		Check Catalogue
	<b>Total</b>	<b>12</b>		

**COMPUTER INFORMATION CONCENTRATION**

Course	Name	Cr	Grd	Prerequisites
CSC 120	Introduction to Computer Programming	3		
CSC 220	Data Structures	3		CSC 120
BIEN 310	Introduction to Computer Programming	3		BIEN 202
Electives	Taken from CSCI, CIS, HIM, ELEN, or BIEN 300 or 400 level with approval of advisor ( <b>must have computer content</b> )	3		Check Catalogue
	<b>Total</b>	<b>12</b>		

\*Or an approved BIEN elective appropriate to this track. \*\* Students who wish to apply for medical school should take an additional course in Biology.