EGRB

ORAL ROBERTS UNIVERSITY **DEGREE PLAN SHEET 2011-2012**

Engineering, Computer Science, Physics & Mathematics Department

DEGREE: **Bachelor of Science**

MAJOR: **BIOMEDICAL ENGINEERING (EGRB)**

TOTAL HOURS REQUIRED	137
Hours in Major	81
Hours in General Education	56

Name _____

ID _____ Date _____

Telephone _____ Email _____

Advisor _____

SEMESTER TAKEN	COURSE CODE			COURSE TITLE	CREDIT HOURS
				FRESHMAN Semester 1	
	COMP	102	*	Reading/Writing in Liberal Arts	3
	THE	103		Spirit-Empowered Living	3
	MAT	201	++	Calculus I	4
	CHE	111		General Chemistry I	3
	CHE	111		General Chemistry I Lab	1
	EGR	101		Introduction to Engineering	2
	EGR	100		Engineering/Physics Seminar	0
	GEN	099		Whole Person Assessment	0
	PRF	070		Swimming Proficiency	0
	HPE	001		Health Fitness I	1
					17
				SOPHOMORE Semester 3	
	MAT	321		Calculus of Functions of Several Variables	4
	PHY	112		Physics II	3
	PHY	112		Physics II Lab	1
	CHE	211		Organic Chemistry I	3
	CHE	211		Organic Chemistry I Lab	1
	BLIT	110		Survey of Old Testament Literature	3
			+	Social Science Elective	3
	EGR	100		Engineering/Physics Seminar	0
	HPE		^	HPE Activity	0.5
					18.5
				JUNIOR Semester 5	
	HUM		+++	Humanities Options	3
	BIO	111		Introduction to Biology I	3
	BIO	111		Introduction to Biology I Lab	1
	EE	311		Network Analysis II	3
	EGR	252		Engineering Computational Methods	3
	EE	321		Electronics I	3
	EE	321		Electronics I Lab	1
	EGR	100		Engineering/Physics Seminar	0
	HPE		^	HPE Activity	0.5
					17.5
				SENIOR Semester 7	
	HIS	101		American History	3
	EGR	221		Mechanics I: Statics	3
	EE	360		Electromagnetic Theory	3
	PHS	224		Human Physiology	3
	PHS	224		Human Physiology Lab	1
	EGR	498		Senior Design & Research I	2
	EGR	100		Engineering/Physics Seminar	0
	HPE		^	HPE Activity	0.5
					15.5

SEMESTER TAKEN	COURSE CODE			COURSE TITLE	CREDIT HOURS
				FRESHMAN Semester 2	
	BLIT	120		Survey of New Testament Literature	3
	CHE	112		General Chemistry II	3
	CHE	112		General Chemistry II Lab	1
	MAT	202		Calculus II	4
	PHY	111	++	Physics I	3
	PHY	111	++	Physics I Lab	1
	EGR	140		Engineering Graphics	2
	EGR	100		Engineering /Physics Seminar	0
	HPE	002		Health Fitness II	1
					18
				SOPHOMORE Semester 4	
	MAT	211		Differential Equations	3
	EGR	210		Network Analysis I	3
	EGR	210		Network Analysis I Lab	1
	CHE	212		Organic Chemistry II	3
	CHE	212		Organic Chemistry II Lab	1
	HUM	101		Humanities: Humanitas	3
	COM	101		Oral Communication	3
	EGR	100		Engineering/Physics Seminar	0
	HPE		^	HPE Activity	0.5
					17.5
	SUMMER				
	HUM		+++	Humanities Options	3
				JUNIOR Semester 6	
	COMP	303		Critical Reading and Writing	3
	HUM		+++	Humanities Options	3
	BE	310		Biomed Engineering Survey OR	3
	GOV	101		American Government	
	PHS	223		Human Anatomy	3
	PHS	223		Human Anatomy Lab	1
	EE	322		Electronics II	3
	EE	322		Electronics II Lab	1
	EGR	100		Engineering/Physics Seminar	0
	HPE		^	HPE Activity	0.5
					17.5
				SENIOR Semester 8	
	GOV	101		American Government OR	3
	BE	310		Biomedical Engineering Survey	
	EGR	222		Mechanics II: Dynamics	3
	BIO		++++	Biology Lecture Options	3
	BIO		++++	Biology Lab Options	1
	EGR	499		Senior Design & Research II	2
	EGR	100		Engineering/Physics Seminar	0
	HPE		^	HPE Activity	0.5
					12.5

KEY

*	If the student is required to enroll in COMP 101, then COMP 102 must be taken before Semester 6 and one of the other General Education courses will be taken by correspondence or summer school.
++	Students who need Precalculus in Semester I should take Calculus I in the spring and Physics I in the summer.
+	BUS 201 Principles of Economics I (recommended), PSY 201 Principles of Psychology, SOC 101 Introduction in Sociology, FIN 244 Personal Financial Planning , SOC 201 Marriage and Family, MUS 208 Music in World Cultures, SWK 202 Introduction to Social Work, or SOC 323 Child and Family in the Social Context.
+++	See list of Humanities (HUM) options on the back.
++++	Select 3 hour lecture and 1 hour lab from one of the following: BIO 311, BIO 411, BIO 431 or BIO 370
^	HPE courses are 1 credit hour each, but students can petition to take it for .5 credits. Course work remains the same.

Revised 6/6/2011

B. S. in Biomedical Engineering (EGRB) **2011-2012**

General Education			**Credit Hours**
Whole Person Assessment (GEN 099)			0
English (COMP 102, 303)			6
Oral Communication (COM 101)			3
			12
Humanities (HUM 101 plus three of the following: HUM 222*, 233*, 244*, 250, 255, 260, 270, 301*, 333*, COMP 101) *At least one course must be chosen from courses marked with asterisks.			
Biblical Literature (BLIT 110, 120)			6
Theology (THE 103)			3
Chemistry (CHE 111 lecture and lab)			4
Physics (PHY 111 lecture and lab)			4
Mathematics (MAT 201)			4
American History (HIS 101)			3
American Government (GOV 101)			3
Social Sciences (BUS 201 recommended)			3
Health, Physical Education, and Recreation (Health Fitness I and II, swimming course proficiency and six electives.)**			5
		General Education Total	56
Cognate			
MAT	202	Calculus II	4
MAT	211	Differential Equations	3
MAT	321	Calculus of Functions of Several variables	4
		Cognate Total	11
Major			
EGR	101	Introduction to Engineering	2
EGR	140	Engineering Graphics	2
EGR	210	Network Analysis I (lecture & lab)	4
EGR	221	Mechanics I: Statics	3
EGR	222	Mechanics II: Dynamics	3
EGR	252	Engineering Computational Methods	3
EGR	498	Senior Design and Research I	2
EGR	499	Senior Design and Research II	2
BE	310	Biomedical Engineering Survey	3
EE	311	Network Analysis II	3
EE	321	Electronics I (lecture & lab)	4
EE	322	Electronics II (lecture & lab)	4
EE	360	Electromagnetic Theory	3
EGR	100	Engineering/Physics Seminar	0
CHE	112	General Chemistry I (lecture & lab)	4
CHE	211	Organic Chemistry I (lecture & lab)	4
CHE	212	Organic Chemistry II (lecture & lab)	4
PHY	112	Physics II (lecture & lab)	4
BIO	111	Introduction to Biology I (lecture & lab)	4
BIO	*	*Choice of one of the following (lecture & lab:) BIO 311, BIO 411 or BIO 431	4
PHS	223	Human Anatomy & Physiology I (lecture & lab)	4
PHS	224	Human Anatomy & Physiology II (lecture & lab)	4
		Major Total	70
		DEGREE TOTAL	137

**All students must pass the seminar course each semester they are enrolled in this major.*

**After passing HPE 001 and 002, students must take and pass 1 activity course per full-time semester at ORU.