

ORAL ROBERTS UNIVERSITY
DEGREE: **Bachelor of Science**
MAJOR: **Biomedical Engineering (EGRB)**

DEGREE PLAN SHEET **2018-2019**
Engineering Department

TOTAL HOURS REQUIRED 138
Hours in Major 66
Hours in Cognate 15
Hours in General Education 57

Name _____
Z# _____ Date _____
Telephone _____ Email _____
Advisor _____

SEMESTER TAKEN	COURSE CODE	COURSE TITLE	CREDIT HOURS	SEMESTER TAKEN	COURSE CODE	COURSE TITLE	CREDIT HOURS
FRESHMAN Semester 1				FRESHMAN Semester 2			
_____	COMP 102	Composition II*	3	_____	THE 105	Spirit-Empowered Living II	2
_____	THE 104	Spirit-Empowered Living I	2	_____	CHE 112	General Chemistry II	3
_____	MAT 201	Calculus I++	4	_____	CHE 112	General Chemistry II Lab	1
_____	CHE 111	General Chemistry I	3	_____	MAT 202	Calculus II	4
_____	CHE 111L	General Chemistry I Lab	1	_____	PHY 111	Physics I++	3
_____	EGR 101	Introduction to Engineering	2	_____	PHY 111L	Physics I Lab++	1
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 140	Engineering Graphics	2
_____	GEN 150	Intro to Whole Person Education	1	_____	EGR 100	Engineering/Physics Seminar	0
_____	PRFH 070	Swimming Proficiency	0	_____	HPE 155	Health Fitness	1
			16				17
SOPHOMORE Semester 3				SOPHOMORE Semester 4			
_____	MAT 321	Calculus III	4	_____	MAT 211	Differential Equations	3
_____	PHY 112	Physics II	3	_____	EGR 210	Network Analysis I	3
_____	PHY 112L	Physics II Lab	1	_____	EGR 210L	Network Analysis I Lab	1
_____	BIO 111	Introduction to Biology I	3	_____	PHS 223	Human Anatomy	3
_____	BIO 111L	Introduction to Biology I Lab	1	_____	PHS 223L	Human Anatomy Lab	1
_____	_____	Social Science Elective+	3	_____	BLIT 122	Bible II: New Testament	2
_____	BLIT 111	Bible I: Old Testament	2	_____	COM 101	Oral Communication	3
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 100	Engineering/Physics Seminar	0
_____	HPE _____	HPE Activity^	0.5	_____	HPE _____	HPE Activity^	0.5
			17.5				16.5
				SUMMER			
				_____	HUM _____	Humanities Options+++	3
				_____	HUM _____	Humanities Options+++	3
JUNIOR Semester 5				JUNIOR Semester 6			
_____	GEN _____	General Education Elective #	3	_____	COMP 303	Critical Reading and Writing	3
_____	CHEM 211	Organic Chemistry I	3	_____	GEN _____	General Education Elective #	3
_____	CHEM 211L	Organic Chemistry I Lab	1	_____	BE 310	Biomed Engineering Survey OR	3
_____	EE 311	Network Analysis II	3	_____	GOV/HIS _____	Civics Elective**	3
_____	PHS 224	Human Physiology	3	_____	CHE 212	Organic Chemistry II	3
_____	PHS 224L	Human Physiology Lab	1	_____	CHE 212L	Organic Chemistry II Lab	1
_____	EE 321	Electronics I	3	_____	EE 322	Electronics II	3
_____	EE 321L	Electronics I Lab	1	_____	EE 322L	Electronics II Lab	1
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 100	Engineering/Physics Seminar	0
_____	HPE _____	HPE Activity^	0.5	_____	HPE _____	HPE Activity^	0.5
			18.5				17.5
SENIOR Semester 7				SENIOR Semester 8			
_____	MAT 325	Probability and Statistics	3	_____	GOV/HIS _____	Civics Elective** OR	3
_____	EGR 221	Mechanics I: Statics	3	_____	BE 310	Biomedical Engineering Survey	3
_____	EE 360	Electromagnetic Theory	3	_____	EGR 222	Mechanics II: Dynamics	3
_____	EGR 252	Engineering Computational Methods	3	_____	_____ 101	Foreign Language	3
_____	EGR 498	Senior Design and Research I	2	_____	GEN _____	General Education Elective #	3
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 499	Senior Design and Research II	2
_____	HPE 400	Lifelong Wellness^	0.5	_____	EGR 100	Engineering/Physics Seminar	0
			14.5	_____	HPE _____	HPE Activity^	0.5
							14.5

* 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 Trigonometry in semester I should take Calculus I in the spring and Physics I in the summer.

+ PSY 201 Principles of Psychology, MUS 208 Music in World Cultures, SWK 202 Introduction to Social Work, SOC 101 Introduction in Sociology, SOC 201 Marriage and Family, SOC 323 Child and Family in the Social Context, BUS 201 Principles of Economics I, or FIN 244 Personal Financial Planning (recommended)

+++ See list of Humanities (HUM) options on the back.

See list of General Education Electives on the back.

^ HPE courses are 1 credit hour each, but students can petition to take them for .5 credits. Course work remains the same.

** See list of Civics options on the back.

			Credit Hours
General Education			
Introduction to Whole Person Education (GEN 150) Counts as HPE Activity			1
Composition (COMP 102, 303)			6
Oral Communication (COM 101)			3
Humanities (HUM 201*, 202*, 203*, 204*; 333, ART 103, 104, 307; DANP 125; DRAM 215, 304; MUS 300)			6
*At least one course must be chosen from courses marked with asterisks.			
Civics (GOV 101, GOV 103, HIS 110, HIS 111, or HIS 200)			3
Foreign Language (101, 102, 203 or 204)			3
Biblical Literacy (BLIT 111, 122)			4
Theology (THE 104, 105)			4
Quantitative Literacy (MAT 325)			3
Laboratory Science (CHE 111 lecture & lab, PHY 111 lecture & lab)			8
Social Science Elective (Choice of one of the following: PSY 201, MUS 208, SWK 202, SOC 101, SOC 201, SOC 323, BUS 201 or FIN 244-recommended.)			3
Health Science (one course per full-time semester at ORU, including HPE 155 and 400, swimming course or proficiency, and electives.)			4
General Education Electives (GEN 301, 380**, 420**, 434**, 456)			9
**At least one course must be chosen from courses marked with two asterisks.			
General Education Total			57
Major			
EGR	101	Introduction to Engineering	2
EGR	140	Engineering Graphics	2
EGR	210	Network Analysis I (lecture and 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 and lab)	4
EE	322	Electronics II (lecture and lab)	4
EE	360	Electromagnetic Theory	3
EGR	100	Engineering/Physics Seminar	0
CHE	112	General Chemistry II (lecture and lab)	4
CHE	211	Organic Chemistry I (lecture and lab)	4
CHE	212	Organic Chemistry II (lecture and lab)	4
PHY	112	Physics II (lecture and lab)	4
BIO	111	Introduction to Biology I (lecture and lab)	4
PHS	223	Human Anatomy (lecture and lab)	4
PHS	224	Physiology (lecture and lab)	4
Major Total			66
Cognate			
MAT	201	Calculus I	4
MAT	202	Calculus II	4
MAT	211	Differential Equations	3
MAT	321	Calculus III	4
Cognate Total			15
DEGREE TOTAL			138

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