ORAL ROBERTS UNIVERSITY | DEGREE PLAN SHEET 2013-2014 | TOTAL HOURS REQUIRED 137

DEGREE: **Bachelor of Science in Engineering** | **Engineering, Computing, Physics and** | Hours in Major 41

MAJOR: **Engineering—Computer Concentration (EGR/CEC)** | **Mathematics Department** | Hours in Concentration 40

Hours in General Education 56

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	Reading/Writing in Liberal Arts*	3		COM	101	Oral Communication	3
	THE	103	Spirit-Empowered Living	3		HUM	103	Christian Worldview and Culture	3
	MAT	201	Calculus I++	4		MAT	202	Calculus II	4
	CHE	111	General Chemistry I	3		PHY	111	Physics I++	3
	CHE	111	General Chemistry I Lab	1		PHY	111	Physics I Lab++	1
	EGR	101	Introduction to Engineering	2		EGR	140	Engineering Graphics	2
	EGR	100	Engineering/Physics Seminar	0		EGR	100	Engineering/Physics Seminar	0
	GEN	099	Whole Person Assessment	0		HPE	002	Health Fitness II	1
	PRF	070	Swimming Proficiency	0					17
	HPE	001	Health Fitness I	1					
				17					
			SOPHOMORE Semester 3					**SOPHOMORE Semester 4**	
	____	____	Social Sciences Elective+	3		MAT	211	Differential Equations	3
	PHY	112	Physics II	3		EGR	210	Network Analysis I	3
	PHY	112	Physics II Lab	1		EGR	210	Network Analysis I Lab	1
	CSC	111	Introduction to Computing	3		EGR	231	Heat and Thermodynamics	3
	EGR	221	Mechanics I: Statics	3		CSC	255	Data Structures	3
	BLIT	110	Survey of Old Testament Literature	3		CMPE	340	Digital Systems Design	3
	EGR	100	Engineering/Physics Seminar	0		CMPE	340	Digital Systems Design Lab	1
	HPE	____	HPE Activity^	0.5		EGR	100	Engineering/Physics Seminar	0
				16.5		HPE	____	HPE Activity^	0.5
									17.5
					SUMMER				
						BLIT	120	Survey of New Testament Literature	3
						HUM	____	Humanities Options+++	3
			JUNIOR Semester 5					**JUNIOR Semester 6**	
	MAT	321	Calculus of Functions of Several Variables	4		COMP	303	Critical Reading and Writing	3
	HUM	____	Humanities Options+++	3		HUM	____	Humanities Options+++	3
	CMPE	441	Microprocessor Systems Design	3		MAT	____	Math Elective (Upper Division)	3
	EE	321	Electronics I	3		EE	322	Electronics II	3
	EE	321	Electronics I Lab	1		EE	322	Electronics II Lab	1
	____	____	Technical Elective	3		CMPE	443	Computer Architecture	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
			SENIOR Semester 7					**SENIOR Semester 8**	
	HIS	101	American History	3		GOV	101	American Government	3
	EGR	461	EGR Management and Economy	2		PHY	211	Modern Physics	3
	____	____	Technical Elective	3		PHY	211	Modern Physics Lab	1
	____	____	Technical Elective	3		____	____	Technical Elective	3
	EGR	498	Senior Design and Research I	2		____	____	Technical Elective	3
	EGR	100	Engineering/Physics Seminar	0		EGR	499	Senior Design and Research II	2
	HPE	____	HPE Activity^	0.5		EGR	100	Engineering/Physics Seminar	0
				13.5		HPE	____	HPE Activity^	0.5
									15.5

* 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 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

++ Students who need Precalculus in semester I should take Calculus I in the spring and Physics I in the summer.

+++ See list of Humanities (HUM) options 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.

2013-2014

BS in Engineering - Computer Concentration (EGR/CEC)

General Education	**Credit Hours**
Whole Person Assessment (GEN 099)	0
English (COMP 102, 303)	6
Oral Communication (COM 101)	3
Humanities (HUM 103 plus three of the following: HUM 222*, 233*, 244*, 250, 255, 260, 270, 333*, COMP 101) *At least one course must be chosen from courses marked with asterisks.	12
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 (one course per full-time semester at ORU, including HPE 001 and 002, swimming course or proficiency, and activity 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
MAT	____	Elective (upper division)	3
		Cognate Total	**14**
Major			
EGR	100	Engineering/Physics Seminar	0
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	231	Heat and Thermodynamics	3
EGR	461	Engineering Management and Economy	2
EGR	498	Senior Design and Research I	2
EGR	499	Senior Design and Research II	2
PHY	112	Physics II (lecture and lab)	4
CSC	111	Introduction to Computing	3
		Major Total	**27**
		Computer Engineering Concentration (CE)	
PHY	211	Introduction to Modern Physics (lecture and lab)	4
CSC	255	Data Structures	3
CMPE	340	Digital Systems Design (lecture and lab)	4
CMPE	441	Microprocessor Systems Design	3
CMPE	443	Computer Architecture	3
EE	321	Electronics I (lecture and lab)	4
EE	322	Electronics II (lecture and lab)	4
		Choice of five of the following EGR/EE/CMPE elective courses:	15
CMPE	312	Computer Networks and Communications	
CMPE	450	Artificial Intelligence	
EE	311	Network Analysis II	
EE	325	Design with Standard Components	
EE	450	Digital Signal Processing	
		Computer Engineering Concentration Total	**40**
		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 one activity course per full-time semester at ORU.