ORAL ROBERTS UNIVERSITY

DEGREE: **Bachelor of Science in Engineering**

MAJOR: **Engineering—Computer Engineering Concentration (EGR/CEC)**

DEGREE PLAN SHEET **2018-2019**

Engineering Department

TOTAL HOURS REQUIRED	130
Hours in Major	27
Hours in Concentration	40
Hours in Cognate	15
Hours in General Education	48

Name _____

Z# _____ Date _____

Telephone _____ Email _____

Advisor _____

SEMESTER TAKEN	COURSE CODE		COURSE TITLE	CREDIT HOURS
			FRESHMAN Semester 1	
	COMP	102	Composition II*	3
	THE	104	Spirit-Empowered Living I	2
	MAT	201	Calculus I++	4
	CHE	111	General Chemistry I	3
	CHE	111L	General Chemistry I Lab	1
	EGR	101	Introduction to Engineering	2
	EGR	100	Engineering/Physics Seminar	0
	GEN	150	Intro to Whole Person Education	1
	PRFH	070	Swimming Proficiency	0
				16
			SOPHOMORE Semester 3	
	MAT	321	Calculus III	4
	PHY	112	Physics II	3
	PHY	112L	Physics II Lab	1
	EGR	252	Engineering Computational Methods	3
	EGR	221	Mechanics I: Statics	3
	BLIT	111	Bible I: Old Testament	2
	EGR	100	Engineering/Physics Seminar	0
	HPE	____	HPE Activity^	0.5
				16.5
			JUNIOR Semester 5	
	____	____	Social Sciences Elective+	3
	MAT	325	Probability and Statistics	3
	CMPE	441	Microprocessor Systems Design	3
	EE	321	Electronics I	3
	EE	321L	Electronics I Lab	1
	____	____	Technical Elective	3
	EGR	100	Engineering/Physics Seminar	0
	HPE	____	HPE Activity^	0.5
				16.5
			SENIOR Semester 7	
	GOV/HIS	____	Civics Elective**	3
	HUM	____	Humanities Options+- 3	3
	EGR	461	EGR Management and Economy	2
	____	____	Technical Elective	3
	____	____	Technical Elective	3
	EGR	498	Senior Design and Research I	2
	EGR	100	Engineering/Physics Seminar	0
	HPE	400	Lifelong Wellness^	0.5
				16.5

SEMESTER TAKEN	COURSE CODE		COURSE TITLE	CREDIT HOURS
			FRESHMAN Semester 2	
	COM	101	Oral Communication	3
	THE	105	Spirit-Empowered Living II	2
	MAT	202	Calculus II	4
	PHY	111	Physics I++	3
	PHY	111L	Physics I Lab++	1
	EGR	140	Engineering Graphics	2
	EGR	100	Engineering/Physics Seminar	0
	HPE	155	Health Fitness	1
				16
			SOPHOMORE Semester 4	
	MAT	211	Differential Equations	3
	EGR	210	Network Analysis I	3
	EGR	210L	Network Analysis I Lab	1
	EGR	231	Heat and Thermodynamics	3
	CSC	206	Intermediate Programming	3
	CMPE	340	Digital Systems Design	3
	CMPE	340L	Digital Systems Design Lab	1
	EGR	100	Engineering/Physics Seminar	0
	HPE	____	HPE Activity^	0.5
				17.5
			JUNIOR Semester 6	
	BLIT	122	Bible II: New Testament	2
	COMP	303	Critical Reading and Writing	3
	PHY	211	Introduction to Modern Physics #	3
	PHY	211L	Introduction to Modern Physics Lab#	1
	EE	322	Electronics II	3
	EE	322L	Electronics II Lab	1
	CMPE	443	Computer Architecture	3
	EGR	100	Engineering/Physics Seminar	0
	HPE	____	HPE Activity^	0.5
				16.5
			SENIOR Semester 8	
	____	101	Foreign Language	3
	HUM	____	Humanities Options+++	3
	____	____	Technical Elective	3
	____	____	Technical Elective	3
	EGR	499	Senior Design and Research II	2
	EGR	100	Engineering/Physics Seminar	0
	PRFR	001	FE Exam Proficiency	0
	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.

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

\# Only offered every other year. May be taken in senior year (switched with technical elective.)

BS in Engineering - Computer Engineering Concentration (EGR/CEC) 2018-2019

General Education			**Credit Hours**
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) *At least one course must be chosen from courses marked with asterisks.			6
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
Chemistry (CHE 111 lecture and lab)			4
Physics (PHY 111 lecture and lab)			4
Mathematics (MAT 325)			3
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 Total	**48**
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
PRFR	001	FE Exam Proficiency	0
PHY	112	Physics II (lecture and lab)	4
EGR	252	Engineering Computational Methods	3
		Major Total	**27**
Computer Engineering Concentration (CE)			
PHY	211	Introduction to Modern Physics (lecture and lab)	4
CSC	206	Intermediate Programming	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 technical elective courses:			15
CMPE	312	Computer Networks and Communications	
CMPE	450	Special Topics: Artificial Intelligence	
EE	311	Network Analysis II	
EE	325	Design with Standard Components	
EE	450	Special Topics: Digital Signal Processing	
EGR	330	Control Systems	
CSC	255	Data Structures	
		Computer Engineering Concentration Total	**40**
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	**130**

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