

ORAL ROBERTS UNIVERSITY  
 DEGREE: **Bachelor of Science in Engineering**  
 MAJOR: **Engineering—Computer**  
**Engineering Concentration (EGR/CEC)**

DEGREE PLAN SHEET **2014-2015**  
**Engineering Department**

TOTAL HOURS REQUIRED 137  
 Hours in Major 41  
 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
<b>FRESHMAN Semester 1</b>				<b>FRESHMAN Semester 2</b>			
_____	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 111L	General Chemistry I Lab	1	_____	PHY 111L	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				
<b>SOPHOMORE Semester 3</b>				<b>SOPHOMORE Semester 4</b>			
_____	_____	Social Sciences Elective+	3	_____	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
_____	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 340L	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
				<b>SUMMER</b>			
				_____	BLIT 120	Survey of New Testament Literature	3
				_____	HUM _____	Humanities Options+++	3
<b>JUNIOR Semester 5</b>				<b>JUNIOR Semester 6</b>			
_____	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 321L	Electronics I Lab	1	_____	EE 322L	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
<b>SENIOR Semester 7</b>				<b>SENIOR Semester 8</b>			
_____	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 211L	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.
- + 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)
- ++ 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.

**BS in Engineering - Computer Engineering Concentration (EGR/CEC)**

			<b>Credit Hours</b>
<b>General Education</b>			
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)			4
Chemistry (CHE 111L lab)			
Physics (PHY 111 lecture)			4
Physics (PHY 111L lab)			
Mathematics (MAT 201)			4
American History (HIS 101)			3
American Government (GOV 101)			3
Social Sciences 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, Physical Education, and Recreation (one course per full-time semester at ORU, including HPE 001 and 002, swimming course or proficiency, and electives.)			5
<b>General Education Total</b>			<b>56</b>
<b>Major</b>			
EGR	100	Engineering/Physics Seminar	0
EGR	101	Introduction to Engineering	2
EGR	140	Engineering Graphics	2
EGR	210	Network Analysis I (lecture)	4
EGR	210L	Network Analysis I (lab)	
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
<b>Major Total</b>			<b>27</b>
<b>Computer Engineering Concentration (CE)</b>			
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
<b>Choice of five of the following technical elective courses:</b>			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	
<b>Computer Engineering Concentration Total</b>			<b>40</b>
<b>Cognate</b>			
MAT	202	Calculus II	4
MAT	211	Differential Equations	3
MAT	321	Calculus of Functions of Several variables	4
MAT	—	Elective (upper division)	3
<b>Cognate Total</b>			<b>14</b>
<b>Degree Total</b>			<b>137</b>

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