

EGR/ME

ORAL ROBERTS UNIVERSITY DEGREE PLAN SHEET 2009-2010
 Engineering, Computer Science, Physics & Mathematics Department
 DEGREE: Bachelor of Science in Engineering
 MAJOR: ENGINEERING--Mechanical Concentration

TOTAL HOURS REQUIRED 137
 Hours in Major 41
 Hours in Concentration 40
 Hours in General Education 56

Name _____
 ID _____ Date _____
 Telephone _____ Email _____
 Advisor _____

SEMESTER TAKEN	COURSE CODE	COURSE TITLE	CREDIT HOURS	SEMESTER TAKEN	COURSE CODE	COURSE TITLE	CREDIT HOURS
<u>FRESHMAN Semester 1</u>				<u>FRESHMAN Semester 2</u>			
_____	HPER 001	Health Fitness I	1	_____	HPER 002	Health Fitness II	1
_____	HPER 070	Swimming Proficiency	0	_____	HUM 101	Humanities: Humanitas	3
_____	COMP 102 *	Reading/Writing in Liberal Arts	3	_____	COM 101	Oral Communication	3
_____	THE 103	Charismatic Life & Healing Ministry	3	_____	MAT 202	Calculus II	4
_____	MAT 201 **	Calculus I	4	_____	PHY 111 **	Physics I	3
_____	CHE 111	General Chemistry I	3	_____	PHY 111 **	Physics I Lab	1
_____	CHE 111	General Chemistry I Lab	1	_____	EGR 100	Engineering /Physics Seminar	0
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 140	Engineering Graphics	2
_____	EGR 101	Introduction to Engineering	2				17
_____	GEN 099	Whole Person Assessment	0				
			17				

<u>SOPHOMORE Semester 3</u>				<u>SOPHOMORE Semester 4</u>			
_____	HPER _____	HPER Activity	0.5	_____	HPER _____	HPER Activity	0.5
_____	BLIT 110	Survey of Old Testament Literature	3	_____	BLIT 120	Survey of New Testament Literature	3
_____	MAT 321	Calculus Functions of Several Variables	4	_____	MAT 211	Differential Equations	3
_____	PHY 112	Physics II	3	_____	EGR 100	Engineering/Physics Seminar	0
_____	PHY 112	Physics II Lab	1	_____	EGR 210	Network Analysis I	3
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 210	Network Analysis I Lab	1
_____	EGR 221	Mechanics I: Statics	3	_____	EGR 222	Mechanics II: Dynamics	3
_____	EGR 252	Engineering Computational Methods	3	_____	EGR 231	Heat and Thermodynamics	3
			17.5				16.5
				<u>SUMMER</u>			
				_____	HUM _____	+++ Humanities Options	3

<u>JUNIOR Semester 5</u>				<u>JUNIOR Semester 6</u>			
_____	HPER _____	HPER Activity	0.5	_____	HPER _____	HPER Activity	0.5
_____	_____	Social Sciences Elective	3	_____	COMP 303	Critical Reading and Writing	3
_____	HUM _____	+++ Humanities Options	3	_____	HUM _____	+++ Humanities Options	3
_____	ME 321	Mechanics of Materials	3	_____	MAT _____	Math Elective (Upper Division)	3
_____	ME 331	Applied Thermodynamics	3	_____	ME 381	Principles of Design	3
_____	EGR 100	Engineering/Physics Seminar	0	_____	ME 433	Heat Transfer	3
_____	EGR 330	Control Systems	3	_____	ME 444	Experimental Methods	3
			15.5	_____	EGR 100	Engineering/Physics Seminar	0
							18.5

<u>SENIOR Semester 7</u>				<u>SENIOR Semester 8</u>			
_____	HPER _____	HPER Activity	0.5	_____	HPER _____	HPER Activity	0.5
_____	HIS 101	American History	3	_____	GOV 101	American Government	3
_____	EE 321	Electronic I	3	_____	_____ ++	Technical Elective	3
_____	EE 321	Electronic I Lab	1	_____	ME 441	Fluid Mechanics	3
_____	ME 447	Finite Element Method	3	_____	EGR 100	Engineering/Physics Seminar	0
_____	ME 461	Manufacturing Processes	3	_____	_____ ++	Technical Elective	3
_____	EGR 100	Engineering/Physics Seminar	0	_____	EGR 499	Senior Design & Research II	2
_____	EGR 461	Engineering Management & Economy	2	_____	_____	Participation in Graduation Exercises	0
_____	EGR 498	Senior Design and Research I	2				14.5
			17.5				

KEY

- * If the student is required to enroll in English (COMP 101), Reading and Writing in the Liberal Arts (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 101 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.
- ++ EGR 321 Design of Control Systems, ME 371 Theory of Machines and Mechanisms, or ME 450 Special Topics
- +++ See list of Humanities (HUM) options on the back.

Bachelor of Science in Engineering 2009-2010
Mechanical Engineering Concentration (ME)

<u>General Education</u>			<u>Credit Hours</u>
Whole Person Assessment (GEN 099)			0
English (COMP 102, 303)			6
Oral Communication (COM 101)			3
Humanities (HUM 101 plus three of the following: HUM 222*, 233*, 244*, 250, 255, 260, 270, 301*, 333*, ART 103, ART 104, MUS 300, DRAM 215, 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 (PHS 111 lecture and lab)			4
Mathematics (MAT 201)			4
American History (HIS 101)			3
American Government (GOV 101)			3
Social Sciences Elective (BUS 101 recommended)			3
Health, Physical Education, and Recreation (Health Fitness I & II, swimming course or proficiency, six electives)			5
<u>General Education Total</u>			56
<u>Cognate</u>			
MAT	202	Calculus II	4
MAT	211	Differential Equations	3
MAT	321	Calculus of Functions of Several variables	4
MAT		Elective (upper division)	3
<u>Cognate Total</u>			14
<u>Major</u>			
EGR	100	Engineering /Physics Seminar	0
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	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 & lab)	4
EGR	252	Engineering Computational Methods	3
<u>Major Total</u>			27
<u>Mechanical Engineering Concentration</u>			
EGR	222	Mechanics II: Dynamics	3
EGR	330	Control Systems	3
ME	321	Mechanics of Materials	3
ME	331	Applied Thermodynamics	3
ME	381	Principles of Design	3
ME	433	Heat Transfer	3
ME	441	Fluid Mechanics	3
ME	444	Experiemental Methods	3
ME	447	Finite Element Method	3
ME	461	Manufacturing Processes	3
EE	321	Electronics I	4
<i>Choice of two of the following:</i>			6
EGR	331	Design of Control Systems	
ME	371	Machines and Mechanisms	
ME	450	Special Topics	
<u>Mechanical Engineering Concentration Total</u>			40
<u>DEGREE TOTAL</u>			137

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