ORAL ROBERTS UNIVERSITY DEGREE: Bachelor of Science

MAJOR: Biology (BIO)

DEGREE PLAN SHEET 2013-2014 **Biology and Chemistry Department**

TOTAL HOURS REQUIRED 128 Hours in General Education 55 Hours in Major 37 Hours in Cognate 19 Hours in Electives 17

Name Z No. Date Telephone Email Advisor

COURSE EARNED	COURSE CODE	COURSE TITLE	CREDIT HOURS	COURSE EARNED	COURSE CODE	COURSE TITLE	CREDIT HOURS
	BIO 105 BIO 111 BIO 111 CHE 111 CHE 111 MAT 106/20 COM 102 PRF 070 HPE 001 GEN 099	FRESHMAN Semester 1 Fundamentals of Biology and Chemistry Introductory Biology I Lecture Introductory Biology I Lab General Chemistry I Lecture General Chemistry I Lab Trignometry or Calculus I Reading and Writing in Liberal Arts Swimming Proficiency Health Fitness I Whole Person Assessment	* 3 1 3 1 3-4 3 0 1 0 15-19		BIO 11 BIO 20 CHE 11 CHE 11 COM 10 GOV 10	FRESHMAN Semester 2 Introductory Biology II Lecture Introductory Biology II Lab Methods in Biotechnology General Chemistry II Lecture General Chemistry II Lab Oral Communication American Government Health Fitness II	3 1 1 3 1 3 3 1
	BIO BIO CHE 211 CHE 211 HUM 103 BLIT 110 HPE	SOPHOMORE Semester 3 Biology Elective Lecture Biology Elective Laboratory Organic Chemistry I Lecture Organic Chemistry I Lab Christian Worldview and Culture Survey of Old Testament Literature HPE Activity	3 1 3 1 3 3 0.5		BIO 3°CHE 2°CHE 2°CHE 12°CHE 1	SOPHOMORE Semester 4 12 Ecology or Field Biology Lecture 12 Ecology or Field Biology Laborator 13 Organic Chemistry II Lecture 14 Organic Chemistry II Laboratory 15 Humanities Elective 16 Survey of New Testament Literatur 17 American History 18 HPE Activity	3 1 3
	PHY 101 PHY 101 MAT 332 HUM THE 103 BIO BIO HPE	JUNIOR Semester 5 General Physics I Lecture General Physics I Lab Biostatistics Humanities Elective Spirit-Empowered Living Biology Elective Lecture Biology Elective Laboratory HPE Activity	3 1 3 3 3 3 1 0.5		PHY 10 PHY 10 BIO BIO	JUNIOR Semester 6 Introduction to Biological Research General Physics II Lecture General Physics II Lab Biology Elective Lecture Biology Elective Laboratory Humanities Elective Critical Reading and Writing HPE Activity	1 3 1 3 1 3 3 0.5
	BIO 499	SENIOR Semester 7 Senior Paper Social Sciences Elective General Elective*** General Elective*** Biology Elective Lecture Biology Elective Laboratory HPE Activity	3 3 3 3 1 0.5			SENIOR Semester 8 51 Biology Seminar 56 Bioethics General Elective*** General Elective*** General Elective*** HPE Activity	1 3 3 3 3 3 0.5

^{*} Prerequisite for BIO 111 based on ACT/SAT score
*** Follow recommendations of your advisor. Biochemistry and Chemistry minor are possible choices.

DEGREE PLAN SHEET 2013-2014

Biology and Chemistry Department Biology (BIO) Major

(F)=Fall Semester (S)=Spring Semester

Total Hours Required: 128

GENERAL EDUCATION REQUIREMENTS		MAJOR REQUIREMENTS			
55 Credit Hours Required	55	21 Credit Hours Required	21		
	Credit		Credi		
For the Spirit	Hours	DIO 444 L. L. L. B. L. L.	Hours		
BLIT 110 Survey of Old Testament Literature	3	BIO 111 Introductory Biology I Lecture	3		
BLIT 120 Survey of New Testament Literature	3	BIO 111 Introductory Biology I Laboratory	1		
THE 103 Spirit-Empowered Living	3	BIO 112 Introductory Biology II Lecture	3		
		BIO 112 Introductory Biology II Laboratory	1		
For the Mind		BIO 209 Methods in Biotechnology	1		
GEN 099 Whole Person Assessment PHY 101 General Physics I Lecture*	0	BIO 312 Ecology Lecture (F)**	3		
PHY 101 General Physics I Lecture* PHY 101 General Physics I laboratory*	3 1	BIO 312 Ecology Laboratory** BIO 372 Introduction to Biological Research (F)	1		
PHY 102 General Physics II Lecture*	3	BIO 372 Introduction to Biological Research (F) BIO 451 Biology Seminar (S)	1		
PHY 102 General Physics II Laboratory*	1	BIO 456 Bioethics	3		
	3	BIO 499 Individual Research and Senior Paper (F)	3		
COM 101 Oral Communication COMP 102 Reading and Writing in the Liberal Arts	3	BIO 439 IIIUIVIUUAI Nesearcii anu Senioi Faper (1)	3		
COMP 303 Critical Reading and Writing (S Junior Year		**May be replaced by one of the following field courses (lecture a	nd lah)		
GOV 101 American Government	3	BIO 458 Marine Ecology or AUS course	iiu iab)		
HIS 101 American History	3	AUS 302 Limnology			
MAT 332 Biostatistics	3	AUS 303 Ecological Agriculture			
HUM 103 Christian Worldview and Culture	3	AUS 304 Global Development and Ecological Sustainability			
Humanities Electives (3 required)	9	AUS 311 Field Botany			
Must choose at least one from the following	_	AUS 311 Theid Botally AUS 312 Insect Biology and Ecology			
HUM 222, 233, 244, 333	iist.	AUS 322 Aquatic Biology AUS 322 Aquatic Biology			
Additional options include:		AUS 359 Marine Mammals			
HONR 102; HUM 250, 255, 260, 270; COM	ID 101	AUS 377 Marine Invertebrates			
Social Sciences Elective (1 required)	3	AUS 471 Conservation Biology			
FIN 244; PSY 201; SOC 201	3	AUS 482 Restoration Ecology			
1 11 V 244, F3 1 201, 300 201		Courses with AUS prefix are offered only at AUSABLE Institute			
*Dhysica Land II Lastura and Laboratory may be autotitu	+ - d				
*Physics I and II Lecture and Laboratory may be substitu	iea	MAJOR ELECTIVES			
	 	16 Credit Hours Required	16		
For the Body					
HPE 001 Health Fitness I	1	Choose four from the following courses:			
HPE 002 Health Fitness II	1		16		
PRF 070 Swimming Course or Proficiency	0	BIO 310 Microbiology (lecture and lab) (F) 4	4		
One HPE course per full-time semester at ORU	3	BIO 311 Genetics (lecture and lab) (S)	4		
		BIO 411 Molecular Cell Biology (lecture and lab) (F) 4			
		BIO 421 General and Comparative Physiology (lecture and 14	4		
		BIO 431 Developmental Biology (lecture and lab) (S) 4	4		
		BIO 454 Special Topics (lecture and lab) 4	4		
		BIO 457 Principles of Immunology (lecture and lab) (S) 4	4		
GENERAL ELECTIVES	47.0	COGNATE REQUIREMENTS	4.0		
17 Credit Hours Required	17.0	19 Credit Hours Required	19		
Seek your Advisor's advice.	17	Choose one of the following courses:	3		
Recommended elective include MAT 201,202; CHE 300, 400	''	MAT 106 Trignometry 3			
CHE 454, 457, BIO 200 Cadaver Dissection, PHS 223, 224		MAT 201 Calculus I			
and any upper division biology course.		CHE 111 General Chemistry I (lecture and lab)	т Л		
		CHE 112 General Chemistry II (lecture and lab)	→ 1		
Δ hinchemistry or chemistry minor may be completed		On E 112 Ocheral Onemistry II (Iculuic and Iau)	-		
A biochemistry or chemistry minor may be completed.	d take		1		
Students planning to pursue advanced degrees in biology shoul	d take	CHE 211 Organic Chemistry I (lecture and lab)	4		
			4 4		