ORAL ROBERTS UNIVERSITY
DEGREE: **Bachelor of Science**
MAJOR: **Mathematics (MAT)**

DEGREE PLAN SHEET 2011-2012
Mathematics Major
Engineering, Computer Science, Physics & Mathematics Department

TOTAL HOURS REQUIRED	128
Hours in general education	55
Hours in major	30
Hours in cognate	6
Hours in minor	18
Hours in electives	19

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

SEMESTER TAKEN	COURSE CODE		COURSE TITLE	CREDIT HOURS
			FRESHMAN Semester 1	
	COMP	102	Reading/Writing in Liberal Arts	3
	HUM	101	Humanities: Humanitas	3
	MAT	201	Calculus I	4
	CSC	111	Introduction to Computing	3
	THE	103	Spirit-Empowered Living	3
	GEN	099	Whole Person Assessment	0
	HPE	001	Health Fitness I	1
				17
			SOPHOMORE Semester 3	
	HUM	____	Humanities Options[5]	3
	HIS	101	American History	3
	MAT	207	Discrete Mathematics (Gen Ed)	3
	____	112	Laboratory Science	4
	BLIT	110	Survey of Old Testament Literature	3
	HPE	026	Beginning Swimming[3] **OR**	0.5
	HPE	____ ^	HPE Activity	0.5
				17
			JUNIOR Semester 5	
	MAT	321	Calculus of Functions of Several Variables	4
	____	____	Elective	3
	____	____	Minor	3
	____	____	Elective	3
	____	____	Elective	3
	HPE	____ ^	HPE Activity	0.5
				17
			SENIOR Semester 7	
	MAT	499	Senior Paper/Project	2
	____	____	Minor	3
	____	____	Elective	3
	____	____	Elective	3
	MAT	____	Mathematics Elective	3
	HPE	____ ^	HPE Activity	0.5
				15

SEMESTER TAKEN	COURSE CODE		COURSE TITLE	CREDIT HOURS
			FRESHMAN Semester 2	
	____	111	Laboratory Science[1]	4
	HUM	____	Humanities Options[5]	3
	MAT	202	Calculus II	4
	CSC	255	Data Structures	3
	____	____	Social Sciences Elective[2]	3
	HPE	002	Health Fitness II	1
				18
			SOPHOMORE Semester 4	
	COM	101	Oral Communication	3
	HUM	____	Humanities Options[5]	3
	GOV	101	American Government	3
	MAT	312	Linear and Matrix Algebra	3
	BLIT	120	Survey of New Testament Literature	3
	HPE	____ ^	HPE Activity	0.5
				15.5
			JUNIOR Semester 6	
	COMP	303	Critical Reading & Writing	3
	MAT	211	Differential Equations	3
	____	____	Minor	3
	____	____	Minor	3
	MAT	____	Mathematics Elective	3
	MAT	300	Senior Paper/Project Preparation	1
	HPE	____ ^	HPE Activity	0.5
				16
			SENIOR Semester 8	
	____	____	Minor	3
	____	____	Minor	3
	MAT	____	Mathematics Elective	3
	____	____	Elective	3
	____	____	Elective	1
	HPE	____ ^	HPE Activity	0.5
				13.5

[1]PHY 111 recommended (followed by PHY 112). If science sequence other than Physics 111 and 112 is selected, take Oral Communication in semester 2 and second science class in semester 4.
[2]Choice of one of the following: PSY 201, MUS 208, SWK 202, SOC 101, SOC 201, SOC 323, BUS 201, or FIN 244

[3]If swimming proficiency (PRF 070) NOT yet passed.

[5]See list of Humanities (HUM) options on the back.

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Recommended Laboratory Science General Education Requirement:
BIO 111, 112 (Biology--No prerequisite)
CHE 111, 112 (Chemistry--High School Chemistry prerequisite)
PHY 111, 112 (Physics--Calculus prerequisite/corequisite. This is strongly recommended.)

Student must take two of the following: Advanced Calculus I (MAT 421), Higher Algebra (MAT 401) and Probability and Statistics (MAT 325). (They should be taken as early as possible so the courses will be available as needed.)
Courses above calculus are offered according to the following schedule:

Differential Equations (MAT 211)	Spring of each year	Discrete Mathematics (MAT 207)	Fall of each year
Linear and Matrix Algebra (MAT 312)	Spring of each year	Senior Paper/Proj Prep (MAT 300)	Spring of each year
College Geometry (MAT 313)	Fall of EVEN numbered years	Higher Algebra (MAT 401)	Spring of EVEN numbered years
Elementary Number Theory (MAT 318)		Advanced Calculus I (MAT 421)	Spring of ODD numbered years
Probability and Statistics (MAT 325)	Fall of ODD numbered years	Senior Paper/Project (MAT 499)	Fall of each year

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

B. S. in Mathematics (MAT) 2011-2012

General Education	Credit Hours	Semester to be taken
Whole Person Assessment (GEN 099)	0	1
English (COMP 102, 303)	6	1,6
Oral Communication (COM 101)	3	2,4
[5]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	1, 2, 3, 4
Discrete Mathematics (MAT 207)	3	5
Bible Literature (BLIT 110, 120)	6	1,3,4
Theology (THE 103)	3	1,3,4
Laboratory Science	8	
Choice of one of the following sequences:		
BIO 111, 112 (lecture & lab) **OR**		3, 4
CHE 111, 112 (lecture & lab) **OR**		3, 4
PHY 111, 112 (lecture & lab)		2, 3
American History (HIS 101)	3	3
American Government (GOV 101)	3	4
Social Sciences (Choice of one of the following: PSY 201, MUS 208, SWK 202, SOC 101, SOC 201, SOC 323, BUS 201, or FIN 244)	3	2
Health, Physical Education and Recreation (Health Fitness I and II, swimming course or proficiency and six electives.)**	5	Each
General Education Total	55	
Major		
Calculus I (MAT 201)	4	1
Calculus II (MAT 202)	4	2
Differential Equations (MAT 211)	3	6
Senior Paper/Project Preparation (MAT 300)	1	6
Linear and Matrix Algebra (MAT 312)	3	4
Calculus of Functions of Several Variables (MAT 321)	4	5
Choice of two of the three following courses:	6	
Probability and Statistics (MAT 325) **OR**		6
Higher Algebra (MAT 401) **OR**		6 or 8
Advanced Calculus (MAT 421)		5 or 7
Mathematics Elective (MAT 300-400)[4]	3	5, 7 or 8
Senior Paper/Project (MAT 499)	2	7
[4]NOTE: Biostatistics (MAT 332) does not count toward a major or minor mathematics.		
Major Total	30	
Cognate		
Introduction to Computing (CSC 111)	3	1
Data Structures (CSC 255)	3	2
Cognate Total	6	
Minor	18	5, 6, 7, 8
Electives	19	5, 6, 7, 8
Degree Total	128	

Mathematics Minor (MAT)

SEMESTER TAKEN	COURSE CODE	COURSE TITLE	CREDIT HOURS
_____	MAT 201	Calculus I	4
_____	MAT 202	Calculus II	4
_____	MAT 207	Discrete Mathematics	3
_____	MAT 312	Linear and Matrix Algebra	3
_____	MAT ____	Elective (MAT 300 level or above)	3
	Minor Total		**17**

**After passing HPE 001 and 002, students must take and pass 1 activity course per full-time semester at ORU.