

DEGREE: **Bachelor of Science****Biology and Chemistry Department**

Hours in General Education

55

MAJOR: **Biology**

Hours in Major

37

CONCENTRATION: **Health Professions (HPC)**

Hours in Concentration

8

(Physician Assistant, Physical Therapy, Pharmacy, etc.)

Hours in Cognate

19

Hours in Electives

9

Name _____

Z No. _____

Date _____

Telephone _____

Email _____

Advisor _____

COURSE EARNED	COURSE CODE	COURSE TITLE	CREDIT HOURS	COURSE EARNED	COURSE CODE	COURSE TITLE	CREDIT HOURS
FRESHMAN Semester 1				FRESHMAN Semester 2			
_____	*BIO/CHE 105	Fundamentals of Biology and Chemistry	3	_____	BIO 112	Introductory Biology II Lecture	3
_____	BIO 111	Introductory Biology I Lecture	3	_____	BIO 112	Introductory Biology II Lab	1
_____	BIO 111	Introductory Biology I Lab	1	_____	BIO 290	Methods in Biotechnology	1
_____	CHE 111	General Chemistry I Lecture	3	_____	CHE 112	General Chemistry II Lecture	3
_____	CHE 111	General Chemistry I Lab	1	_____	CHE 112	General Chemistry II Lab	1
_____	MAT 106/201	Trigonometry or Calculus I	3-4	_____	COM 101	Oral Communication	3
_____	COMP 102	Reading/Writing in Liberal Arts	3	_____	GOV 101	American Government	3
_____	*PHP 100	Prehealth Seminar	1	_____	HPE 002	Health Fitness II	1
_____	GEN 099	Whole Person Assessment	0				16
_____	PRF 070	Swimming Proficiency	0				
_____	HPE 001	Health Fitness I	1				
			<u>16-20</u>				

SOPHOMORE Semester 3				SOPHOMORE Semester 4			
_____	BIO _____	Biology Elective Lecture	3	_____	PHS 223	Human Anatomy Lecture	3
_____	BIO _____	Biology Elective Laboratory	1	_____	PHS 223	Human Anatomy Laboratory	1
_____	CHE 211	Organic Chemistry I Lecture	3	_____	BIO 259	Scientific Terminology*	2
_____	CHE 211	Organic Chemistry I Lab	1	_____	CHE 212	Organic Chemistry II Lecture	3
_____	BIO 200	Human Cadaver Dissection*	1	_____	CHE 212	Organic Chemistry II Laboratory	1
_____	HUM 103	Christian Worldview and Culture	3	_____	HUM _____	Humanities Elective	3
_____	BLIT 110	Survey of Old Testament Literature	3	_____	BLIT 120	Survey of New Testament Literature	3
_____	HPE _____	HPE Activity	0.5	_____	HPE _____	HPE Activity	0.5
			<u>15.5</u>				<u>16.5</u>
*Optional but strongly recommended				*Optional but strongly recommended			

JUNIOR Semester 5				JUNIOR Semester 6			
_____	PHY 101	General Physics I Lecture*	3	_____	BIO 372	Introduction to Biological Research	1
_____	PHY 101	General Physics I Lab*	1	_____	PHY 102	General Physics II Lecture**	3
_____	PHS 224	Human Physiology Lecture	3	_____	PHY 102	General Physics II Lab**	1
_____	PHS 224	Human Physiology Laboratory	1	_____	BIO _____	Biology Elective Lecture	3
_____	MAT 332	Biostatistics	3	_____	BIO _____	Biology Elective Laboratory	1
_____	HUM _____	Humanities Elective	3	_____	HUM _____	Humanities Elective	3
_____	THE 103	Spirit-Empowered Living	3	_____	COMP 303	Critical Reading and Writing	3
_____	HPE _____	HPE Activity	0.5	_____	HPE _____	HPE Activity	0.5
			<u>17.5</u>				<u>15.5</u>

Take PCAT, GRE, or other preprofessional exam at the end of junior year

SENIOR Semester 7				SENIOR Semester 8			
_____	BIO 499	Research and Senior Paper	3	_____	BIO 451	Biology Seminar	1
_____	_____	Social Sciences Elective	3	_____	BIO 456	Bioethics	3
_____	BIO _____	Biology Elective Lecture	3	_____	BIO _____	Biology Elective Lecture	3
_____	BIO _____	Biology Elective Laboratory	1	_____	BIO _____	Biology Elective Laboratory	1
_____	BIO 312	Ecology or Field Biology Lecture	3	_____	_____	General Elective***	3
_____	BIO 312	Ecology or Field Biology Laboratory	1	_____	_____	General Elective***	3
_____	HIS 101	American History	3	_____	HPE _____	HPE Activity	0.5
_____	HPE _____	HPE Activity	0.5				14.5
			<u>17.5</u>				

*Prerequisite for BIO 111/CHE 111 based on ACT/SAT score

*** Follow course recommendations of the prehealth advisor for your specific health professions program

DEGREE PLAN SHEET 2014-20105

Biology and Chemistry Department

Biology

Concentration: **Health Professions**

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

GENERAL EDUCATION REQUIREMENTS				MAJOR REQUIREMENTS				21
55 Credit Hours Required				21 Credit Hours Required				Credit Hours
For the Spirit				Credit Hours				3
_____	BLIT	110	Survey of Old Testament Literature	_____	BIO	111	Introductory Biology I Lecture	1
_____	BLIT	120	Survey of New Testament Literature	_____	BIO	111	Introductory Biology I Laboratory	3
_____	THE	103	Spirit-Empowered Living	_____	BIO	112	Introductory Biology II Lecture	1
For the Mind				_____	BIO	112	Introductory Biology II Laboratory	3
_____	GEN	099	Whole Person Assessment	_____	BIO	290	Methods in Biotechnology	1
_____	PHY	101	General Physics I Lecture*	_____	BIO	312	Ecology Lecture(F)**	1
_____	PHY	101	General Physics I laboratory*	_____	BIO	312	Ecology Laboratory**	1
_____	PHY	102	General Physics II Lecture*	_____	BIO	372	Introduction to Biological Research(F)	3
_____	PHY	102	General Physics II Laboratory*	_____	BIO	451	Biology Seminar (S)	3
_____	COM	101	Oral Communication	_____	BIO	456	Bioethics	3
_____	COMP	102	Reading and Writing in the Liberal Arts	_____	BIO	499	Individual Research and Senior Paper (F)	
_____	COMP	303	Critical Reading and Writing (S Junior Year)	**May be replaced by one of the following field courses (lecture and lab)				
_____	GOV	101	American Government	BIO 458 Marine Ecology or AUS course				
_____	HIS	101	American History	AUS 302 Limnology				
_____	MAT	332	Biostatistics	AUS 303 Ecological Agriculture				
_____	HUM	103	Christian Worldview and Culture	AUS 304 Global Development and Ecological Sustainability				
_____	_____	_____	Humanities Electives (3 required)	AUS 311 Field Botany				
_____	_____	_____	Must choose at least one from the following list:	AUS 312 Insect Biology and Ecology				
_____	_____	_____	HUM 222, 233, 244, 333	AUS 322 Aquatic Biology				
_____	_____	_____	Additional options include:	AUS 359 Marine Mammals				
_____	_____	_____	HONR 102; HUM 250, 255, 260, 270; COMP 101; MAT 315	AUS 377 Marine Invertebrates				
_____	_____	_____	Social Sciences Elective (1 required)	AUS 471 Conservation Biology				
_____	_____	_____	FIN 244; PSY 201; SOC 201	AUS 482 Restoration Ecology				
*Physics I and II Lecture and Laboratory may be substituted				Courses with AUS prefix are offered only at the Au Sable Institute				16
For the Body				MAJOR ELECTIVES				
_____	HPE	001	Health Fitness I	16 Credit Hours Required				
_____	HPE	002	Health Fitness II	Choose four from the following courses:				
_____	PRF	070	Swimming Course or Proficiency	_____	BIO	310	Microbiology (lecture and lab) (F)	4
_____	_____	_____	One HPE course per full-time semester at ORU	_____	BIO	311	Genetics (lecture and lab) (S)	4
GENERAL ELECTIVES				_____	BIO	411	Molecular Cell Biology (lecture and lab) (S)	4
9 Credit Hours Required				_____	BIO	421	General and Comparative Physiology (lecture/ lab S)	4
_____	_____	_____	_____	_____	BIO	431	Developmental Biology (lecture and lab) (F)	4
_____	_____	_____	_____	_____	BIO	454	Special Topics (lecture and lab)	4
_____	_____	_____	_____	_____	BIO	457	Principles of Immunology (lecture and lab) (S)	4
_____	_____	_____	_____	_____	_____	_____	_____	8
_____	_____	_____	_____	CONCENTRATION REQUIREMENTS				
_____	_____	_____	_____	8 Credit Hours Required				
_____	_____	_____	_____	_____	PHS	223	Human Anatomy lecture and lab(S)	4
_____	_____	_____	_____	_____	PHS	224	Human Physiology lecture and lab(F)	4
_____	_____	_____	_____					19
_____	_____	_____	_____	COGNATE REQUIREMENTS				
_____	_____	_____	_____	Credit Hours Required				3
_____	_____	_____	_____	Choose one of the following courses:				
_____	_____	_____	_____	_____	MAT	106	Trigonometry	3
_____	_____	_____	_____	_____	MAT	201	Calculus I	4
_____	_____	_____	_____	_____	_____	_____	_____	4
_____	_____	_____	_____	_____	CHE	111	General Chemistry I (lecture and lab)	4
_____	_____	_____	_____	_____	CHE	112	General Chemistry II (lecture and lab)	4
_____	_____	_____	_____	_____	CHE	211	Organic Chemistry I (lecture and lab)	4
_____	_____	_____	_____	_____	CHE	212	Organic Chemistry II (lecture and lab)	4