



**TROY UNIVERSITY**  
**COLLEGE OF ARTS AND SCIENCES RECOMMENDED ACADEMIC PLAN**  
**BACHELOR OF SCIENCE IN BIOLOGY-PROGRAM YEAR 2015-2016**

	TERM 1		TERM 2		TERM 3		TERM 4		TERM 5	
	<b>1<sup>ST</sup> YEAR</b>	ENG 1101/03	3	BIO 1100/LAB	3/1	ENG 1102/04	3	BIO 1101/LAB	3/1	TROY 1101
MTH 1125		4			IS 2241	3	AREA IV SS COURSE	3	AREA IV HIS COURSE	3
TOTAL		7	TOTAL	4	TOTAL	6	TOTAL	7	TOTAL	4
FALL SEMESTER				SPRING SEMESTER				SUMMER SEMESTER		
TROY 1101		1	BIO 1100/LAB	3/1	ENG 1102/04	3	AREA II HUM/FA COURSE	3	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS TERMS OR SEMESTERS AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN	
ENG 1101/03		3	AREA IV SS COURSE	3	BIO 1101/LAB	3/1	IS 2241	3		
MTH 1125		4								
TOTAL			15			TOTAL	13			
<b>2<sup>ND</sup> YEAR</b>	TERM 1		TERM 2		TERM 3		TERM 4		TERM 5	
	CHM 1142/LAB	3/1	AREA II FINE ARTS COURSE	3	BIO 2220/LAB	3/1	CHM 1143/LAB	3/1	MINOR COURSE	3
	AREA II LIT COURSE	3	AREA IV SS COURSE	3	MTH 2210	3			MINOR COURSE	3
	TOTAL	7	TOTAL	6	TOTAL	7	TOTAL	4	TOTAL	6
	FALL SEMESTER				SPRING SEMESTER				SUMMER SEMESTER	
	AREA II LIT COURSE	3	AREA II FINE ARTS COURSE	3	MTH 2210	3	BIO 2220/LAB	3/1	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS TERMS OR SEMESTERS AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN	
	CHM 1142/LAB	3/1	AREA IV SS COURSE	3	MINOR COURSE	3	CHM 1143/LAB	3/1		
MINOR COURSE	3									
TOTAL			16			TOTAL	14			
<b>3<sup>RD</sup> YEAR</b>	TERM 1		TERM 2		TERM 3		TERM 4		TERM 5	
	AREA V PHYSICS/LAB	3/1	CHM 3342/LAB	3/1	AREA V PHYSICS/LAB	3/1	CHM 3343/LAB	3/1	REQ_ZOOLOGY ELEC	3/1
	BIO 2229/LAB	3/1	REQ_BOTANY ELEC	4	BIO 3320/LAB	3/1				
	TOTAL	8	TOTAL	8	TOTAL	8	TOTAL	4	TOTAL	4
	FALL SEMESTER				SPRING SEMESTER				SUMMER SEMESTER	
	AREA V PHYSICS/LAB	3/1	CHM 3342/LAB	3/1	AREA V PHYSICS/LAB	3/1	BIO 3320/LAB	3/1	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS TERMS OR SEMESTERS AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN	
	BIO 2229/LAB	3/1	REQ_BOTANY ELEC	4	CHM 3343/LAB	3/1	REQ_ZOOLOGY ELEC	3/1		
TOTAL			16			TOTAL	16			
<b>4<sup>TH</sup> YEAR</b>	TERM 1		TERM 2		TERM 3		TERM 4		TERM 5	
	REQ_ECOL/ENV ELEC	3/1	REQ_PHY/CELL/MOL ELEC	3/1	MINOR COURSE	3	AREA IV SS COURSE	3	MINOR COURSE	3
	AREA II HUM/FA COURSE	3	MINOR COURSE	3	APPROVED BIO/LAB ELEC	3/1	MINOR COURSE	3	AREA II HUM/FA COURSE	3
					REMEMBER TO FILE YOUR INTENT TO GRADUATE				COURSE	
	TOTAL	7	TOTAL	7	TOTAL	7	TOTAL	6	TOTAL	6
	FALL SEMESTER				SPRING SEMESTER				SUMMER SEMESTER	
	REQ_ECOL/ENV ELEC	3/1	REQ_PHY/CELL/MOL ELEC	3/1	MINOR COURSE	3	AREA IV SS COURSE	3	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS TERMS OR SEMESTERS AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN	
AREA II HUM/FA COURSE	3	AREA IV HIS COURSE	3	APPROVED BIO/LAB ELEC	3/1	MINOR COURSE	3			
MINOR COURSE	3			MINOR COURSE	3					
TOTAL			17			TOTAL	16			

TOTAL PROGRAM 123

**COLLEGE OF ARTS AND SCIENCES RECOMMENDED ACADEMIC PLAN  
BIOLOGY PROGRAM-GENERAL BIOLOGY PROGRAM- PROGRAM YEAR 2015-2016**

**COMPLETE ALL 6 SUB-REQUIREMENTS (62 HOURS)**

**A. AREA I:**

TAKE THE FOLLOWING COURSES:

MINIMUM GRADE OF "C" REQUIRED

ENG-1101 COMP AND MODERN ENGLISH I	3 HOURS
ENG-1102 COMP AND MODERN ENGLISH II	3 HOURS

**B. AREA II:**

TAKE ANY 1000-2000 LEVEL COURSE IN LITERATURE	3 HOURS
TAKE ANY 1000-2000 LEVEL COURSE WITH AN EXPANDED HISTORICAL AND CULTURAL SCOPE IN FINE ARTS, INCLUDING THE DISCIPLINES OF ART, MUSIC, THEATRE, FILM, OR OTHER FINE ARTS AREA.	3 HOURS
TAKE ANY TWO 1000-2000 LEVEL COURSES WITH AN EXPANDED HISTORICAL AND CULTURAL SCOPE IN THE HUMANITIES/FINE ARTS DISCIPLINES, INCLUDING ENGLISH, FOREIGN LANGUAGES, RELIGION, PHILOSOPHY, CLASSICS, THEATRE, MUSIC, DANCE, COMMUNICATION, SIGN LANGUAGE, INTERDISCIPLINARY STUDIES, OR OTHER HUMANITIES/FINE ARTS AREAS.	6 HOURS

**C. AREA III:**

TAKE THE FOLLOWING COURSES:

BIO 1100/L100 PRINCIPLES OF BIOLOGY W/LAB	4 HOURS
CHM 1142/L142 GENERAL CHEMISTRY I W/LAB	4 HOURS
TAKE MTH 1125 CALCULUS I ("C" OR BETTER)	3 HOURS

**D. AREA IV:**

TAKE THE FOLLOWING COURSES:

TAKE ANY 1000-2000 LEVEL COURSE WITH A PRIMARY FOCUS IN HISTORY	3 HOURS
TAKE ANY THREE 1000 2000 LEVEL COURSE FROM THE FOLLOWING SOCIAL SCIENCE DISCIPLINES: ANTHROPOLOGY, BUSINESS, CRIMINAL JUSTICE, ECONOMICS, GEOGRAPHY, HISTORY, HUMAN SERVICES, LEADERSHIP, INTERDISCIPLINARY STUDIES, NURSING, POLITICAL SCIENCE, PSYCHOLOGY, RELIGION, SOCIAL WORK, SOCIOLOGY, OR OTHER SOCIAL SCIENCE AREAS.	9 HOURS

**E. AREA V:**

TAKE THE FOLLOWING COURSES:

BIO 1101/L101 ORGANISMAL BIOLOGY W/LAB	4 HOURS
CHM 1143/L143 GENERAL CHEMISTRY II W/LAB	4 HOURS
IS 2241 COMPUTER CONCEPTS & APPLICATIONS	3 HOURS
TROY 1101 UNIVERSITY ORIENTATION	1 HOUR

**AREA V CONTINUED:**

TAKE ONE PHYSICS SEQUENCE: PHY 2252/LAB GENERAL PHYSICS I AND PHY 2253/LAB GENERAL PHYSICS II OR PHY 2262/LAB GENERAL PHYSICS I WITH CALCULUS AND PHY 2263/LAB GENERAL PHYSICS II WITH CALCULUS	8 HOURS
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EVERY REASONABLE ATTEMPT TO ENSURE ACCURACY HAS BEEN MADE. SOME COURSES (SUCH AS DEVELOPMENTAL OR PRE-REQUISITE COURSES) ARE NOT REFLECTED IN THIS DEGREE MAP. COMPLETION OF DEGREE REQUIREMENTS IS BASED ON THE SPECIFIC CATALOG YEAR FOR EACH STUDENT.  
A MINIMUM OF 120 HOURS IS REQUIRED FOR ALL BACCALAUREATE DEGREE PROGRAMS.  
AT LEAST 50% OF REQUIRED COURSEWORK MUST BE EARNED AT A SENIOR INSTITUTION.  
AT LEAST 25% OF THE CREDIT HOURS REQUIRED FOR THE DEGREE MUST BE COMPLETED IN RESIDENCY WITH TROY UNIVERSITY.  
AT LEAST 12 SEMESTER HOURS OF RESIDENCY MUST BE COMPLETED IN EACH MAJOR FIELD(S) OF STUDY.  
A MINIMUM GPA OF 2.0 OVERALL AND IN THE MAJOR IS REQUIRED TO GRADUATE.  
NOTE: PLEASE CONSULT THE COLLEGE OF ART & SCIENCES OR CURRENT CATALOG FOR OTHER REQUIREMENTS NOT COVERED IN THIS DOCUMENT.  
NOTES: A SEQUENCE IN LITERATURE OR HISTORY IS REQUIRED. WHEN SELECTING COURSEWORK IN AREAS II OR IV, PLEASE CONSIDER THIS REQUIREMENT.



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BIOLOGY PROGRAM-GENERAL BIOLOGY PROGRAM- PROGRAM YEAR 2015-2016**

**BIOLOGY MAJOR/GENERAL CONCENTRATION (24 HOURS)**

MINIMUM 2.0 OVERALL GPA REQUIRED

TAKE THE FOLLOWING COURSES:

BIO 2220/L220 PRIN CELL BIOLOGY W/LAB	4 HOURS
BIO 2229/L229 GENERAL ECOLOGY W/LAB	4 HOURS
BIO 3320/L320 GENETICS W/LAB	4 HOURS
BIO 4484 SENIOR SEMINAR IN BIOLOGICAL & ENVIRONMENTAL SCIENCE	1 HOUR
CHM 3342/L342 ORGANIC CHEMISTRY I W/LAB	4 HOURS
CHM-3343/L343 ORGANIC CHEMISTRY II W/LAB	4 HOURS
MTH-2210 APPLIED STATISTICS	3 HOURS

**BOTANY (4 HOURS)**

TAKE ONE OF THE FOLLOWING BOTANY COURSES WITH ITS CORRESPONDING LAB: 4 HOURS

BIO 3325/L325 PLANT FORM AND FUNCTION W/LAB 4 HOURS

BIO 4425 FIELD BOTANY 4 HOURS

**ZOOLOGY: (4 HOURS)**

TAKE ONE OF THE FOLLOWING ZOOLOGY COURSES WITH ITS CORRESPONDING LAB: 4 HOURS

BIO 3307/L307 INVERTEBRATE ZOOLOGY W/LAB 4 HOURS

BIO 3308/L308 VERTEBRATE ZOOLOGY W/LAB 4 HOURS

BIO 4405/L405 ENTOMOLOGY W/LAB 4 HOURS

BIO 4420 FIELD VERTEBRATE ZOOLOGY 4 HOURS

BIO 4445/L445 ICHTHYOLOGY W/LAB 4 HOURS

BIO 4446/L446 HERPETOLOGY W/LAB 4 HOURS

BIO 4447/L447 ORNITHOLOGY W/LAB 4 HOURS

BIO 4448/L448 MAMMALOLOGY W/LAB 4 HOURS

BIO 4471/L471 PARASITOLOGY W/LAB 4 HOURS

**ECOLOGY/ENVIRONMENTAL: (4 HOURS)**

TAKE ONE OF THE FOLLOWING ECOLOGY/ENVIRONMENTAL COURSES WITH ITS CORRESPONDING LAB: 4 HOURS

BIO 4413/L413 LIMNOLOGY W/LAB 4 HOURS

BIO 4416/L416 MICROBIAL ECOLOGY W/LAB 4 HOURS

BIO 4421/L421 POPULATION ECOLOGY W/LAB 4 HOURS

BIO 4479/L479 ENVIRONMENTAL ASSESSMENT W/LAB 4 HOURS

**PHYSIOLOGY/CELL/MOLECULAR (4 HOURS)**

TAKE ONE OF THE FOLLOWING PHYSIOLOGY/CELL/MOLECULAR BIOLOGY COURSES WITH ITS CORRESPONDING LAB: 4 HOURS

BIO 3347/L347 HUMAN ANATOMY AND PHYSIOLOGY I W/LAB 4 HOURS

BIO 3348/L348 HUMAN ANATOMY AND PHYSIOLOGY II W/LAB 4 HOURS

BIO 3372/L372 MICROBIOLOGY W/LAB 4 HOURS

BIO 3382/L382 IMMUNOLOGY W/LAB 4 HOURS

BIO 3386/L386 HEMATOLOGY W/LAB 4 HOURS

BIO 4414/L414 FOOD MICROBIOLOGY W/LAB 4 HOURS

BIO 4430/L430 APPLIED GENETICS W/LAB 4 HOURS

BIO 4451/L451 TOXICOLOGY W/LAB 4 HOURS

BIO 4480/L480 HISTOLOGY W/LAB 4 HOURS

BIO 4482/L482 MOLECULAR BIOLOGY W/LAB 4 HOURS

**MAJOR ELECTIVES: (16 HOURS)**

TAKE 16 ADDITIONAL HOURS OF BIO OR MB COURSES. THE 16 HOURS CHOSEN SHOULD BE BASED ON STUDENT'S FUTURE PLANS FOR EMPLOYMENT, GRADUATE OR PROFESSIONAL SCHOOL.

NOTE: SPECIALS TOPICS IN BIOLOGY (BIO 4476), GUIDED INDEPENDENT STUDIES AND GUIDED INDEPENDENT RESEARCH (BIO 4491/4492/4493/4494) MAY BE TAKEN FOR A MAXIMUM OF 6 HOURS

**FREE ELECTIVES REQUIREMENT (2 HOURS)**

TAKE 2 SEMESTER HOURS OF FREE ELECTIVE CREDIT. 2 HOURS