

MY DEGREE MAP
COLLEGE OF ARTS AND SCIENCES APPROVED ACADEMIC PLAN
PHYSICS MAJOR – PROGRAM YEAR 2015-16

1 ST YEAR				
FALL SEMESTER	HRS	SPRING SEMESTER	HRS	SUMMER SEMESTER
TROY 1101	1	ENG 1102/04	3	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS 2 SEMESTERS OR COURSES SUCH AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN
ENG 1101/03	3	PHY 2262/LAB	3/1	
MTH 1125	4	MTH 1126	4	
AREA III SCI/LAB COURSE	3/1	AREA II LIT COURSE	3	
AREA IV SS COURSE	3			
TOTAL	15	TOTAL	14	
2 ND YEAR				
FALL SEMESTER	HRS	SPRING SEMESTER	HRS	SUMMER SEMESTER
PHY 2263/LAB	3/1	AREA IV SS COURSE	3	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS 2 SEMESTERS OR COURSES SUCH AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN
REQ MAJ ELEC (PHY 3359/LAB DR)	3/1	PHY 3310/LAB	3/1	
MTH 2227	4	AREA II FINE ARTS COURSE	3	
CS 2250	3	MTH 3364	3	
		MINOR COURSE	3	
TOTAL	17	TOTAL	16	
3 RD YEAR				
FALL SEMESTER	HRS	SPRING SEMESTER	HRS	SUMMER SEMESTER
FREE ELEC	2	REQ MAJ ELEC (PHY 4440 DR)	3	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS 2 SEMESTERS OR COURSES SUCH AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN
PHY 4420	3	REQ MAJ ELEC (PHY 4438 DR)	3	
PHY 4435	3	MINOR COURSE	3	
MINOR COURSE	3	AREA III SCI/LAB COURSE	3/1	
FREE ELEC	3	AREA II HUM/FA COURSE	3	
TOTAL	14	TOTAL	16	
4 TH YEAR				
FALL SEMESTER	HRS	SPRING SEMESTER	HRS	SUMMER SEMESTER
PHY 4445	3	AREA II HUM/FA COURSE	3	SELECT COURSES THAT HAVE NOT BEEN COMPLETED FROM PREVIOUS 2 SEMESTERS OR COURSES SUCH AS PREREQUISITE COURSES OR COURSES TO BE RETAKEN
PHY 3325	3	MINOR COURSE	3	
MINOR COURSE	3	MINOR COURSE	3	
AREA IV HIS COURSE	3	FREE ELEC	3	
AREA IV SS COURSE	3	FREE ELEC	3	
REMEMBER TO FILE YOUR INTENT TO GRADUATE TOTAL	15	TOTAL	15	
MINIMUM HOURS REQUIRED FOR DEGREE TOTAL				120



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COMPLETE ALL 6 SUB-REQUIREMENTS (54 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 3 HOURS

FINE ARTS, INCLUDING THE DISCIPLINES OF ART, MUSIC, THEATRE, FILM, OR OTHER FINE ARTS AREA.

TAKE ANY TWO 1000-2000 LEVEL COURSES WITH AN EXPANDED HISTORICAL AND CULTURAL 6 HOURS

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.

C. AREA III:

TAKE MTH 1125 CALCULUS I ("C" OR BETTER) 4 HOURS

TAKE ANY TWO 1000-2000 LEVEL SCIENCE CLASSES (CLASS AND CORRESPONDING LAB BOTH 8 HOURS

REQUIRED) FROM THE FOLLOWING SCIENCE DISCIPLINES: BIOLOGY, CHEMISTRY, PHYSICS,

PHYSICAL SCIENCE, OR OTHER SCIENCE AREAS. SELECT 2:

BIO-1100/L100, BIO 1101/L101, BIO 2202/L202, BIO 2229/L229, CHM 1115/L115, CHM 1142/L142,

CHM 1143/L143, CHM 2242/L242, PHY 2252/L252, PHY 2253/L253, PHY 2262/L262, PHY 2263/L263,

SCI 2233/L233, SCI 2234/L234.

D. AREA IV:

TAKE THE FOLLOWING COURSES:

ECO 2251 PRINCIPLES OF MACROECONOMICS 3 HOURS

ECO 2252 PRINCIPLES OF MICROECONOMICS 3 HOURS

TAKE ANY 1000-2000 LEVEL COURSE WITH A PRIMARY FOCUS IN HISTORY 3 HOURS

TAKE ONE 1000 2000 LEVEL COURSE FROM THE FOLLOWING SOCIAL SCIENCE 3 HOURS

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.

E. AREA V:

TAKE THE FOLLOWING COURSES:

TROY 1101 UNIVERSITY ORIENTATION 1 HOUR

CS 2250 COMPUTER SCIENCE I 3 HOURS

MTH 1126 CALCULUS II 4 HOURS

PHY 2262/L262 PHYSICS I WITH CALCULUS W/LAB 4 HOURS

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 ARTS & 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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PHYSICS MAJOR (37 HOURS)

MINIMUM 2.0 OVERALL GPA REQUIRED

TAKE THE FOLLOWING COURSES:

MTH 2227 CALCULUS III	4 HOURS
MTH 3364 VECTOR CALCULUS	3 HOURS
PHY 2263/L263 PHYSICS II WITH CALCULUS/LAB	4 HOURS
PHY 3310/L310 MODERN PHYSICS/LAB	4 HOURS
PHY 3325 THERMODYNAMICS	3 HOURS
PHY 4420 MECHANICS	3 HOURS
PHY 4435 ELECTRICITY & MAGNETISM	3 HOURS
PHY 4445 QUANTUM MECHANICS I	3 HOURS

MAJOR ELECTIVES (10 HOURS)

TAKE AN ADDITIONAL 10 HOURS FROM THE FOLLOWING COURSES:

PHY 3320	MATHEMATICAL METHODS FOR PHYSICS	3 HOURS
PHY 3321	EQUATIONS OF MATHEMATICAL PHYSICS	3 HOURS
PHY 3359/L359	OPTICS W/LAB	4 HOURS
PHY 4435	ELECTRICITY AND MAGNETISM	3 HOURS
PHY 4440	DYNAMICS OF PARTICLES & SYSTEMS	3 HOURS
PHY 4446	QUANTUM MECHANICS II	3 HOURS
PHY 4460	SPECIAL RELATIVITY	3 HOURS
PHY 4470	NUCLEAR PHYSICS	3 HOURS
PHY 4475	PARTICLE PHYSICS	3 HOURS
PHY 4478	INTRODUCTION TO GENERAL RELATIVITY	3 HOURS
PHY 4480	INTRODUCTION TO BLACK HOLES & COSMOLOGY	3 HOURS
PHY 4482	STRING THEORY	3 HOURS
PHY 4495	TOPICS IN PHYSICS	3 HOURS
PHY 4491	GUIDED INDEPENDENT RESEARCH	3 HOURS
PHY 4492	GUIDED INDEPENDENT RESEARCH	3 HOURS
PHY 4493	GUIDED INDEPENDENT STUDY	3 HOURS
PHY 4494	GUIDED INDEPENDENT STUDY	3 HOURS

MINOR (18 HOURS)

AT LEAST ONE 18 SEMESTER HOUR MINOR IS REQUIRED COMPLETE THIS DEGREE PROGRAM.
ADDITIONAL MAJORS ARE ALSO ACCEPTABLE.

FREE ELECTIVES REQUIREMENT (11 HOURS)

TAKE 2 SEMESTER HOURS OF FREE ELECTIVE CREDIT. 11 HOURS