



**MY DEGREE MAP**  
**COLLEGE OF SCIENCE AND ENGINEERING**  
**SURVEYING AND GEOMATICS SCIENCES**  
**LAND SURVEYING**  
**ACADEMIC YEAR 2025-2026**

YEAR ONE			
FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
TROY 1101 OR TROY 1105	1	ENGLISH 1102	3
ENGLISH 1101	3	STAT 2210	3
MATH 1125	4	AREA II HUMANITIES OR FINE ARTS	3
LDR 1100	3	AREA IV HISTORY	3
ART 2201	3	FREE ELECTIVE	3
<b>TOTAL SEMESTER HOURS</b>		<b>TOTAL SEMESTER HOURS</b>	
14		15	

YEAR TWO					
THIRD SEMESTER	HOURS	FOURTH SEMESTER	HOURS	SUMMER	HOURS
AREA IV SOCIAL SCIENCE	3	GEM 3330	3	GEM 3395 DR (IF GEM 4499 WILL NOT BE TAKEN IN FOURTH YEAR) (GEM 2220)	1
AREA IV SOCIAL SCIENCE (GEO 2210 DR)	3	GEM L330	1		
GEM 2220	3	GIS 2201	3		
GEM L220	1	COM 2241	3		
PHY 2252	3	GEM 1101	2		
PHY L252	1	PHY 2253	3		
GEM 1100	2	PHY L253	1		
<b>TOTAL SEMESTER HOURS</b>		<b>TOTAL SEMESTER HOURS</b>		<b>TOTAL SEMESTER HOURS</b>	
16		16		1	

YEAR THREE					
FIFTH SEMESTER	HOURS	SIXTH SEMESTER	HOURS	SUMMER	HOURS
GIS 3390	3	GIS 3391	3	GEM 4496 DR (IF GEM 4499 WILL NOT BE TAKEN IN FOURTH YEAR) (GEM 335)	1
GEM 3309	3	GEM 4408	3		
GEM L309	1	GEM 3310	3		
AREA II LITERATURE	3	GEM L310	1		
GEM 3366	3	MTH 2230	3		
MAJOR ELECTIVE	4				
<b>TOTAL SEMESTER HOURS</b>		<b>TOTAL SEMESTER HOURS</b>		<b>TOTAL SEMESTER HOURS</b>	
17		13		1	

YEAR FOUR			
SEVENTH SEMESTER	HOURS	EIGHTH SEMESTER	HOURS
GEM 4409	3	GEM 4407	3
GEM L409	1	GEM L407	1
GEM 3379	3	GEM 4499 (IF CO-OPS TOTALING 2 CREDIT HOURS NOT TAKEN) (GEM 4409)	2
GEM 4410	3	GEM 4490	1
MAJOR ELECTIVE	3	AREA IV SOCIAL SCIENCE	3
FREE ELECTIVE	2	GEM 4405	3
		GEM L405	1
FILE YOUR GRADUATION APPLICATION			
<b>TOTAL SEMESTER HOURS</b>		<b>TOTAL SEMESTER HOURS</b>	
15		14	

**TOTAL PROGRAM HOURS: 120**

AREA I		
ENG 1101	Composition and Modern English I (Minimum grade of C required)	3 Hours
ENG 1102	Composition and Modern English II (Minimum grade of C required)	3 Hours

AREA II		
ART 2201	Introductory Drawing	3 Hours
COM 2241	Fundamentals of Speech	3 Hours
	Any 1000-2000 level course in Literature	3 Hours
	Any one 1000-2000 level courses with an expanded historical and cultural scope in the Humanities/Fine Arts disciplines, including English, Foreign Languages, Nursing, Religion, Philosophy, Classics, Theatre, Music, Dance, Communication, Sign Language, Interdisciplinary Studies, or other Humanities/Fine Arts areas.  When selecting general studies courses in AREA II and/or AREA IV, you must complete a six-hour sequence in Literature or History. The course sequence must be completed in one content area.	3 Hours

AREA III		
MTH 1125	Calculus I (Minimum grade of C required)	4 Hours
<b>Take one Physics sequence from the following:</b>		
PHY 2252 and PHY L252 and PHY 2253 and PHY L253	General Physics I and Lab and General Physics II and Lab	4 Hours
PHY 2262 and PHY L262 and PHY 2263 and PHY L253	Physics I with Calculus and Lab And Physics II with Calculus and Lab	4 Hours

AREA IV		
Any 1000-2000 level course with a primary focus in History.		3 Hours
Three 1000-2000 level courses from the following Social Science disciplines: Anthropology, Business, Criminal Justice, Economics, Education, Finance, Geography, History, Human Services, Hospitality, Sport, and Tourism Management, Leadership, Interdisciplinary Studies, Nutrition, Nursing, Political Science, Psychology, Religion, Social Work, Sociology, or other Social Science areas.  When selecting general studies courses in AREA II and/or AREA IV, you must complete a six-hour sequence in Literature or History. The course sequence must be completed in one content area.		9 Hours

AREA V		
TROY 1101 or TROY 1105	The University Experience Learning Mindset Freshman Seminar	1 Hour 3 Hours
LDR 1100	Introduction to Leadership	3 Hours
GIS 2201	Introduction to Spatial Computing using Python	3 Hours
MTH 2230	Applied Linear Algebra	3 Hours
STAT 2210	Introductory Statistics	3 Hours

<b>SURVEYING &amp; GEOMATICS</b>		
GEM 1100	Computer-Aided Drafting I	2 Hours
GEM 2220	Basics of Surveying	3 Hours
GEM L220	Basics of Surveying Lab	1 Hour
GEM 3330	Advanced Measurement Analysis	3 Hours
GEM L330	Advanced Measurement Analysis Lab	1 Hour
GEM 3366	Photogrammetry and Remote Sensing	3 Hours
GEM 3379	Introduction to Least Squares Adjustment	3 Hours
GIS 3390	Fundamentals of Geographic Information and Analysis	3 Hours
GIS 3391	Application of Geospatial Information Sciences	3 Hours
GEM 4405	Route and Construction Surveying	3 Hours
GEM L405	Route and Construction Surveying Lab	1 Hour
GEM 4408	Geodesy and Geodetics	3 Hours
GEM 4410	Introduction to Global Positions (GPS)	3 Hours
<b>Take an additional 2 semester hours from the following:</b>		
GEM 4499	Geomatics/GIS Projects	2 Hours
GEM 3395 and GEM 4496	Cooperative Work Experience I Cooperative Work Experience II	2 Hours

<b>LAND SURVEYING</b>		
GEM 1101	Computer-Aided Drafting II	2 Hours
GEM 3309	Land Survey Principles	3 Hours
GEM L309	Land Survey Principles Lab	1 Hour
GEM 3310	Land Survey Practice	3 Hours
GEM L310	Land Survey Practice Lab	1 Hour
GEM 4407	Land Development	3 Hours
GEM L407	Land Development Lab	1 Hour
GEM 4409	Hydrology	3 Hours
GEM L409	Hydrology Lab	1 Hour
GEM 4490	Geomatics Capstone	1 Hour
<b>Take an additional 7 semester hours of electives.</b>		
	Electives can be taken from Land Surveying, Geodesy, Photogrammetry, GIS, or Geography courses. Other electives can be taken with permission of advisor, e.g., MTH 2227, MTH 3311, MTH 3331, MTH 4412, MTH 4415, PHY 3359/L359, PHY 4460.	7 Hours

<b>FREE ELECTIVES</b>		
Take 5 semester hours of free electives.		5 Hours

My Degree Map serves as a guide to assist you with the proper sequence and selection of courses. It includes the required coursework and suggested sequence of courses for a particular degree program. It does not replace your program evaluation, which is the official document used to clear students for graduation. 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 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. Please review the current Academic Catalog for other requirements not covered in this document. A sequence in literature or history is required. When selecting coursework in Areas II or IV, please consider this requirement. In order to graduate, students must meet all requirements and file a Graduation Application through the Graduation Overview tab in Self-Service by the deadline posted on the Academic Calendar.

#### **SPECIAL NOTE FOR UNIVERSITY HONORS GLOBAL SCHOLARS**

All students in the UHGS program are required to complete 12 credits of Honors courses, which include HON 1101 (3), HON 2201 (3), HON 3380 (3), and HON CORE 4498 (3). With the approval of the Honors Program Director, the Associate Provost for Academic Affairs, and the relevant academic Dean, these courses may be substituted for certain University General Studies requirements. In general, HON 1101 replaces TROY 1101 in Area V, while HON 2201/HON 3380/HON 4498 replace 9sh of free electives. If the degree program doesn't require free electives, or if the free electives section has been fulfilled, HON 2201/HON 3380/HON 4498 may replace Area II or Area IV credit hours, or major/minor electives in some cases, if approved by the Department Chair and/or Dean of the discipline.