## **ABOUT THE MAJOR**

This degree has as its core a number of fundamental courses in chemistry and allows for students with interests in additional fields to build a broad based curriculum. Combining this degree with a minor or second major prepares students for a variety of career opportunities in addition to laboratory positions and include the following: with business - technical sales; with biology or geology – environmental studies, industrial hygiene; with political science followed by law school – patent law; with education - middle school or high school teaching.

## **ABOUT THIS MAP**

This program map is intended ONLY as a guide for students to plan their course of study. It does NOT replace any information in the Undergraduate Catalog, which is the official guide for completing degree requirements. Use this map to help plan and guide your experience at UWG, including academic, co-curricular, and discovery opportunities. Everyone's experience is different and activities in this map are suggestions. Always consult with your advisors whenever possible for new opportunities and updates.

#### WHERE CAN YOU GO WITH THIS DEGREE?

- Analytical Chemist
- Chemical Engineer
- Geochemist
- Hazardous Waste Chemist
- Organic Chemist
- Pharmacologist
- Quality Control Chemist
- Synthetic Chemist
- Toxicologist
- Water Chemist

### **ADD A CERTIFICATE**

- Atmospheric Science
- Data Analytics
- Forensic Sciences
- Stream Restoration
- Sustainable Business
- Wildlife Ecology

# **CHEMISTRY NON-ACS BUSINESS TRACK / PRECALCULUS START**

Bachelor of Science

60 4h

Visit westga.edu/program-maps for the latest version of this major map.



VISIT WOLFWATCH FOR MORE **INFORMATION.** 



**HAVE A QUESTION?** CHECK IN WITH **YOUR ADVISOR!** 

#### **HONORS COLLEGE**

Consider joining if you have an Overall GPA of 3.2 and earned 15 college credit hours!





### **CORE CREDIT HOURS**

#### **MAJOR CREDIT HOURS**

#### **ELECTIVE CREDIT HOURS**



### **TERM 1: FALL**

C1: ENGL 1101	<b>3</b> CREDIT
English Composition I	HOURS
M: MATH 1113	4 CREDIT
Precalculus	HOURS
I2: XIDS 2002	2 CREDIT
First-Year Seminar	HOURS
F: CHEM 1211 + LAB	4 CREDIT
Principles of Chemistry I	HOURS
<b>S1 OR P</b>	3 CREDIT
World/US History or US Government	HOURS

- MILESTONES:
  COMPLETE ENGL 1101 WITH C OR BETTER.
  COMPLETE CHEM 1211 AND MATH 1113 WITH C OR BETTER

TERM 2: SPRING	
C2: ENGL 1102	<b>3</b> CREDIT
English Composition II	HOURS
T3: MATH 1634	4 CREDIT
Calculus I	HOURS
F: CHEM 1212 + LAB	4 CREDIT
Principles of Chemistry II	HOURS
<b>S2: ECON 2105 OR 2106</b>	3 CREDIT
Principles of Macroeconomics or Principles of Microeconomics	HOURS
MILESTONES: • COMPLETE ENGL 1102, ECONOMICS, AND CAL WITH C OR RETTER	CULUS

- WITH C OR BETTER COMPLETE CHEM 1212 WITH B OR BETTER

16 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS = 30 CREDIT HOURS

CRUSH YOUR Coursework	• Choose Concentration (ACS track recommended).
FIND YOUR PLACE	<ul> <li>Connect with your faculty mentor.</li> <li>Join clubs (Chemistry Association or Emerging Healthcare Leaders recommended).</li> </ul>
BROADEN YOUR Perspectives	• Look at the Chemistry Careers page on the American Chemical Society's webpage.
CONNECT OFF-CAMPUS	• Sign up for Handshake through Career Services.
TAKE CARE OF Yourself	<ul> <li>Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.</li> <li>Find study buddies.</li> <li>Go to events, have fun (balance time between study, work, and fun).</li> </ul>
PAVE YOUR Path	• Look at the Careers page on the American Chemical Society's webpage.

#### TEDM 1. EALL

**YEAR 2** 

TERM 1: FALL			
F: CHEM 2411 + LAB Organic Chemistry I	4 CREDIT HOURS	YOUR Nork	<ul> <li>Take Sophomore Seminar.</li> <li>Complete Organic Chemistry sequence.</li> <li>Complete Analytical Chemistry.</li> <li>Complete other supporting courses (see Advisor to</li> </ul>
T1: PHYS 1111 OR 2211 + LAB Intro Physics I or Principles of Physics I	4 CREDIT HOURS	CRUSH YOUR COURSEWORK	have a clear roadmap).
CHEM 2130 Sophomore Chemistry Seminar	CREDIT HOUR		
F: MATH 1401 Elementary Statistics	3 CREDIT HOURS	۲ ۲	<ul> <li>Join a research group or seek for student employment (workshop leader, laboratory assistant).</li> <li>Attend program/department/college events.</li> </ul>
BUSINESS COURSE MILESTONE: • COMPLETE CHEM 2411 WITH C OR BETTER	3 CREDIT HOURS	FIND YOUR PLACE	<ul> <li>Attend program/department/conege events.</li> <li>Attend senior research presentations and on- campus conferences.</li> <li>Study and hang out in the student lounge (TLC 2116).</li> </ul>
TERM 2: SPRING	ì	BROADEN YOUR Perspectives	<ul> <li>Explore internships or part-time jobs in career-related areas (industry, pharmacy, etc).</li> <li>Explore summer internships or REU programs.</li> <li>Explore volunteer opportunities with a club or in career-related areas.</li> </ul>
CHEM 3422 + LAB Organic Chemistry II	4 CREDIT HOURS	(0	Sign up for Handshake through Career Services.
T2: PHYS 1112 OR 2212 + LAB Intro Physics II or Principles of Physics II	4 CREDIT HOURS		<ul> <li>Create an account in LinkedIn.</li> <li>Talk to alumni guest speakers and make connections.</li> </ul>
S1 OR P World/US History or US Government	3 CREDIT HOURS	OFF.	
<b>BUSINESS COURSE</b>	3 CREDIT HOURS		Talk to your faculty mentor.
MILESTONE: • COMPLETE ORGANIC CHEMISTRY I AND II A AND II WITH C OR BETTER	ND PHYSICS I	TAKE CARE OF Yourself	<ul> <li>Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.</li> <li>Find study buddies.</li> <li>Go to events, have fun (balance time between study, work, and fun).</li> </ul>
15 FALL CREDIT HOURS + 14 SPRING CR = 29 CREDIT HOURS	EDIT HOURS	Pave Your Path	<ul> <li>Write preliminary resume.</li> <li>Seek for resume-building opportunities related to your career goal (employment, research, activities, volunteering).</li> </ul>

TERM 1: FALL			
F: CHEM 2411 + LAB Organic Chemistry I T1: PHYS 1111 OR 2211 + LAB Intro Physics I or Principles of Physics I	4 CREDIT HOURS 4 CREDIT HOURS	crush your coursework	<ul> <li>Take Sophomore Seminar.</li> <li>Complete Organic Chemistry sequence.</li> <li>Complete Analytical Chemistry.</li> <li>Complete other supporting courses (see Advisor to have a clear roadmap).</li> </ul>
CHEM 2130 Sophomore Chemistry Seminar	CREDIT HOUR	0.0	
F: MATH 1401 Elementary Statistics	3 CREDIT HOURS	UR B	<ul> <li>Join a research group or seek for student employment (workshop leader, laboratory assistant).</li> </ul>
BUSINESS COURSE MILESTONE: • COMPLETE CHEM 2411 WITH C OR BETTER	3 CREDIT HOURS	FIND YO PLACI	<ul> <li>Attend program/department/college events.</li> <li>Attend senior research presentations and on- campus conferences.</li> <li>Study and hang out in the student lounge (TLC 2116).</li> </ul>
TERM 2: SPRIN	<u>G</u>	BROADEN YOUR Perspectives	<ul> <li>Explore internships or part-time jobs in career-related areas (industry, pharmacy, etc).</li> <li>Explore summer internships or REU programs.</li> <li>Explore volunteer opportunities with a club or in career-related areas.</li> </ul>
CHEM 3422 + LAB Organic Chemistry II	4 CREDIT HOURS	Ś	<ul> <li>Sign up for Handshake through Career Services.</li> <li>Create an account in LinkedIn.</li> </ul>
T2: PHYS 1112 OR 2212 + LAB Intro Physics II or Principles of Physics II	4 CREDIT HOURS	INNECT CAMPU	<ul> <li>Talk to alumni guest speakers and make connections.</li> </ul>
<b>S1 OR P</b> World/US History or US Government	3 CREDIT HOURS	CC OFF-	
<b>BUSINESS COURSE</b>	3 CREDIT HOURS		Talk to your faculty mentor.
MILESTONE: • COMPLETE ORGANIC CHEMISTRY I AND II AND II WITH C OR BETTER	AND PHYSICS I	TAKE CARE OF YOURSELF	<ul> <li>Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.</li> <li>Find study buddies.</li> <li>Go to events, have fun (balance time between study, work, and fun).</li> </ul>
15 FALL CREDIT HOURS + 14 SPRING C = 29 CREDIT HOURS	REDIT HOURS	PAVE YOUR Path	<ul> <li>Write preliminary resume.</li> <li>Seek for resume-building opportunities related to your career goal (employment, research, activities, volunteering).</li> </ul>

**YEAR 3** 

### **TERM 1: FALL**

CHEM 3310K	4 CREDIT
Analytical Chemistry	HOURS
CHEM 3510	3 CREDIT
Survey of Physical Chemistry	HOURS
<b>I1 OR A</b>	3 CREDIT
Communications or Humanities	HOURS
ELECTIVE	<b>3</b> CREDIT HOURS
<b>BUSINESS COURSE</b>	3 CREDIT HOURS

MILESTONE: • Complete Analytical Chemistry with C or Better

### **TERM 2: SPRING**

CHEM 4711	3 CREDIT
Biochemistry	HOURS
<b>S1 OR P</b>	3 CREDIT
World/US History or US Government	HOURS
CHEM ELECTIVE	3 CREDIT
3000 or 4000 level course	HOURS
ELECTIVE	<b>3</b> CREDIT HOURS
<b>BUSINESS COURSE</b>	<b>3</b> CREDIT HOURS

16 FALL CREDIT HOURS + 15 SPRING CREDIT HOURS = 31 CREDIT HOURS

Crush Your Coursework	<ul> <li>Take Sophomore Seminar.</li> <li>Complete Organic Chemistry sequence.</li> <li>Complete Analytical Chemistry.</li> <li>Complete other supporting courses (see Advisor to have a clear roadmap).</li> </ul>
FIND YOUR PLACE	<ul> <li>Join a research group or seek for student employment (workshop leader, laboratory assistant).</li> <li>Attend program/department/college events.</li> <li>Attend senior research presentations and on- campus conferences.</li> <li>Study and hang out in the student lounge (TLC 2116).</li> </ul>
BROADEN YOUR Perspectives	<ul> <li>Explore internships or part-time jobs in career-related areas (industry, pharmacy, etc).</li> <li>Explore summer internships or REU programs.</li> <li>Explore volunteer opportunities with a club or in career-related areas.</li> </ul>
CONNECT OFF-CAMPUS	<ul> <li>Sign up for Handshake through Career Services.</li> <li>Create an account in LinkedIn.</li> <li>Talk to alumni guest speakers and make connections.</li> </ul>
TAKE CARE OF Yourself	<ul> <li>Talk to your faculty mentor.</li> <li>Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.</li> <li>Find study buddies.</li> <li>Go to events, have fun (balance time between study, work, and fun).</li> </ul>
PAVE YOUR Path	<ul> <li>Write preliminary resume.</li> <li>Seek for resume-building opportunities related to your career goal (employment, research, activities, volunteering).</li> </ul>

# 4 YEAR

#### TEDM 1. EALL

TERM 1: FALL				
CHEM 4610 Inorganic Chemistry	3 CREDIT HOURS		NORK	<ul> <li>Take Senior Seminar.</li> <li>Take senior capstone course(s) and complete a senior project.</li> <li>Complete all required courses for a degree.</li> </ul>
<b>I1 OR A</b> Communications or Humanities	3 CREDIT HOURS		COURSEWORK	
CHEM ELECTIVE 3000 or 4000 level course	3 CREDIT HOURS	Č	50	
ELECTIVE	<b>3</b> CREDIT HOURS			Attend program/department/college events.
<b>BUSINESS COURSE</b>	3 CREDIT HOURS		PLACE	<ul> <li>Attend on-campus conferences.</li> <li>Study and hang out in the student lounge (TLC 2116).</li> </ul>
TERM 2: SPRIN(	5		PERSPECTIVES	• Re-examine career paths with a chemistry degree (ACS Career page, alumni connections, your own aptitude and interest).
		6		
I1 OR A Communications or Humanities	J HOURS		S	<ul> <li>Talk to alumni in a career field of interest, matched by your faculty mentor.</li> </ul>
CHEM 4910L Tools and Applications in Chemical Research and Practice	3 CREDIT HOURS		F-CAMPUS	-,,,,,,,
<b>BUSINESS COURSE</b>	3 CREDIT HOURS		<u>S</u> <u>-</u> <u>H</u>	
ELECTIVE	3 CREDIT HOURS		0	
ELECTIVE	3 CREDIT HOURS		YOURSELF	<ul> <li>Talk to your faculty mentor.</li> <li>Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.</li> <li>Find study buddies.</li> <li>Go to events, have fun (balance time between study, work, and fun).</li> </ul>
15 FALL CREDIT HOURS + 15 SPRING CF = 30 CREDIT HOURS Additional Information: • Business Course: Students must choose a Business Minor.			PATH	<ul> <li>Build hands-on experience through research and/ or internships.</li> <li>Update your resume or CV.</li> <li>Apply for graduate schools, professional school, or jobs.</li> <li>Make sure to get help from Career Services for cover letters, resume, application, and interviews.</li> </ul>

TERM 1: FALL				
CHEM 4610 Inorganic Chemistry	3 CREDIT HOURS		Your Nork	<ul> <li>Take Senior Seminar.</li> <li>Take senior capstone course(s) and complete a senior project.</li> <li>Complete all required courses for a degree.</li> </ul>
<b>I1 OR A</b> Communications or Humanities	3 CREDIT HOURS		crush youf coursewor	
CHEM ELECTIVE 3000 or 4000 level course	3 CREDIT HOURS		CF CF	
ELECTIVE	3 CREDIT HOURS			Attend program/department/college events.
<b>BUSINESS COURSE</b>	3 CREDIT HOURS	I	FIND YOUR PLACE	<ul> <li>Attend on-campus conferences.</li> <li>Study and hang out in the student lounge (TLC 2116).</li> </ul>
TERM 2: SPRIN(	3	l	BROADEN YOUR Perspectives	• Re-examine career paths with a chemistry degree (ACS Career page, alumni connections, your own aptitude and interest).
<b>I1 OR A</b> Communications or Humanities	3 CREDIT HOURS		L S	Talk to alumni in a career field of interest, matched     humour feasible memory
CHEM 4910L Tools and Applications in Chemical Research and Practice	3 CREDIT HOURS		NNECT CAMPU:	by your faculty mentor.
<b>BUSINESS COURSE</b>	3 CREDIT HOURS		CO FF-(	
ELECTIVE	3 CREDIT HOURS		0	
ELECTIVE	3 CREDIT HOURS		TAKE CARE OF Yourself	<ul> <li>Talk to your faculty mentor.</li> <li>Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.</li> <li>Find study buddies.</li> <li>Go to events, have fun (balance time between study, work, and fun).</li> </ul>
15 FALL CREDIT HOURS + 15 SPRING CF = 30 CREDIT HOURS Additional Information: • Business Course: Students must choose a Business Minor.			PAVE YOUR Path	<ul> <li>Build hands-on experience through research and/ or internships.</li> <li>Update your resume or CV.</li> <li>Apply for graduate schools, professional school, or jobs.</li> <li>Make sure to get help from Career Services for cover letters, resume, application, and interviews.</li> </ul>

Business Course: Students must choose a Business Minor. The number of Business courses could vary depending on which minor.