ABOUT THE MAJOR

The B.S. in Chemistry degree offers greater concentration in chemistry than the B.A. degree option and is recommended for those students planning careers in chemical industry or engineering or for those who plan to pursue graduate study. A senior research thesis and seminar is required and designed to introduce students to modern advanced techniques and approaches to chemical research in conjunction with a faculty advisor. The Bachelor of Science with a Major in Chemistry degree (ACS Track) is approved by the Committee on Professional Training of the American Chemical Society (ACS). This formal recognition means that the department has the faculty, curriculum and the instrumentation necessary to provide a quality education for undergraduate students. Graduates of this approved program are certified by the American Chemical Society.

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.

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!

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
- Forensic Sciences
- Stream Restoration
- Wildlife Ecology

HONORS COLLEGE

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

CHEMISTRY

ACS GENERAL TRACK / PRECALCULUS START

Bachelor of Science

60 CORE CREDIT HOURS

42 MAJOR CREDIT HOURS

18 ELECTIVE CREDIT HOURS

UNIVERSITY OF WEST GEORGIA

2025-2026

YEAR 1

TERM 1: FALL

C1: ENGL 1101 — 3 CREDIT HOURS
English Composition I

M: MATH 1113 — 4 CREDIT HOURS
Precalculus

I2: XIDS 2002 — 2 CREDIT HOURS
First-Year Seminar

F: CHEM 1211 + LAB — 4 CREDIT HOURS
Principles of Chemistry I

I1: ORAL COMMUNICATIONS — 3 CREDIT HOURS

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

TERM 2: SPRING

C2: ENGL 1102 — 3 CREDIT HOURS
English Composition II

T3: MATH 1634 — 4 CREDIT HOURS
Calculus I

F: CHEM 1212 + LAB — 4 CREDIT HOURS
Principles of Chemistry II

A: HUMANITIES — 3 CREDIT HOURS

MILESTONES:
- **COMPLETE ENGL 1102 WITH C OR BETTER**
- **COMPLETE CHEMISTRY II 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
- **Connect with your faculty mentor.**
- **Join clubs (Chemistry Association or Emerging Healthcare Leaders recommended).**

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
- **Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.**
- **Find study buddies.**
- **Go to events, have fun (balance time between study, work, and fun).**

PAVE YOUR PATH
- **Look at the Careers page on the American Chemical Society's webpage.**

YEAR 2

TERM 1: FALL

F: CHEM 2411 + LAB — 4 CREDIT HOURS
Organic Chemistry I

F: MATH 2644 — 4 CREDIT HOURS
Calculus II

CHEM 2130 — 1 CREDIT HOUR
Sophomore Chemistry Seminar

T1: PHYS 2211 + LAB — 4 CREDIT HOURS
Introductory Principles of Physics I

P: CITIZENSHIP — 3 CREDIT HOURS

MILESTONE:
- **EXPLORE RESEARCH PROJECTS/PROFESSORS**

TERM 2: SPRING

CHEM 3422 + LAB — 4 CREDIT HOURS
Organic Chemistry II

T2: PHYS 2212 + LAB — 4 CREDIT HOURS
Introductory Principles of Physics II

S: SOCIAL SCIENCE — 3 CREDIT HOURS

ELECTIVE — 3 CREDIT HOURS

MILESTONE:
- **COMPLETE ORGANIC II AND PHYSICS II BY THE END OF YEAR 2.**

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

CRUSH YOUR COURSEWORK
- **Take Sophomore Seminar.**
- **Complete Organic Chemistry sequence.**
- **Complete Analytical Chemistry.**
- **Complete other supporting courses (see Advisor to have a clear roadmap).**

FIND YOUR PLACE
- **Join a research group or seek for student employment (workshop leader, laboratory assistant).**
- **Attend program/department/college events.**
- **Attend senior research presentations and on-campus conferences.**
- **Study and hang out in the student lounge (TLC 2116).**

BROADEN YOUR PERSPECTIVES
- **Explore internships or part-time jobs in career-related areas (industry, pharmacy, etc).**
- **Explore summer internships or REU programs.**
- **Explore volunteer opportunities with a club or in career-related areas.**

CONNECT OFF-CAMPUS
- **Sign up for Handshake through Career Services.**
- **Create an account in LinkedIn.**
- **Talk to alumni guest speakers and make connections.**

TAKE CARE OF YOURSELF
- **Talk to your faculty mentor.**
- **Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.**
- **Find study buddies.**
- **Go to events, have fun (balance time between study, work, and fun).**

PAVE YOUR PATH
- **Write preliminary resume.**
- **Seek for resume-building opportunities related to your career goal (employment, research, activities, volunteering).**

YEAR 3

TERM 1: FALL

CHEM 3310K — 4 CREDIT HOURS
Analytical Chemistry

CHEM 35XX — 3 CREDIT HOURS
Physical Chemistry (see note below)

CHEM 4083 — 1 CREDIT HOUR
Faculty Directed Research

A: HUMANITIES — 3 CREDIT HOURS

ELECTIVE — 3 CREDIT HOURS

MILESTONE:
- **CHEM 3310K MAY BE TAKEN IN YEAR 2 SUMMER**

TERM 2: SPRING

CHEM 4711 — 3 CREDIT HOURS
Biochemistry

CHEM 4330K — 4 CREDIT HOURS
Instrumental Analysis

CHEM 35XX — 3 CREDIT HOURS
Physical Chemistry (see note below)

CHEM 4083 — 1 CREDIT HOUR
Faculty Directed Research

ELECTIVE — 3 CREDIT HOURS

MILESTONE:
- **COMPLETE TWO SEMESTERS CHEM 4083**

14 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS = 28 CREDIT HOURS

Additional Information:
- **Physical Chemistry Courses:** Anywhere you see 35XX above, students can choose between Quantum Chemistry, Chemical Thermodynamics, and Structure, Bonding, & Reactivity with advisor approval/advice.
- **All Other Electives:** Math and Science Electives are preferred. Students should work with their advisor to choose electives that will support and complement their life goals.

CRUSH YOUR COURSEWORK
- Take Sophomore Seminar.
- Complete Organic Chemistry sequence.
- Complete Analytical Chemistry.
- Complete other supporting courses (see Advisor to have a clear roadmap).

FIND YOUR PLACE
- Join a research group or seek for student employment (workshop leader, laboratory assistant).
- Attend program/department/college events.
- Attend senior research presentations and on-campus conferences.
- Study and hang out in the student lounge (TLC 2116).

BROADEN YOUR PERSPECTIVES
- Explore internships or part-time jobs in career-related areas (industry, pharmacy, etc).
- Explore summer internships or REU programs.
- Explore volunteer opportunities with a club or in career-related areas.

CONNECT OFF-CAMPUS
- Sign up for Handshake through Career Services.
- Create an account in LinkedIn.
- Talk to alumni guest speakers and make connections.

TAKE CARE OF YOURSELF
- Talk to your faculty mentor.
- Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.
- Find study buddies.
- Go to events, have fun (balance time between study, work, and fun).

PAVE YOUR PATH
- Write preliminary resume.
- Seek for resume-building opportunities related to your career goal (employment, research, activities, volunteering).

YEAR 4

TERM 1: FALL

CHEM 4610 — 3 CREDIT HOURS
Inorganic Chemistry

CHEM 3550L — 2 CREDIT HOURS
Physical Chemistry Lab

CHEM 4083 — 1 CREDIT HOUR
Faculty Directed Research

ELECTIVE — 4 CREDIT HOURS

CHEM ELECTIVE — 3 CREDIT HOURS

P: CITIZENSHIP — 3 CREDIT HOURS

TERM 2: SPRING

CHEM 4913L — 2 CREDIT HOURS
Advanced Synthesis Laboratory

CHEM 4084 — 1 CREDIT HOUR
Senior Seminar

CHEM 4083 — 1 CREDIT HOUR
Faculty Directed Research

S: SOCIAL SCIENCE — 3 CREDIT HOURS

CHEM ELECTIVE — 3 CREDIT HOURS

ELECTIVE — 3 CREDIT HOURS

ELECTIVE — 3 CREDIT HOURS

MILESTONES:
- **COMPLETE 4 CREDIT HOURS OF RESEARCH (CHEM 4083)**
- **COMPLETE THESIS AND ORAL PRESENTATION (CHEM 4084)**

16 FALL CREDIT HOURS + 16 SPRING CREDIT HOURS = 32 CREDIT HOURS

Additional Information:
- **For Chemistry Electives:** Students are required to choose from: Advanced Organic, Spectroscopy, Materials Chemistry, Green Chemistry, and Physical Biochemistry.
- **All Other Electives:** Math and Science Electives are preferred. Students should work with their advisor to choose electives that will support and complement their life goals.

CRUSH YOUR COURSEWORK
- Take Senior Seminar.
- Take senior capstone course(s) and complete a senior project.
- Complete all required courses for a degree.

FIND YOUR PLACE
- Attend program/department/college events.
- Attend on-campus conferences.
- Study and hang out in the student lounge (TLC 2116).

BROADEN YOUR PERSPECTIVES
- Re-examine career paths with a chemistry degree (ACS Career page, alumni connections, your own aptitude and interest).

CONNECT OFF-CAMPUS
- Talk to alumni in a career field of interest, matched by your faculty mentor.

TAKE CARE OF YOURSELF
- Talk to your faculty mentor.
- Look into on-campus self-care and stress resources especially Campus Center, Health Services, and Counseling Center.
- Find study buddies.
- Go to events, have fun (balance time between study, work, and fun).

PAVE YOUR PATH
- Build hands-on experience through research and/or internships.
- Update your resume or CV.
- Apply for graduate schools, professional school, or jobs.
- Make sure to get help from Career Services for cover letters, resume, application, and interviews.