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.

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

Visit westga.edu/program-maps for the latest version of this major map.
TERM 1: FALL

A1: ENGL 1101
English Composition I 3 Credit Hours

A2: MATH 1113
Precalculus 4 Credit Hours

B2: XIDS 2002
First-Year Seminar 2 Credit Hours

F: CHEM 1211 + LAB
Principles of Chemistry I 4 Credit Hours

B1, C, OR E 3 Credit Hours

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

TERM 2: SPRING

A1: ENGL 1102
English Composition II 3 Credit Hours

D2: MATH 1634
Calculus II 4 Credit Hours

F: CHEM 1212 + LAB
Principles of Chemistry II 4 Credit Hours

B1, C, OR E 3 Credit Hours

MILESTONES:
• COMPLETE ENGL 1102 WITH C OR BETTER.
• COMPLETE CHEMISTRY II WITH C OR BETTER.

TERM 1: FALL

F: CHEM 2411 + LAB
Organic Chemistry I 4 Credit Hours

F: MATH 2644
Calculus II 4 Credit Hours

CHEM 2130
Sophomore Chemistry Seminar 1 Credit Hour

D1: PHYS 2211 + LAB
Introductory Principles of Physics I 4 Credit Hours

B1, C, OR E 3 Credit Hours

MILESTONE:
• EXPLORE RESEARCH PROJECTS/PROFESSORS

TERM 2: SPRING

CHEM 3422 + LAB
Organic Chemistry II 4 Credit Hours

D1: PHYS 2212 + LAB
Introductory Principles of Physics II 4 Credit Hours

B1, C, OR E ELECTIVE 3 Credit Hours

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

CRUSH YOUR COURSEWORK

• Choose Concentration (ADS 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 at the Careers page on the American Chemical Society’s webpage.

PAVE YOUR PATH

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

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TERM 1: FALL
CHEM 3310K
Analytical Chemistry 4 CREDIT HOURS
CHEM 35XX
Physical Chemistry (see note below) 3 CREDIT HOURS
CHEM 4083
Faculty Directed Research 1 CREDIT HOUR
B1, C, OR E
ELECTIVE 3 CREDIT HOURS
MILESTONE: • CHEM 3310K MAY BE TAKEN IN YEAR 2 SUMMER

TERM 2: SPRING
CHEM 4711
Biochemistry 3 CREDIT HOURS
CHEM 4330K
Instrumental Analysis 4 CREDIT HOURS
CHEM 35XX
Physical Chemistry (see note below) 3 CREDIT HOURS
CHEM 4083
Faculty Directed Research 1 CREDIT HOUR
ELECTIVE 3 CREDIT HOURS
MILESTONE: • COMPLETE TWO SEMESTERS CHEM 4083

TERM 3
CHEM 3550L
Inorganic Chemistry 2 CREDIT HOURS
CHEM 4610
Inorganic Chemistry 3 CREDIT HOURS
CHEM 3550L
Physical Chemistry Lab 2 CREDIT HOURS
CHEM 4083
Faculty Directed Research 1 CREDIT HOUR
ELECTIVE 4 CREDIT HOURS
B1, C, OR E
ELECTIVE 3 CREDIT HOURS
MILESTONE: • CHEM 3550L MAY BE TAKEN IN YEAR 2 SUMMER

TERM 4
CHEM 4913L
Advanced Synthesis Laboratory 2 CREDIT HOURS
CHEM 4084
Senior Seminar 1 CREDIT HOUR
CHEM 4083
Faculty Directed Research 1 CREDIT HOUR
B1, C, OR E
CHEM ELECTIVE 3 CREDIT HOURS
ELECTIVE 3 CREDIT HOURS
MILESTONE: • COMPLETE 4 CREDIT HOURS OF RESEARCH (CHEM 4083)
• COMPLETE THESIS AND ORAL PRESENTATION (CHEM 4094)

TERM 1: FALL
• Take Senior Seminar.
• Complete Organic Chemistry sequence.
• Complete Analytical Chemistry.
• Complete other upper-level courses (see Advisor to have a clear roadmap).

TERM 2: SPRING
• Take Sophomore Seminar.
• Complete Organic Chemistry sequence.
• Complete Analytical Chemistry.
• Complete other upper-level courses (see Advisor to have a clear roadmap).

TERM 3
• Attend program/department/collge events.
• Attend on-campus conferences.
• Study and hang out in the student lounge (TLC 2116).

TERM 4
• Take to alumni in a career field of interest, matched by your faculty mentor.

PAVE YOUR PATH
• Complete all required courses for a degree.
• Attend program/department/collge events.
• Attend 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
• Talk to your faculty mentor.
• Link 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).

TAKE CARE OF YOURSELF
• Write preliminary resume.
• Seek for resume-building opportunities related to your career goal (employment, research, activities, volunteering).

PICK YOUR PATH
• Apply for graduate schools, professional school, or internships.
• Apply for graduate schools, professional school, or internships.
• Make sure to get help from Career Services for coursework, resume, application, and interviews.

14 FALL CREDIT HOURS + 14 SPRING CREDIT HOURS = 28 CREDIT HOURS
16 FALL CREDIT HOURS + 16 SPRING CREDIT HOURS = 32 CREDIT HOURS

Additional Information: • Physical Chemistry Courses: Among the three above, students can choose between General Chemistry, Chemical Thermodynamics, and Physical Chemistry. All other Biochemistry and Science Electives are preferred. Students should work with their advisor to choose electives that will support and complement their life goals.

• For Chemistry Electives: Students are required to choose from Advanced Inorganic, Spectroscopy, Materials Chemistry, Green Chemistry, and Physical Chemistry. All other Biochemistry and Science Electives are preferred. Students should work with their advisor to choose electives that will support and complement their life goals.

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