LONGWOOD

COOK–COLE COLLEGE
OF ARTS AND SCIENCES

SAMPLE 4-YEAR PLAN

Chemistry
Teacher Preparation Concentration

FRESHMAN FALL (16 CREDITS) CTZN 110: Inquiry into Citizenship (3) CHEM 111: Fundamentals of Chemistry I (4) CHEM 113: Chemistry Recitation (1) MATH 164: Pre-Calculus (4) EDUC 245: Human Growth & Development (3) SCED 152: Principles of Secondary Ed in Science (1)	**FRESHMAN SPRING (16 CREDITS)** CHEM 211: Organic Chemistry I (3) CHEM 213: Organic Chemistry I Lab (1) CHEM 215: Organic Chemistry Recitation (1) MATH 261: Calculus I (4) EDUC 260: Intro to the Teaching Profession (2) SCED 252: Practicum (2) ENGL 165: Writing & Rhetoric (3)
SOPHOMORE FALL (18 CREDITS) CHEM 212: Organic Chemistry II (3) CHEM 214: Organic Chemistry II Lab (1) MATH 262: Calculus II (4) PHYS 120: College Physics I (4) Pillar: Historical & Contemporary Insights (3) Pillar: Aesthetic Expression (3)	**SOPHOMORE SPRING (17 CREDITS)** CHEM 112: Fundamentals of Chemistry II (4) MATH 171: Statistical Decision Making (3) PHYS 121: College Physics II (4) Pillar: Global Citizenship (3) Perspective Course (3)
JUNIOR FALL (17 CREDITS) CHEM 350: Quantitative Analysis (4) CHEM 370: Inorganic Chemistry (3) CHEM 380: Inorganic Chemistry Lab (1) EDUC 432: Content Area Literacy (3) BIOL 120: Integrative Biology (4) SCED 451: Teaching Secondary Science (2)	**JUNIOR SPRING (17 CREDITS)** CHEM 351: Instrumental Analysis (3) CHEM 302: Intro to Chemical Problem Solving (2) EDUC 487: Classroom Management & System Issues (3) EASC 300: The Dynamic Planet (3) Perspective: Integrating World Languages (3) Perspective Course (3)
SENIOR FALL (16 CREDITS) CHEM 324: Thermodynamics (3) CHEM 325: Thermodynamics Lab (1) EDUC 473: Inquiry into the Classroom Community (3) SPED 389: Survey of Exceptional Children (3) CTZN 410: Symposium for the Common Good (3) Perspective Course (3)	**SENIOR SPRING (12 CREDITS)** SCED 490: Research Methods in Science Ed (3) SCED 482: Directed Teaching (9)

This plan is only an example and does not include all course options. Always consult your advisor before selecting courses.

REV 6/2022

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GRADUATE INFORMATION

Chemistry

AFTER GRADUATION

Students who earn a degree in Chemistry find employment in a variety of settings. We tracked recent graduates of the program, and here's what some of them are doing:

Grad Students, VCU School of Pharmacy and Northeastern University

Chemistry Lab Technician, BWX Technologies, Inc.

Laboratory Chemist, IPAC, Inc.

Pharmacy Technician, CVS Health

Quality Assurance & Medical Screener Supervisor, Octapharma Plasma

Emergency Room Technician, The Queen's Medical Center

COMMON MINORS

Most minors require about 18 credits, or 6 classes. Some of these classes will also count for Core Curriculum requirements, making the addition of a minor as simple as enrolling in one class per semester.

Common minors for students of Chemistry include:

Biology

Earth Science

Health Education

Mathematics

Physics

GRADUATE PROFILE

Corri Calandra, class of 2020

After earning a degree in Chemistry with a concentration in Secondary Education, Corri is now pursuing a PhD in Chemistry at Vanderbilt University in Nashville. A member of the Cormier Honors College and a Hull Education Scholar, Corri served as a Peer Mentor to incoming students and was a member of both Chi Sigma—the chemistry fraternity—and the National Society of Leadership and Success. She also played on Longwood's Division I women's lacrosse team.

Orignially from Sewell, New Jersey, Corri conducted original research as a PRISM undergraduate research scholar, working with Dr. Jonathan White to synthesize novel platinum anticancer agents to increase their target selectivity. PRISM (Perspectives on Research In Science & Mathematics) is an eight-week summer research program for Longwood students modeled after the Research Experiences of Undergraduates (REU) program sponsored by the National Science Foundation.

"One of the aspects of Longwood that I love is the small community and family feel of the university. Longwood truly feels like home away from home, and even in my first year, I made so many lifelong friends and valuable connections with professors."

GRADUATE PROFILE

Bridget Bergquist, class of 2017

Originally from Bristow, Virginia, Bridget entered Longwood as an undeclared student, moving into the Chemistry program during her sophomore year. She minored in Biology and works now as a pharmacy intern as she completes a PharmD at Shenandoah University. Close faculty mentoring, advanced laboratory experiences, and coursework in quantum mechanics, thermodynamics, and biomedical ethics prepared her well for her roles as a pharmacist and community leader.

As an undergraduate, Bridget investigated ways to prevent breast cancer, focusing her research on parabens, which have been known to mimic estrogen. She also tutored other students in organic chemistry and joined Alpha Chi Sigma—the national chemistry fraternity. Outside the classroom and the laboratory, she was a member of Longwood's women's soccer team, which competes in the Big South Conference. She was the recipient of the univeristy's Scholar-Athlete Award and a member of the Big South Presidential Honor Roll.