UNIVERSITY DELL REQUIREMENTS (42 Credits) SEM GR

Core (12 Credits)
COMM 101 Oral Argumentation & Advocacy
ENGL 123W College Writing Workshop

Integrative Seminars NMBR
DELL 100-level First-Year Seminar
DELL 400-level Senior-Year Seminar

Artistic & Creative Thinking* (3 Credits)

Ethics or Civic Engagement* (3 Credits)

Historical Interpretation* (3 Credits)

Language & Intercultural Competence** (6 Credits)

Literary Analysis* (3 Credits)

Living Well* (2 Credits)

Quantitative Reasoning* (3 Credits)

Scientific Literacy* (4 Credits)

Social Science Literacy* (3 Credits)

FREE ELECTIVES*** (24 Credits)

MAJOR REQUIREMENTS (56 Credits) SEM GR

Chemistry Core (50 Credits)
CHEM 111 Fundamentals of Chemistry I
CHEM 112 Fundamentals of Chemistry II
CHEM 221 Organic Chemistry I
CHEM 222 Organic Chemistry II
CHEM 242 Research Methods
CHEM 359 Analytical Chemistry I
CHEM 360 Analytical Chemistry II
CHEM 441 Chemistry Seminar
CHEM 421 Physical Chemistry I
CHEM 422 Physical Chemistry II
MATH 103 Calculus I
PHYS 141 or 161
PHYS 142 or 162

Chemistry Elective* (3 Credits)
Any CHEM course 200+ level or above
BIOM 312 (Forensic Science) also accepted

Research (3 Credits)
CHEM 461 Senior Research
CHEM 462 Senior Research

NOTES
*Refer to class schedule for lists of courses that satisfy University requirements.
**Must take two sequential courses.
***Courses that do not satisfy a major or DELL requirement. Can include coursework for a minor.

Choose one CHEM course 200+ or above including CHEM 206 (environmental chemistry), CHEM 320 (biochemistry), fermentation chemistry or special topics offerings.

Total credits required for graduation: 124 Credits
For graduation with Honors, see Undergraduate Catalog

Course sequencing

If planning a B.S. major in chemistry, a student should select the following:

First year: CHEM 111-112 FR year along with MATH 103 and MATH 104 (if not previously taken in high school).

Second year, a student should select CHEM 221-222 and PHYS 161-162 and CHEM 242W.

Third year: CHEM 359-360 and CHEM elective. It is a great idea to consider an internship or begin a research project.

Fourth year: CHEM 441, CHEM 421-422, CHEM 461-462.
Departmental Faculty:
Priscilla Gannicott, Ph.D.  gannicott@lynchburg.edu
Jason Crumpton, Ph.D.  crumpton.j@lynchburg.edu
Samrat Thapa, Ph.D.  thapa.s@lynchburg.edu
Bill Lokar, Ph.D.  lokar@lynchburg.edu
Stephen Burris, M.Ed.  burris.s@lynchburg.edu

Departmental strengths:

Hands-on access to excellent Instrumentation: Thermo Scientific GC/MS, Thermo Scientific ATR-FTIR, Agilent Technologies MP-AES, Shimadzu HPLC, Cary Eclipse spectrofluorometer, many uv-vis spectrophotometers.

Local Internships: Fleet Laboratories (analytical and in research and development), KDC/One, BWXT radiochemistry, etc.

Professional/Grad schools: Chemistry is an excellent choice for those who want to pursue their graduate education in health-related fields, especially pharmacy and forensic science. We have an excellent track record for placement into professional and or graduate school programs. Students have earned these graduate degrees: PhD, PharmD, DVM, MD, DO, MS forensic chemistry and toxicology, MS environmental engineering.

Student-Faculty Collaborative research: All chemistry faculty are research active. Examples of the most recent projects are as follows: Multi-elemental analysis of wild edible mushrooms using MP/AES, Elemental analysis of legacy sediments in College Lake, Mobilization of calcium across mineralized tissues in yellow perch, Derivatization and analysis of volatile pheromones in Dolomedes trion via GC/MS, Analysis of iron in beer using a cloud-point extraction pre-concentration technique, The relationship between insect visitors and chemical fragrance composition in two Cypripedium parviflorum var. pubescens populations, Abiotic stress and anthocyanins biosynthesis in Arabidopsis thaliana.

Small upper-level class size: A small class translates to faculty who know you well and can help maximize your learning opportunities.

Specialized upper-level courses: fermentation chemistry, environmental chemistry, biochemistry, surface chemistry