

**College of Science
Department of Chemistry
Bachelor of Arts Checksheet
(for students graduating in Calendar Year 2011)**

PART 1: CURRICULUM FOR LIBERAL EDUCATION (CLE) REQUIREMENTS

(CLE requirements and approved courses are available online:

<http://www.cle.prov.vt.edu/guides/index.html>)

(credit hours in parentheses)

- I. Writing and Discourse** (Area 1: 6 credits + ViEWS)
ENGL 1105-1106¹ Freshman English (3) _____, (3) _____
& ViEWS requirement (*Fulfilled with
CHEM 4014 and one of the following: CHEM 3626 or 4994*)²
- II. Ideas, Cultural Traditions, and Values** (Area 2: 6 credits required) (3) _____, (3) _____
(Select from approved CLE courses)
- III. Society and Human Behavior** (Area 3: 6 credits required) (3) _____, (3) _____
(Select from approved CLE courses)
- IV. Scientific Reasoning and Discovery** (Area 4)³
Fulfilled by courses required for degree.
- V. Quantitative and Symbolic Reasoning** (Area 5)⁴
Fulfilled by courses required for degree.
- VI. Creativity and Aesthetic Experience** (Area 6: 3 credits required) (3) _____
(Select from approved CLE courses; must be a three-credit course.)
- VII. Critical Issues in a Global Context** (Area 7: 3 credits required) (3) _____
(Select from approved CLE courses)

PART 1: (CLE) credit hour requirement:

24 credits

PART 2: COLLEGE AND DEPARTMENT REQUIREMENTS

- I. Chemistry Courses** (34 credits)
- CHEM 1055-1056¹ General Chemistry for Majors (4) _____, (4) _____
CHEM 1065-1066¹ General Chemistry for Majors lab (1) _____, (1) _____
CHEM 2154¹ Analytical Chemistry for Majors (4) _____
CHEM 2164¹ Analytical Chemistry for Majors lab (1) _____
CHEM 2424 Descriptive Inorganic Chemistry (3) _____
CHEM 2565-2566¹ Principles of Organic Chemistry (3) _____, (3) _____
CHEM 2545-2546¹ Organic Chemistry lab (1) _____, (1) _____
CHEM 4615-4616 Physical Chemistry for Life Sciences (3) _____, (3) _____
CHEM 3625 Physical Chemistry lab (1) _____
CHEM 4014² Survey of Chemical Literature (1) _____
- II. Mathematics Courses** (12 credits)
- MATH 1015⁵-1016^{1,5} Elementary Calculus I (3) _____, (3) _____
MATH 2015⁶-2016^{1,7} Elementary Calculus II (3) _____, (3) _____
- III. Physics Courses** (8 credits)
- PHYS 2205^{1,8} - 2206⁹ General Physics (3) _____, (3) _____
PHYS 2215^{1,8} - 2216⁹ General Physics Lab (1) _____, (1) _____

IV. Restricted Electives (11 credits)

STAT or CS course	Statistics or Computer Science elective <i>NOT CS 1004</i>	(3) _____
3xxx-4xxx	CHEM/BCHM/BIOC/CHE electives <i>3000-level or higher</i>	(3) _____, (3) _____
CHEM ViEWS ²	Additional ViEWS requirement <i>Select from CHEM 3626, CHEM 4994, or department-approved alternative.</i>	(2) _____

V. FREE ELECTIVES (sufficient to achieve 120 credit graduation requirement or more)

() _____	() _____	() _____	() _____
() _____	() _____	() _____	() _____
() _____	() _____	() _____	() _____
() _____	() _____	() _____	() _____

PART 2: College and department credit hour requirement:**96 credits****NOTES:**

- ¹ For “satisfactory progress towards degree,” these courses and their prerequisites must be completed by the time the student has attempted 72 hours.
- ² CHEM 4014 satisfies part of the University’s ViEWS (Visual Expression, Writing and Speaking) requirement. **Please note that one additional ViEWS course is required.** B.A. majors who wish to complete their ViEWS requirements in Chemistry may enroll in the second semester of Physical Chemistry lab (CHEM 3626) or take three credits of Undergraduate Research with an oral presentation at the Chemistry Undergraduate Symposium.
- ³ PHYS 2206 and PHYS 2216 satisfy CLE Area 4.
- ⁴ MATH 2015 and MATH 2016 satisfy CLE Area 5.
- ⁵ MATH 1205 may be substituted for MATH 1015 and MATH 1016.
- ⁶ MATH 1206 may be substituted for MATH 2015.
- ⁷ MATH 2214 (MATH 1114 and MATH 1206 OR 2015 prerequisite)
OR MATH 2224 (MATH 1224 and MATH 1206 OR 2015 prerequisite)
may be substituted for MATH 2016.
- ⁸ PHYS 2305 (MATH 1205 prerequisite) may be substituted for PHYS 2205 and PHYS 2215.
- ⁹ PHYS 2306 (MATH 1206 prerequisite) may be substituted for PHYS 2206 and PHYS 2216.

Credit hours and GPA requirements: Graduation requires completion of a minimum of 120 credit hours with a GPA of 2.0 or greater for all hours attempted. In addition, students must have an in-major GPA of 2.0 or greater. The in-major GPA is calculated from all chemistry courses except that not more than 6 hours of CHEM 2974, 4974, and 4994 will be included.

Prerequisites: This checksheet has no hidden prerequisites, although some of the courses listed are prerequisites for other courses. Please see your advisor or consult the Undergraduate Course Catalog for more information.

Language study requirement: The College of Science language requirement may be met by (1) completing 3 units of a single foreign or classical language in high school; (2) earning 6 semester hours of college-level foreign or classical language credit or American Sign Language; or (3) receiving credit-by-examination for a foreign or classical language or American Sign Language. (See the Undergraduate Catalog for more information.) Credits to satisfy the Language Study Requirement are in addition to the 120-credit graduation requirement for the Chemistry degree.

Substitutions: Students with chemistry credits due to transferring into the major, taking summer classes, or transferring credits from elsewhere may substitute the non-majors chemistry courses for the majors chemistry courses. Course substitutions must be approved by the Chemistry Department’s Director of Undergraduate Programs.