

**College of Science
Department of Chemistry
Bachelor of Arts Checksheet
(for students graduating in Calendar Year 2010)**

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 1105-1106 ¹ Freshman English | (3) _____, (3) _____ |
| & ViEWS requirement (<i>Fulfilled with</i> | |
| <i>CHEM 4014 and one of the following: CHEM 3626 or 4994</i>) ² | |
| II. Ideas, Cultural Traditions, and Values (Area 2: 6 credits required) | (3) _____ |
| (Select from approved CLE courses) | (3) _____ |
| III. Society and Human Behavior (Area 3: 6 credits required) | (3) _____ |
| (Select from approved CLE courses) | (3) _____ |
| IV. Scientific Reasoning and Discovery (Area 4) ³ | |
| <i>Fulfilled by courses required for degree.</i> | |
| V. Quantitative and Symbolic Reasoning (Area 5) ⁴ | |
| <i>Fulfilled by courses required for degree.</i> | |
| 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 1055-1056 ¹ General Chemistry for Majors | (4) _____, (4) _____ |
| CHEM 1065-1066 ¹ General Chemistry for Majors lab | (1) _____, (1) _____ |
| CHEM 2154 ¹ Analytical Chemistry for Majors | (4) _____ |
| CHEM 2164 ¹ Analytical Chemistry for Majors lab | (1) _____ |
| CHEM 2424 Descriptive Inorganic Chemistry | (3) _____ |
| CHEM 2565-2566 ¹ Principles of Organic Chemistry | (3) _____, (3) _____ |
| CHEM 2545-2546 ¹ Organic Chemistry lab | (1) _____, (1) _____ |
| CHEM 4615-4616 Physical Chemistry for Life Sciences | (3) _____, (3) _____ |
| CHEM 3625 Physical Chemistry lab | (1) _____ |
| CHEM 4014 ² Survey of Chemical Literature | (1) _____ |
| II. Mathematics Courses (12 credits) | |
| MATH 1015-1016 ¹ Elementary Calculus I | (3) _____, (3) _____ |
| MATH 2015-2016 ¹ Elementary Calculus II | (3) _____, (3) _____ |
| III. Physics Courses (8 credits) | |
| PHYS 2205 ¹ - 2206 General Physics | (3) _____, (3) _____ |
| PHYS 2215 ¹ - 2216 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.

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.

Required Courses	Equivalent Substitution
MATH 1015, 1016	MATH 1205
MATH 2015	MATH 1206
MATH 2016	MATH 2214, 2224, or 2514
PHYS 2205, 2215	PHYS 2305
PHYS 2206, 2216	PHYS 2306