

Secondary Teacher Education Program in Science

University of Massachusetts Amherst

CHEMISTRY SUBJECT MATTER KNOWLEDGE WORKSHEET

Name: _____

Undergraduate Institution and Major: _____

Graduate Institution and Program of Study: _____

Please indicate how your course work or other experience satisfies each of the following requirements:

	<i>Course Title and Number</i>	<i>Semester</i>	<i>Year</i>	<i>Grade</i>
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(a) Inorganic chemistry: _____

(b) Organic chemistry: _____

(c) Analytical chemistry: _____

(d) Physical chemistry: _____

(e) Biochemistry

(f) Biology, Physics, _____
Earth Science, and _____
Mathematics _____

(g) Engineering and technical _____
applications of chemistry _____

(h) History and _____
philosophy of science _____

(i) Methods of research _____
in the sciences, _____
computers and lab work: _____

Subject matter requirements have been checked and _____ has
completed the requirements for Initial Licensure in Chemistry at the 8 - 12 grade level.

Licensure Advisor

Date

SUBJECT MATTER KNOWLEDGE

Guidelines for Students Seeking Licensure in High School Chemistry

**Massachusetts Subject Matter Knowledge Requirements for Chemistry (Grade
Level: 8-12)**

- (a) Inorganic chemistry
- (b) Organic chemistry
- (c) Analytical chemistry
- (d) Physical chemistry
- (e) Biochemistry
- (f) Related aspects of biology, physics, earth science, and mathematics, such as statistics and calculus
- (g) Engineering and technical applications of chemistry
- (h) History and philosophy of science
- (i) Methods of research in the sciences, including laboratory techniques and the use of computers

Subject matter knowledge in Chemistry for Initial Licensure can be demonstrated by successful completion of appropriate course work and by passing the MTEL in Chemistry. Normally the course work requirements can be met with a major in Chemistry. Often candidates must take additional courses to fulfill requirements (g), (h) and (i).