

## SCHOOL OF GRADUATE STUDIES

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### MASTER OF ARTS IN TEACHING (MAT) CHEMISTRY

#### Objectives

The Master of Arts in Teaching (MAT) Chemistry, a 37 to 38 credit program, prepares candidates for an initial license as a teacher of chemistry at the secondary level with courses, fieldwork, and research in chemistry in the pedagogy required for teaching roles.

#### Admissions

Visit [salemstate.edu/graduate](http://salemstate.edu/graduate) for admissions requirements, deadlines and prerequisites (if any).

It may be possible to take a limited number of courses prior to formal admission to the program. If you are interested in this option, please contact the graduate program coordinator. If you are accepted into the program, you must meet with the graduate program coordinator to develop a tentative plan of study and discuss any transfer credits. Graduate program coordinator contact information may be found at [salemstate.edu/graduate/programs](http://salemstate.edu/graduate/programs).

#### Program Requirements

The School of Graduate Studies is currently revising this program to bring it into alignment with new Massachusetts licensure regulations. The information on this sheet will serve only as general guidelines.

All candidates must complete

- a minimum of 37-38 credit hours of graduate coursework (described below)
- a thesis based on a chemistry research project

#### Course Requirements

##### Education Core Courses

- |           |   |   |
|-----------|---|---|
| • EDU 808 | The American High School                              | 3 |
| • EDG 705 | Responding to Diversity in the Classroom              | 3 |
| • EDU 709 | Instruction and Assessment in the Secondary Classroom | 3 |
| • EDU 814 | Reading in the Content Areas                          | 3 |

##### Chemistry Core Courses

- |           |   |   |
|-----------|---|---|
| • CHE 715 | Chemistry of the Elements   | 3 |
| • CHE 755 | Analytical Chemistry in the Middle/High School Laboratory (pre-practicum) | 4 |
| • CHE 900 | Seminar   | 1 |

Electives (choose two of the following\*)

- |           |  |   |
|-----------|--|---|
| • CHE 710 | Advanced Topics in Inorganic Chemistry | 3 |
| • CHE 711 | Chemical Bonding                       | 3 |
| • CHE 735 | Electrochemistry                       | 3 |
| • CHE 725 | Topics in Organic and Biochemistry     | 3 |
| • CHE 733 | Physics in Chemistry                   | 3 |

\*Other Graduate Chemistry Elective Courses may be selected with pre-approval of the program coordinator

Content-Based Methods Course

- |           |                                      |   |
|-----------|--------------------------------------|---|
| • BIO 700 | Research Methods in Teaching Science | 3 |
|-----------|--------------------------------------|---|

Chemistry Research Component

- |           |          |   |
|-----------|----------|---|
| • CHE 910 | Research | 3 |
|-----------|----------|---|

Practicum

- |            |   |   |
|------------|---|---|
| • EDU 925C | Practicum Experience in Secondary Education | 6 |
|------------|---|---|

|               |       |
|---------------|-------|
| Total Credits | 37-38 |
|---------------|-------|

**Notes**

Because the Commonwealth of Massachusetts may change educator licensure requirements, you are advised to contact the Department of Elementary and Secondary Education for specific, current licensure requirements. This information may be accessed at [doe.mass.edu](http://doe.mass.edu).

The School of Graduate Studies reserves the right to make changes in program and course requirements, policies and regulations as circumstances dictate. There is no guarantee that any listed course will be offered in any given semester. Therefore, you should meet regularly with your program coordinator to discuss your progress and revise your plan of study as needed.