TEACHING, WITH TEACHER CERTIFICATION IN CHEMISTRY (PRESCHOOL-GRADE 12) AND TEACHER OF STUDENTS WITH DISABILITIES (M.A.T.)

Program Requirements

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<td>Additional Requirements for State Certification</td>
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<td>Speech</td>
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<td>CMST 101</td>
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Physiology and Hygiene

Pass the MSU Health Knowledge Test available through the Center of Pedagogy or have the Undergraduate equivalent course approved by advisor

Additional Requirement

Select one of the following: 3

- EDFD 582 Learning Theories
- FCST 515 Child Development II: Adolescence
- PSYC 560 Advanced Educational Psychology

Program Requirements

Required Courses

- SASE 680 Selected Topics in Curriculum and Teaching 1
- SASE 509 Sociocultural Perspectives on Curriculum and Assessment 3
- SPED 579 Special Education for Students with Disabilities 3
- SPED 586 Educational Planning for Adolescents with Disabilities 3
- SPED 566 Creating Curricular Access for Adolescents with Disabilities 3
- SPED 568 Teaching Methods for Inclusive Education 3
- SPED 588 Positive Behavior Supports for Diverse Learners 3

Graduate Professional Sequence I

- SASE 526 Seminar in Inclusive Pedagogy 3
- SASE 527 Clinical Practice I 3
- SPED 584 Assessment in Special Education and Classroom Practice 3

Graduate Professional Sequence II

- SASE 543 Advanced Seminar in Inclusive Pedagogy 3
- SASE 529 Clinical Practice II 6
- SPED 680 Selected Topics in Special Education 1

Comprehensive Exam

In the term that you will sit for exam, register for the section which matched your major & advisor. Successfully pass exam.

- GRAD CMP Comprehensive Examination 0

Total Credits 44

Teaching Field Requirements

Required Chemistry Courses

- CHEM 120 General Chemistry I 4
- CHEM 121 General Chemistry II 4
- CHEM 230 Organic Chemistry I 3
- CHEM 231 Organic Chemistry II 3
- CHEM 232 Experimental Organic Chemistry I 2
- CHEM 233 Experimental Organic Chemistry II 2
- CHEM 310 Analytical Chemistry 5
- CHEM 311 Instrumental Analysis 4
- CHEM 340 Physical Chemistry I 3
- CHEM 341 Physical Chemistry II 3
- CHEM 370 Biochemistry I 3

Required Mathematics Courses

- MATH 122 Calculus I 4
- MATH 221 Calculus II 4

Required Physics Courses

- PHYS 191 University Physics I 4
- PHYS 192 University Physics II 4

Graduate Content Area Elective

Select one of the following with advisor approval: 3

- CHEM 510 Hazardous Materials Management
- CHEM 520 Advanced Inorganic Chemistry
- CHEM 525 Bioinorganic Chemistry
- CHEM 530 Advanced Organic Chemistry
- CHEM 532 Organic Synthesis
- CHEM 533 Biosynthesis of Natural Products
- CHEM 534 Separation and Analysis
- CHEM 536 Nuclear Magnetic Resonance: Theory and Practice
- CHEM 538 Drug Design in Medicinal Chemistry
- CHEM 540 Advanced Physical Chemistry
- CHEM 542 Quantum Chemistry and Spectroscopy
- CHEM 544 Chemical Thermodynamics and Electrochemistry
- CHEM 546 Chemical Spectroscopy
- CHEM 548 Chemical Kinetics
- CHEM 550 Organometallic Chemistry
- CHEM 570 Advanced Biochemistry
- CHEM 574 Protein Structure
- CHEM 575 Enzyme Kinetics and Mechanisms
- CHEM 576 Lipid Biochemistry
- CHEM 577 Nucleic Acid Biochemistry
- CHEM 578 Biochemistry Laboratory Techniques
- CHEM 579 Biomolecular Assay Development
- CHEM 582 Biochemical Pharmacology
- CHEM 590 Selected Topics-Advanced Chemistry

Methods Course

- BIOL 503 Teaching Science in Secondary Schools 4

Total Credits 59