EARTH SCIENCE, INSTRUCTIONAL CERTIFICATION: TEACHER CERTIFICATION IN EARTH SCIENCE - PRESCHOOL THROUGH GRADE 12 - GRADUATE

Program Requirements

Teaching Field Requirements

Earth Science Core

EAES 105 Physical Geology 4
EAES 220 Mineralogy 4
EAES 240 Historical Geology 4
EAES 302 Structural Geology 3
EAES 320 Igneous Metamorphic Petrology 4
EAES 441 Stratigraphy 3

Additional Earth Science Courses

EAES 201 Understanding Weather and Climate 4
EAES 250 Introduction to Marine Sciences 4
EAES 280 Principles of Land Use 3

Collateral Science Courses

BIOL 113 Principles of Biology II 4
CHEM 120 General Chemistry I 4
CHEM 121 General Chemistry II 4
MATH 116 Calculus A 4
PHYS 193 College Physics I 4
PHYS 194 College Physics II 4
MATH 111 Applied Precalculus 4
or MATH 112 Precalculus Mathematics 4

Teaching Methods

BIOL 503 Teaching Science in Secondary Schools 4

Total Credits 66

Code Title Credits

Additional Requirements for State Certification

Speech

CMST 101 Fundamentals of Speech: Communication Requirement 1 3

Physiology and Hygiene

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

Educational Psychology

EDFD 582 Learning Theories 3
or PSYC 560 Advanced Educational Psychology

Graduate Professional Sequence

Introductory Sequence

EDFD 505 Teaching, Democracy, and Schooling 3
or SASE 505 Teaching, Democracy, and Schooling 3
SASE 518 Technology Integration in the Classroom 1

Diversity and Instructional Sequence

EDFD 509 Sociocultural Perspectives on Curriculum and Assessment 3
or SASE 509 Sociocultural Perspectives on Curriculum and Assessment 3
EDFD 516 Meeting the Needs of English Language Learners 1
or SASE 516 Meeting the Needs of English Language Learners 1
SASE 517 Inclusive Classrooms in Middle and Secondary Schools 1

READ 501 Techniques of Reading Improvement in the Secondary School 3

EDFD 519 Assessment for Authentic Learning 3
or SASE 519 Assessment for Authentic Learning 3

Pedagogical Sequence I

SASE 526 Seminar in Inclusive Pedagogy 3
SASE 527 Clinical Practice I 3

Pedagogical Sequence II

SASE 514 In-Service Graduate Clinical Practice II 2 6
or SASE 529 Clinical Practice II 3
SASE 543 Advanced Seminar in Inclusive Pedagogy 3

Total Credits 36

1 May be completed by examination.
2 SASE 514 is for in-service teachers.

Additional Requirements for State Certification

The following additional requirements must be met prior to student teaching. Upon admission to the program, the student’s submitted transcripts are evaluated to determine if any of these requirements have been fulfilled by previous coursework. In such cases, the requirement(s) appears on the degree audit as being waived.

- CMST 101 or Speech Challenge Exam or documented & approved experience
- Physiology & Hygiene - free test at county office of education or BIOL/HLTH course
- Educational Psychology - EDFD 582 or PSYC 560
- Psychology or equivalent undergraduate course work

Note: Certification requirements are subject to change.