

SCIENCE TEACHING: EARTH SCIENCE 2021-2022

Department of Geography
206 Morris Hall (507) 389-2617

<https://sbs.mnsu.edu/academics/earth-science/>

The State of Minnesota grants science teacher licensure for grades 5-8 general science, 9-12 Chemistry, 9-12 Earth Science, 9-12 Life Science, and 9-12 Physics. Students earning a degree in Earth Science Teaching, Life Science Teaching or Physics Teaching from Minnesota State Mankato will qualify for two licenses (1) 5-8 general science and (2) 9-12 specialty. Students earning a degree in Chemistry Teaching will qualify only for the 9-12 Chemistry license.

The Earth Science Teaching, Life Science Teaching, and Physics Teaching majors require the 31 credit general core. All science teaching majors require a science emphasis that ranges from 27-35 credits of science and science teaching methods courses. In addition, the student must complete a 30 credit professional education component and the 3 credit Drug Education course.

SCIENCE TEACHING: EARTH SCIENCE

Required Science Courses (31 credits)

AST	101	Intro to Astronomy	(3)
BIOL	105	General Biology I	(4)
BIOL	106	General Biology II	(4)
CHEM	201	General Chemistry I	(5)
GEOL	121	Physical Geology	(4)
GEOL	310	Earth & Space Systems	(3)
PHYS	211*	Principles of Physics I	(4)
PHYS	212*	Principles of Physics II	(4)

* PHYS 221, PHYS 222, PHYS 223, PHYS 232 and PHYS 233 may substitute. The additional credit hours will reduce the number of credits in the advanced physics courses.

Required Core Courses (25 credits)

AST	125	Observational Astronomy	(3)
GEOG	217	Weather	(4)
GEOG	315	Geomorphology	(3)
GEOG	410	Climatic Environments	(3)
GEOL	122	Earth History	(4)
GEOL	201	Elements of Mineralogy	(4)
GEOG	464	Teaching Earth Science	(4)
OR			
CHEM	479	Teaching Earth Sciences	(4)

Required Research Courses (1-3 credits)

Choose **ONE** of the following

GEOG	440	Field Studies: Colorado	(3)
GEOG	440	Field Studies: Field Methods	(3)
GEOG	440	Field Studies (with approval)	(1-4)
GEOG	480	Seminar	(1-4)
GEOG	499	Individual Study	(1-3)
GEOL	499	Individual Study	(1-5)

Required Elective Courses (9 credits)

Choose from at least **TWO** departments

AST	102	Intro to the Planets	(3)
AST	104	Intro to Experimental Astronomy	(2)
GEOG	373	Intro to Geographic Info Systems	(4)
GEOG	420	Conservation of Nat.'l Resources	(3)
GEOL	402	Petrology	(4)
GEOL	330	Structural Geology	(4)
GEOL	350	Environmental Geology	(4)
GEOL	450	Hydrogeology	(3)

Required General Education Course (3 credits)

HLTH	240	Drug Education	(3)
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Required Professional Education Courses (30 cr.)

Level 1

KSP 202 may be taken in either Level 1 or Level 2.

KSP	202	Technology Integration in Class.	(2)
KSP	220W	Human Rel. in a Multicultural Soc.	(3)
KSP	222	Intro to the Learner and Learning	(2)

Level 2

KSP	330	Planning and Instruction in the Classroom	(3)
KSP	334	Assessment & Evaluation	(3)

Level 3

KSP	440	Creating Learning Environments to Engage Children, Families and Communities	(3)
KSP	442	Reading, Literacy, and Differentiated Instruction	(3)

Level 4

KSP	464	Professional Seminar	(1)
KSP	477	5-12 Student Teaching	(11)

Minor Required: None

The information listed comes from the University Catalog, for any discrepancies refer to the Catalog.

Revised 3/22/2021