

GEOLOGY FOR SECONDARY TEACHING CERTIFICATION IN EARTH SCIENCE MINOR

Update April 2011

The minor in Geology for Secondary teachers consists of a minimum of 22 credits. Candidates for certification in this minor must pass the Michigan Test for Teacher Certification (MTTC) in Geology/Earth Science (Test #20). You must demonstrate your knowledge in following categories:

Subarea	Approximate % of Questions on Test
1. Foundations of Scientific Inquiry	20%
2. Physical and Historical Geology	20%
3. Oceanography and Freshwater Systems	20%
4. Meteorology	20%
5. Astronomy	20%

You may access a study guide at the MTTC testing site; the courses below have been selected so that you will be well prepared for the test.

The following chart is intended to provide you a guide for scheduling your semesters and for keeping track of your grade point average.

REQUIRED GEOLOGY COURSES (14 credits)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
GEMS 152	The Atmosphere and Environmental Change	4		
GES 203	Historical Geology	4		
GEMS 206	The Night Sky	2		
May choose GES 100 or combination of GES 110 and 111				
GES 100 Planet Earth		4		
OR				
GES 110 Geology in the Field		2		
AND				
GES 111 How the Earth Works		2		

ADVANCED COURSES (must select 8 credits)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
GEMS 201	Evolution of Dinosaurs	2		
GES 243	Mineralogy	4		
GES 244	Petrology	4		
GES 251	Surficial Geology	4		
GES 252	Structural Geology	4		
GES 341	Regional Field Geology	2		
GES 351	Invertebrate Paleontology	4		
GES 430	Environmental Geochemistry	4		
GES 450	Hydrogeology	4		
EDS 453	Sedimentology	4		

A SCIENCE METHODS COURSE - REQUIRED (3 credits)

(The Science methods course is considered pedagogy and will be counted with your education courses for certification.)

SUBJECT/ COURSE	TITLE	CREDIT HOURS	SEMESTER	GRADE
EDUC 331	Teaching of Science in the Secondary School (offered Fall Semester only)	2		
EDUC 332	Teaching of Science in the Secondary School Field Placement (offered Fall Semester only)	1		

This MUST be completed prior to the student teaching semester!

