Syllabus: Historical Geology for Educators

Department of Earth Sciences/MSSE Program

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OPTIONAL: The following geologic dictionary is available from the MSU Bookstore and other textbook outlets. This book is not required, but it would serve you well in this course and throughout your science teaching career:


COURSE GOALS AND LEARNING OUTCOMES

Students will be able to:

☑ Relate physical geology (e.g., plate tectonics, sedimentary geology, the rock cycle) to Earth's history.

☑ Describe the geologic time scale and how it was first established.

☑ Use fossils and geologic principals of uniformitarianism and stratigraphy to interpret local geologic features.

☑ Use data from the fossil record to explain the evidence for evolution.

☑ Use information about evolution and extinction to help predict the impact of changes occurring today.

“LECTURE” and READINGS

Lectures will consist of power point presentations and links to web sites that reinforce learning of course content from your textbook by providing a different perspective on the topics. Lecture and reading are the primary source for course content.

ONLINE DISCUSSIONS

Online discussions are the online equivalent of in-class participation. The quality and quantity of your discussion posts will be self evaluated every Monday and will comprise about 40% of your grade. Please see the Discussion Rubric document for details on grading and suggestions for how to be a valued contributor to online discussions. You will be expected to participate in discussion regularly as well as to contribute substantive comments to receive full credit. Participation EARLY in the week is important, both for the discussions and accurate self-grading.
**WEEKLY REFLECTIONS**

In addition to discussion, you will be expected to complete a weekly reflection. This may be completed at the bottom of your weekly self-assessments. See the self-assessment rubric on D2L for instructions in order to complete this.

**CLASS PROJECT**

Students will be required to produce & present a *lesson plan* that is tailored for their specific classroom. The lesson plan should present material from the content of this course and should include a summary of the pedagogical strategy behind the plan, specific presentations, activities and assessments. A template will be provided to facilitate consistent presentation of the lesson plan. Class projects will be partly peer assessed.

**COURSE GRADES**

Grades in this course will be earned as follows:

- 30% Discussion
- 10% Weekly reflection
- 30% Class project
- 10% Peer reviews
- 20% Final Exam