

Isotope Geology - Course Outline
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WEEK	TOPIC
1	Nuclear systematics; decay mechanisms
2	Radiation decay and growth; mass spectrometry
3	K/Ar and $^{40}\text{Ar}/^{39}\text{Ar}$ dating
4	Rb/Sr dating; Sr evolution; Sr mixing
5	U/Pb dating
6	Pb/Pb dating
7	U decay series dating
8	MIDTERM EXAM
9	Nd/Sm dating
10	Oxygen and hydrogen in the hydrosphere
11	Oxygen and hydrogen in the lithosphere
12	Carbon isotopes
13	Nitrogen and sulfur isotopes
14	FINAL EXAM

Method of Evaluation:

50% Midterm Exam

50% Final Exam

Method of Assessment:

Exams: The midterm and the non-cumulative final exam will focus on major concepts discussed during the semester through essay-type questions.

Textbook

Faure, G. 1986. Principles of Isotope Geology, 2nd Edition, Wiley