Syllabus for EARTH 381 – Cosmochemistry

Spring 2018

Instructor: Professor Seth A. Jacobson

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Office: TECH F293/4 Hours: TBD or by scheduled appointment via email

Course Website: <https://canvas.northwestern.edu/courses/74986>

Textbook: H. McSween & G. Huss, *Cosmochemistry*, Cambridge University Press, ISBN 978-0-521-87862-3 (2010)

Learning goals:

* Understand the origin of the elements and their nuclides
* Identify and describe the compositions of astrophysical, meteoritic, and planetary materials
* Apply knowledge of chemical and radioactive processes to understand how those processes record the history of a material
* Engage with primary scientific literature, summarize it concisely in writing with proper citations, and present it coherently
* Evaluate cosmogenic theories and hypotheses by building cosmochemical models

Activities and assessments:

* 6 problem sets – 30% of final grade
* 2 labs and associated lab reports – 20% of final grade
* 2 presentations and associated written summary – 20% of final grade
* Final Exam – 20% of final grade
* In-class participation – 10% of final grade

Course Expectations

Attendance: Class attendance is expected. Come prepared having already completed the reading. Exams must be taken at the scheduled times with the only exceptions including registered AccessibleNU accommodations, which should be arranged beforehand, and cases of documented medical/family emergency. Any planned absences should be discussed with the professor well in advance of the absence.

Etiquette: The class will begin at 9:30 am, so be in your seats ready to go at that time. Cell phones should be on silent. Electronic devices may only be used for academic purposes; distracting use may lead to a request for the student to leave the classroom and/or a reduction in the class participation grade. Eating in the classroom is discouraged without seeking permission and, in any case, food should be consumed quietly so as not to distract others. Keep in-class conversations confined to during discussion periods and the topic at-hand.

Group work: While group discussion of reading assignments and other class content is beneficial, all assignments (homeworks, lab reports, presentations, and exams) should be done independently. Copying material from another student, or from a source outside the class without attribution, is a violation of academic integrity rules. Material taken from websites, books, journals, or other sources must have sources clearly cited, and any such material taken verbatim must be clearly identified with quotation marks. Failure to do so constitutes plagiarism.

Due dates: Problem sets and other written work will be due in-class as announced when they are handed out. Students will receive a letter grade reduction per workday late (i.e. before 5 pm on Monday is 10% off final score, before 5 pm on Tuesday is 20% off final score, etc.). After 5 workdays, no credit will be given. Extensions can be granted but only if requested well in advance of the due date.

Academic Integrity: Suspected violations of academic integrity will be reported to the Dean's Office and any infractions will result in no credit and possible course failure. For more information on Northwestern’s academic integrity policies, see http://www.weinberg.northwestern.edu/undergraduate/courses-registration- grades/integrity/.

Accessibility and Accommodation: Any student requesting accommodations related to a disability or other condition is required to register with AccessibleNU (accessiblenu@northwestern.edu; 847-467-5530) and provide professors with an accommodation notification from AccessibleNU, preferably within the first two weeks of class. Student Enrichment Services helps obtain classroom materials for students if affordability is an issue: http://www.northwestern.edu/enrichment/. All information related to accessibility and accommodation will remain confidential.