**Objectives:** Understand how the earth works as a system. Understand why the earth and life are as they are today. Understand and discuss current, major hypotheses about the origin of the universe, earth and life. Realize co-evolution and interaction of earth and life. Understand biological evolution, diversity of life and extinction. Know chronology of major events in the history of life. We will describe:

- First, the components of the system,
- Describe some interactions through time, and
- Finally, reconstruct the history of Earth

**Learning outcomes:**

By the end of this course,...

- you will be able to **understand** and **interpret** evidence for the origin of the universe, Earth, Life.
- you will be able to **describe** various Earth processes.
- you will be able to **integrate** the evolution of Earth and Life.
- you will be able to **implement** observations and **infer** past environments.
- you will be able to **recall** major events in the history of Earth and Life.

Lecture 1 – Introduction
Lecture 2 – Origin of the Solar system, Earth and moon
Lecture 3 – Plate tectonics
Lecture 4 – Earth materials
Lecture 5 – Rock cycle and sedimentary facies
Lecture 6 – Atmosphere and hydrosphere
Lecture 7 – Dating, time sequences
Lecture 8 – Origin of Life and fossils
Lecture 9 – Classification and Systematics
Lecture 10 – Diversity
Lecture 11 – Evolution
Lecture 12 – Extinction
Lecture 13 – Life environments
Lecture 14 – Biogeochemical processes
Lecture 15 – Hadean and Archean
Lecture 16 – Proterozoic
Lecture 17 – Cambrian explosion
Lecture 18 – Paleozoic oceans
Lecture 19 – Paleozoic land
Lecture 20 – P-T Extinction
Lecture 21 – Triassic recovery
Lecture 22 – Cretaceous
Lecture 23 – KT Extinction, Cenozoic
Lecture 24 – Ice Age and the end
Mark breakdown
Midterm – 20%
Online quizzes – 40% (10 worth 4% each)
Final lecture exam – 40%
  - Questions will be multiple choice

People
1011 Quiz Coordinator: Brad McFeeters, BradleyMcFeeters@cmail.carleton.ca
The quiz coordinator will manage the receipt of quizzes through the cuLearn website. The quiz coordinator should be contacted for anything to do with quizzes.

Policies
Missed quizzes: A missed quiz will receive a mark of zero. Missed quizzes will not be permitted for retaking. If a valid document (e.g., doctor’s note) can be provided within 7 days of the missed quiz, the mark of each quiz will be adjusted so that the total value of all completed quizzes remains the same 40%.

Missed midterm: An email alerting to the instructor should be sent as soon as possible if the midterm will be missed (either due to scheduling conflict or illness the day of). Documentation proving the scheduling conflict must be provided as soon as possible. A doctor’s note is required within 7 days of the missed midterm exam in the event of illness. A deferred midterm will be available to individuals with the appropriate documentation for the date of the missed midterm. A mark of zero will be given if no documentation is received within 7 days of the midterm date.

Missed final exam: The University’s exam services handles all requests for deferred final exams and missed final exams. That office should be contacted for anything to do with missing the formally scheduled final exam.

Requests for Academic Accommodation
You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation
Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation
Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf
Academic Accommodations for Students with Disabilities
If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

Survivors of Sexual Violence
As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities
Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline