Instructor: Dr. Ganqing Jiang
Office: SEB (Science and Engineering Building), Room 3241
Contact info: Email: Ganqing.Jiang@unlv.edu
Phone: 702-895-2708
Laboratories: LFG 105: M 2:30 – 5:15 pm (Section 1); Th 2:30 – 5:14 pm (Section 2)
Office Hours: Tuesday and Thursdays, 10:00 – 11:30 am and by appointment
ISBN: 9780470387740 (or any 7th to 10th Edition)
T. A.: Fabian Hardy
Office: TEC Building
Contact info: Email: hardyf@unlv.nevada.edu

Course Description:
Basic concepts and major techniques used by geologist to understand the evolution of Earth and life through time. Topics include the stratigraphic principles, rock cycles, dating methods, plate tectonics, the fossil record, evolutionary theory, mass extinctions, tectonic evolution and paleogeographic interpretation. Laboratory work includes identification of minerals, rocks and major groups of fossils, interpretation of depositional environments, stratigraphic sequence analysis, and geological maps and cross sections.

Learning objectives:
At the end of the class, every student should be able to:

- Use relative and absolute dating principles to interpret the geological history of rock units.
- Identify the major types of sedimentary rocks and their depositional environments.
- Explain the tectonic theory and apply it to the tectonic cycles in Earth history
- Understand the sequence of major events in the history of the Earth and life and their interrelationships
- Identify and classify the major groups of fossils and apply them for stratigraphic correlation
- Correctly interpret geological maps and geological cross sections

Grading:

- Attendance, participation, and quizzes.................20% ---------(a)
- Midterm Exam..................................................20% ---------(b)
- Final Exam.....................................................30% ---------(c)
- Lab/Field work...............................................30% ---------(d)

Final exam will be cumulative. No make-ups for exams except stated by the university rules (see below).

Your final score will be calculated as follows:

Final score = (a) * 20% + (b) * 20% + (c) * 30% + (d) * 30%

Your final grade will be assigned on the following schedule:

\[
\begin{align*}
A & : 90-100; \\
B & : 80-89; \\
C & : 70-79; \\
D & : 60-69; \\
F & : < 60
\end{align*}
\]

A plus/minus system may be employed at the instructor’s discretion.
Lecture Schedule: Updated syllabus and lecture notes will be provided in the class website.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
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</thead>
<tbody>
<tr>
<td>(T) Jan. 21</td>
<td>No Class</td>
<td>No class</td>
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<tr>
<td>(Th) Jan. 23</td>
<td>Introduction: WHYs and HOWs</td>
<td>Chapter 1</td>
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<tr>
<td>(T) Jan. 28</td>
<td>How did our earlier generations think about the Earth: Historical View</td>
<td>Chapter 1</td>
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<tr>
<td>(Th) Jan. 30</td>
<td>How do we know the age of the Earth: Relative and Absolute Ages</td>
<td>Chapter 6</td>
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<tr>
<td>(T) Feb. 4</td>
<td>Materials for studying the Earth history: Rocks and Minerals</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>(Th) Feb. 6</td>
<td>Sedimentary Environments</td>
<td>Chapter 5</td>
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<tr>
<td>(T) Feb. 11</td>
<td>Sedimentary Record: Interpreting the Earth History</td>
<td>Chapter 5-6</td>
</tr>
<tr>
<td>(Th) Feb. 13</td>
<td>Fossils in Sedimentary Record: A Major Tool for Telling Time</td>
<td>Chapter 3,7</td>
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<td></td>
<td><strong>Friday, Feb. 14, Field trip to Frenchman Mountains (Mapping project)</strong></td>
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<tr>
<td>(T) Feb. 18</td>
<td>Fossils in Sedimentary Record: Information on Earth System Changes</td>
<td>Chapter 4,7</td>
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<tr>
<td>(Th) Feb. 20</td>
<td>Plate tectonics and rock cycles: Complexities of the Rock Record</td>
<td>Chapter 8-9</td>
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<tr>
<td>(T) Feb. 25</td>
<td>Plate tectonics and rock cycles: Revealing the Hidden History</td>
<td>Chapter 8-9</td>
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<tr>
<td>(Th) Feb. 27</td>
<td>Major Chemical Cycles</td>
<td>Chapter 10</td>
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<tr>
<td>(T) Mar. 4</td>
<td>Life through Time: The Early Days</td>
<td>Chapter 11</td>
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<tr>
<td>(Th) Mar. 6</td>
<td>Midterm Review</td>
<td>Chapter 1-11</td>
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<tr>
<td>(T) Mar. 11</td>
<td><strong>Midterm Exam (8:30 am)</strong></td>
<td>Chapter 1-11</td>
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<tr>
<td>(Th) Mar. 13</td>
<td>Life through Time: the rise of oxygen and evolution of life</td>
<td>Chapter 11-12</td>
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<tr>
<td>(T) Mar. 25</td>
<td>Life through Time: the rise of oxygen and evolution of life</td>
<td>Chapter 11-12</td>
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<tr>
<td>(Th) Mar. 27</td>
<td>Life through Time: The Proterozoic Eon</td>
<td>Chapter 12</td>
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<tr>
<td>(T) Apr. 1</td>
<td>Life through Time: The Proterozoic Eon</td>
<td>Chapter 12</td>
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<tr>
<td>(Th) Apr. 3</td>
<td>Biological Innovation: The “Snowball” Earth</td>
<td>Chapter 12+</td>
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<td></td>
<td><strong>April 4-6 (Friday-Sunday): Weekend Field Trip to Death Valley</strong></td>
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<tr>
<td>(T) Apr. 8</td>
<td>No class (Assignment for home-staying students due on Thursday)</td>
<td>No class</td>
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<tr>
<td>(Th) Apr. 10</td>
<td>Life through Time: The Paleozoic Biosphere</td>
<td>Chapter 13-15</td>
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<tr>
<td>(T) Apr. 15</td>
<td>The Paleozoic Tectonic History of North America</td>
<td>Chapter 13-15</td>
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<td>(Th) Apr. 17</td>
<td>Mass extinction: What Happened at the End of the Permian?</td>
<td>Chapter 15</td>
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<td>(T) Apr. 22</td>
<td>Life through Time: What’s new in the Mesozoic?</td>
<td>Chapter 16+</td>
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<tr>
<td>(Th) Apr. 24</td>
<td>Mass extinction: What happened to the Dinosaurs?</td>
<td>Chapter 16-17</td>
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<tr>
<td>(T) Apr. 29</td>
<td>Cenozoic Tectonics and Climate</td>
<td>Chapter 18-19</td>
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<tr>
<td>(Th) May 1</td>
<td>Life through Time: Cenozoic–The Age of Mammals</td>
<td>Chapter 18-19</td>
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<tr>
<td>(T) May 6</td>
<td><strong>Final Exam Review</strong></td>
<td>Chapter 1-19</td>
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<tr>
<td>(Th) May 8</td>
<td><strong>Answering Questions</strong></td>
<td>Review Guide</td>
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**May 15: Final Exam, 8:00 a.m. – 10:00 a.m., LFG 102 (Official exam time)**

+ -- Means that additional information (references) will be provided
Academic Misconduct – Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV’s function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: http://studentconduct.unlv.edu/misconduct/policy.html.

Copyright – The University requires all members of the University Community to familiarize themselves and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/provost/copyright.

Disability Resource Center (DRC) – The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to me during office hours so that we may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach me before or after class to discuss your accommodation needs.

Religious Holidays Policy – Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the end of the first two weeks of classes, January 31, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. This policy shall not apply in the event that administering the test or examination at an alternate time would impose an undue hardship on the instructor or the university that could not have reasonably been avoided. For additional information, please visit: http://catalog.unlv.edu/content.php?catoaid=6&navoid=531.

Incomplete Grades – The grade of I – Incomplete – can be granted when a student has satisfactorily completed all course work up to the withdrawal date of that semester/session but for reason(s) beyond the student’s control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. A student who receives an I is responsible for making up whatever work was lacking at the end of the semester. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

Tutoring – The Academic Success Center (ASC) provides tutoring and academic assistance for all UNLV students taking UNLV courses. Students are encouraged to stop by the ASC to learn more about subjects offered, tutoring times and other academic resources. The ASC is located across from the Student Services Complex (SSC). Students may learn more about tutoring services by calling (702) 895-3177 or visiting the tutoring web site at: http://academicsuccess.unlv.edu/tutoring/.

UNLV Writing Center – One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 895-3908. The student’s Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/.

Rebelmail – By policy, faculty and staff should e-mail students’ Rebelmail accounts only. Rebelmail is UNLV’s official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a
Rebelmail account after they have been admitted to the university. Students' e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu.

**Final Examinations** – The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: [http://www.unlv.edu/registrar/calendars](http://www.unlv.edu/registrar/calendars).

**Any other class specific information** - (e.g., absences, make-up exams, extra credit policies, plagiarism/cheating consequences, policy on electronic devices, specialized department or college tutoring programs, bringing children to class, policy on recording classroom lectures, etc.)