1. COURSE TITLE, NUMBER, AND SECTION:
Historical Geology, GEOL 1404-300

2. INSTRUCTOR INFORMATION:
Instructor: Dr. Amanda Julson
Office: H-254
Office Hours: Tu/Th 1:30-3:00 p.m., W 9:00-10:30 a.m. (or by appointment)
Telephone (Office): 979 209-7503
E-mail: ajulson@blinn.edu

3. COURSE DESCRIPTION:
General principles of historical geology with emphasis on evolution of Earth and life through time. Topics include an overview of the rock cycle and plate tectonic theory, with emphasis on stratigraphic principles, the fossil record, evolutionary theory, and paleogeographic map interpretation. Laboratory work includes basic study of rocks, interpretation of depositional environments and tectonic settings, stratigraphic sequence analysis, and fossil interpretation. In-class time is set at three-class lecture hours and three laboratory hours per week. Credit: Four semester hours.

4. PREREQUISITES:
GEOL 1403 (Physical Geology) or permission of instructor.

5. CORE CURRICULUM:
This is a Core Course in the 42-Hour Core of Blinn College. As such, students will develop proficiency in the appropriate Intellectual Competencies, Exemplary Educational Objectives, and Perspectives.
www.blinn.edu/corecurriculum

6. HISTORICAL GEOLOGY LEARNING OUTCOMES:
- Relate topics from physical geology to Earth’s history (e.g., plate tectonics, rock cycle).
- Analyze the formation, classification and interpretation of sedimentary rocks and apply stratigraphic principles to interpret the rock record.
- Apply relative and absolute dating principles to interpret the geologic history of rock units.
- Explain evolutionary theory and relate it to changes in the fossil record through time.
- Identify and classify fossils (including mode of preservation) and apply them to interpret age and environment of strata.
- Characterize each time period of Earth’s history (beginning with its origin) with regard to changes in the paleogeography, environment, and biota.

7. REQUIRED TEXTBOOKS & MATERIALS:
Lecture Notes: Lecture notes and other class materials will be posted in ECampus.

Supplemental Data and Information:
Open Geology-Aid Lab: Friday, G-215 from 1:30-3:30 p.m.
E-Campus page: https://ecampus.blinn.edu/
8. COURSE CONTENT AND SCHEDULE:

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE (Tu/Th)</th>
<th>CHAPTER</th>
<th>LECTURE TOPIC</th>
<th>LAB TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan. 17</td>
<td>1, 3</td>
<td>Rock Cycle</td>
<td>Rock Overview</td>
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<tr>
<td></td>
<td>19</td>
<td></td>
<td>Tectonic Cycle</td>
<td>Plate Dynamics</td>
</tr>
<tr>
<td>2</td>
<td>Jan. 24</td>
<td>2</td>
<td>Rocks and Minerals</td>
<td>Rock and Mineral Review</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>4</td>
<td>Geologic Time</td>
<td>Relative and Absolute Dating</td>
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<tr>
<td>3</td>
<td>Jan. 31</td>
<td>6</td>
<td>Sedimentary Rocks</td>
<td>Sedimentary Rock Classification</td>
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<tr>
<td></td>
<td>Feb. 2</td>
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<td>Sedimentary Environments</td>
<td>Sedimentary Rock Interpretation</td>
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<tr>
<td>4</td>
<td>Feb. 7</td>
<td>5</td>
<td>Stratigraphy</td>
<td>Stratigraphy and Geologic Maps</td>
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<tr>
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<td>9</td>
<td></td>
<td>EXAM #1 (Ch. 1-6; Wk 1-4A)</td>
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<tr>
<td>5</td>
<td>Feb. 14</td>
<td>1</td>
<td>Early Solar System History</td>
<td>Moon and Planets</td>
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<tr>
<td></td>
<td>16</td>
<td></td>
<td>(con’t.)</td>
<td>Meteorites &amp; Impact Materials</td>
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<tr>
<td>6</td>
<td>Feb. 21</td>
<td>8-9</td>
<td>The Precambrian: Archean and Proterozoic</td>
<td>Precambrian Rocks</td>
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<tr>
<td></td>
<td>23</td>
<td></td>
<td>(con’t.)</td>
<td>Rock Review</td>
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<tr>
<td>7</td>
<td>Feb. 28</td>
<td>7</td>
<td>LAB MIDTERM – Interpreting the Rock Record</td>
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<td></td>
<td>Mar. 1</td>
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<td>The Fossil Record: Taxonomy</td>
<td>Biostratigraphy and Paleoenvironmental Analysis</td>
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<tr>
<td>8</td>
<td>Mar. 6</td>
<td>7</td>
<td>The Fossil Record: Taphonomy</td>
<td>Fossil Preservation</td>
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<td>8</td>
<td></td>
<td>EXAM #2 (Ch. 7-9; Wk 5-8A)</td>
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<tr>
<td>9</td>
<td>Mar. 20</td>
<td>10-13</td>
<td>Paleozoic</td>
<td>Paleozoic Paleogeography and Paleoenvironments</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td></td>
<td>(con’t.)</td>
<td>Paleozoic Marine Fossils</td>
</tr>
<tr>
<td>10</td>
<td>Mar. 27</td>
<td>10-13</td>
<td>Paleozoic</td>
<td>Paleozoic Plant Fossils</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
<td>(con’t.)</td>
<td>Paleozoic Vertebrates</td>
</tr>
<tr>
<td>11</td>
<td>Apr. 3</td>
<td>14-15</td>
<td>Mesozoic</td>
<td>Mesozoic Terrestrial Fossils</td>
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<td>5</td>
<td></td>
<td>(con’t.)</td>
<td>Mesozoic Marine Fossils</td>
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<tr>
<td>12</td>
<td>Apr. 10</td>
<td>14-15</td>
<td>Dinosaurs</td>
<td>Dinosaur Diversity</td>
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<td>12</td>
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<td>K/T Extinction</td>
<td>Craters and Impacts in Earth History</td>
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<tr>
<td>13</td>
<td>Apr. 17</td>
<td>16-18</td>
<td>Cenozoic</td>
<td>Cenozoic Fossils</td>
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<td>19</td>
<td></td>
<td>EXAM #3 (Ch. 10-15; Wk. 9-12)</td>
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<tr>
<td>14</td>
<td>Apr. 24</td>
<td>16-18</td>
<td>(con’t.)</td>
<td>Lab Review</td>
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<td></td>
<td>26</td>
<td></td>
<td>LAB FINAL – Interpreting the Fossil Record</td>
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<tr>
<td>15</td>
<td>May 1</td>
<td>19</td>
<td>Holocene/Review for Final Exam</td>
<td>Review for Final Exam</td>
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<tr>
<td></td>
<td>7</td>
<td></td>
<td>FINAL EXAM (Ch. 1-19; Wk. 1-15)</td>
<td>Monday, May 7, 7:45 a.m.</td>
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</tbody>
</table>
9. CIVILITY STATEMENT:
Members of the Blinn College community, which includes faculty, staff and students, are expected to act honestly and responsibly in all aspects of campus life. Blinn College holds all members accountable for their actions and words. Therefore, all members should commit themselves to behave in a manner that recognizes personal respect, and demonstrates concern for the personal dignity, rights, and freedoms of every member of the College community, including respect for College property and the physical and intellectual property of others. Civility applies to attire as well as language, behavior, and cell phones. Please dress appropriately for the academic classroom and laboratory.

10. CIVILITY NOTIFICATION STATEMENT:
If a student is asked to leave the classroom or have access to the online classroom denied because of uncivil behavior, the student may not return to that class until he or she arranges a conference with the instructor. It is the student's responsibility to arrange for this conference.

11. COURSE REQUIREMENTS:
This course has both a lecture and lab components in which participation is required. This includes reading the assigned material before coming to class. Good reading habits and reading comprehension skills are important to doing well in this course.

Students are expected to attend the lecture/lab class meetings. Lecture will clarify and expand upon the material presented in the textbook and supplemental resources (posted in ECampus). Students should feel free to ask questions and contribute to class discussions. Lab will consist of hands-on activities intended to complement the lecture topic. Students are expected to practice the relevant observational and critical thinking skills needed to analyze and interpret specimens, data, etc. In-class question sets will be completed during each class meeting; these provide students an opportunity to check their understanding and identify any areas of weakness in preparation for major exams and lab tests. Weekly (or biweekly) homework assignments also help students master the course content. Assistance with class work and lab skills is available at the weekly Friday Open Lab period, or during the instructor's office hours.

12. EXAM AND MAJOR ASSIGNMENT CALENDAR:

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Exams</th>
<th>Date</th>
<th>Lab Exams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 9</td>
<td>Exam 1</td>
<td>Feb. 28</td>
<td>Lab Midterm</td>
</tr>
<tr>
<td>Mar. 8</td>
<td>Exam 2</td>
<td>May 26</td>
<td>Lab Final</td>
</tr>
<tr>
<td>Apr. 17</td>
<td>Exam 3</td>
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<tr>
<td>May 7</td>
<td>Final Exam - 7:45 a.m.</td>
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13. CRITERIA FOR GRADING AND DETERMINING FINAL GRADE:
This class has three lecture exams, two lab exams, one final exam, approx. 20 collaborative in-class question sets, 23 lab exercises, and 11 homework assignments (to be submitted through ECampus). The course grade is based on a total of 1000 class points. Breakdown of the point distribution and grading scheme is shown below.

Lecture Exams: There will be three lecture exams during the semester plus a comprehensive final exam. Exams can include multiple choice, true/false, fill-in-the-blank, short answer and essay questions. No exam grades are dropped.

Laboratory Tests: The lab exams are practical exams involving identification and interpretation of specimens. No lab test grades are dropped.

Homework Assignments: Question sets are assigned weekly or biweekly (posted in ECampus); they may be worked on collaboratively, but each student will submit their own assignment for grading through ECampus. Deadlines are indicated on the assignment and will always be Sundays at 11:55 p.m. No late work or hard copies of assignments will be accepted. Correct answers are made available in ECampus each Monday following the deadline. One assignment score will be dropped in calculating the average for this component of the final grade.
In-Class Questions: Collaborative in-class question sets are completed for each lecture/lab period from each student. If a student misses class, a score of zero will be given if the absence was unexcused. For excused absences, the missed item will not be factored into the student’s average. One low grade will be dropped in calculating the average for this component of the final grade.

Lab Exercises: A lab exercise will be carried out as part of each class meeting. Students should come prepared with lab worksheets posted in ECampus (new material is available each Sunday for the upcoming week). Credit is awarded upon completion of the exercise and review by the instructor. If a student misses class, a score of zero will be given if the absence was unexcused. Points are deducted for coming late or leaving early from lab.

For excused absences, the missed lab exercise will not be factored into the student’s average. Students are nevertheless responsible for covering the missed material even though credit is not awarded; the Friday Open Lab period (1:30-3:30 p.m.) is the best time for this.

Point Distribution:
- Lecture Exams (100 points each): 300 points
- Lab Tests (100 points each): 200 points
- ECampus Assignments (average): 100 points
- In-Class Questions (average): 100 points
- Lab Exercises (average): 100 points
- Comprehensive Final Exam: 200 points

Total for class = 1000 points

The grading system of Blinn College recognizes the following grade values:
- A = 90 – 100% mastery of course material
- B = 80 – 89% “
- C = 70 – 79% “
- D = 60 – 69% “
- F = less than 59% “

14. BLINN COLLEGE POLICIES:

a. Attendance:
The College District believes that class attendance is essential for student success; therefore, students are required to promptly and regularly attend all their classes. Each class meeting builds the foundation for subsequent class meetings. Without full participation and regular class attendance, students shall find themselves at a severe disadvantage for achieving success in college. Class participation shall constitute at least ten percent of the final course grade. It is the responsibility of each faculty member, in consultation with the division chair, to determine how participation is achieved in his or her class. Faculty will require students to regularly attend class and will keep a record of attendance from the first day of class and/or the first day the student’s name appears on the roster through final examinations. If a student has one week’s worth of absences during the semester (2 classes), he/she will be sent an e-mail by the College requiring the student to contact his/her instructor and schedule a conference immediately to discuss his/her attendance issues. If the student subsequently accumulates two weeks worth of unexcused absences (4 classes), he/she will be administratively withdrawn from class.

There are four forms of excused absence officially designated by Blinn College: (1) Observance of religious holy days: The student should notify his/her instructor(s) not later than the 15th day of the semester concerning the specific date(s) that the student will be absent for any religious holy day(s); and (2) representing Blinn College at an official institutional function; (3) official involvement in a high school activity for “dual credit” students and (4) military service. Other excuses will be considered and may be considered excusable at the instructor’s discretion, with documentation.
b. Dropping a Class:
If a student chooses to drop the course, it is that student’s responsibility to complete a drop order at the Office of Enrollment Services. Failure to do so could result in a grade of F in the course. The last day to withdraw with a “Q” is April 13th, 2011.

c. Honor System:
Blinn College does not tolerate cheating, plagiarism or other acts of dishonesty. Definitions of these acts and procedures for dealing with them are described in “Scholastic Dishonesty” in the Blinn College Student Handbook, copies of which are available to you at the information desk of the Administration Building and online on the Blinn College Webpage (http://www.blinn.edu/current.html).

d. Electronic Device Policy:
All the functions of all personal electronic devices designed for communication and/or entertainment (cell phones, pagers, beepers, iPods, and similar devices) must be turned off and kept out of sight in all Blinn College classrooms and associated laboratories. Any noncompliance with this policy will be addressed in accordance with the Blinn College civility policy (Administrative Policy).

e. Problem Resolution:
If you have a complaint about your class, you should first request a conference with your instructor to try and resolve the problems or issues. If the problems or issues cannot be resolved at the instructor level, you should request a conference with the Division Chair, Mr. Dwight Bohlmeyer, Science 241, dbohlmeyer@blinn.edu.

f. Health Concerns:
Food and drink containers are not allowed in either the lab or the classroom during lab or lecture activities.

g. ADA Policy:
Blinn College is dedicated to providing the least restrictive learning environment for all students. Support services for students with documented disabilities are provided on an individual basis, upon request. Requests for services should be made directly to the Office of Disability Services serving the campus of your choice. For the Bryan campus, the Office of Disability Services (Administration Building) can be reached at (979)209-7251. The Brenham, Sealy and Schulenburg campuses are served by the Office of Disability Services on the Brenham campus (New Administration Building Room 104) and can be reached at (979)830-4157. Additional information can be found at www.blinn.edu/disability.

Do this as soon as possible so that documentation and accommodations can be arranged it may take a couple of weeks to get the forms if you wait. I cannot give any accommodation to students without the Disability Coordinator’s consent.

h. Blinn Handbook:
The above requirements and policies are discussed more fully in the Blinn College Student Handbook which, by reference, is incorporated into this information. Blinn College Student Handbook is available online at http://www.blinn.edu/student%20handbook.pdf. Please obtain and read.

15. OTHER INFORMATION:
How Attendance Policy Works in This Class: Missing lecture or lab or both will count as one absence.

Unexcused Absence Appeal: If you wish to have me consider excusing an absence for any other reason than the official excuses listed above, you need to provide a completed Unexcused Absence Appeal Form (see ECampus) on the first day you return from absence. Upon excusing the absence, any grades from the missed class will not be counted in calculating the average for graded work. Incomplete or late forms will not be considered. I will only grant a maximum of two unexcused absence appeals per individual. Additional missed classes will result in zeroes for graded items on those days.

Make-Up Exams:
Lecture Exams: There will be no make-ups for lecture exams. If a lecture exam is missed, the grade will be replaced with the grade (%) on the Final Exam if an acceptable excuse for the absence is presented to
me in a timely manner. Excused absences include those officially recognized by Blinn College, plus a
death in the family (documentation required), or an illness with a doctor's certification. I will only allow this
for ONE of the three lecture exams. An unexcused absence from an exam will result in a grade of zero.

*Laboratory Exams:* If a lab test is missed, you must discuss the situation with me and arrange to make up
the test upon your return to class, or you will receive a zero for the lab test.

*Student E-mail:* I will send emails to the Blinn student address and/or through ECampus mail. Students
are responsible for setting up these mailboxes to forward to their personal email addresses, if desired.