Florida International University
Department of Earth and Environment

ESC 1010 Introduction to Earth Sciences
Fall Term, 2015, MWF 1000-1050, PC 428

Instructor
Dr. Grenville Draper
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Office Hours: M/W 2:00-4:00 PM, Tu 11:00-12:00 or by appointment

Course Description:
This course provides a basic survey of the Earth Sciences. Subjects covered include:
formation of the solar system and the Earth, plate tectonics, formation and classification of
minerals and rocks, geologic time, deformation of the Earth’s crust, the geologic history of
North America, ground water, and geologic aspects of South Florida. This course with its
Lab (ESC 1000) fulfills the Natural Science Group 1 UCC requirement.

Course Objectives
Students should leave this course with a solid appreciation of the earth sciences and their
impact on such societal issues such as natural hazards, mineral and energy resources.

Learning Outcomes
After completing this course, students should be able to apply their knowledge of Earth
Sciences to 1) apply scientific principles and theories to problem solving; 2) test scientific
hypothesis by applying the scientific method; 3) evaluate scientific statements and
graphics; and 4) interpret new information within the context of existing knowledge.

Reading

Required Textbook: Reynolds, S.J. and Johnson, J.K. Exploring Earth Science,
This is an e-Text with an associated learning system on which you will do weekly, on-line
quizzes that will count toward your grade. The cost is $85. Purchase of the text is,
therefore, mandatory. An unbound paper, three-hole punch copy is also available to
students for an additional $15. If you do not want to buy this text, please drop the class

You are responsible for reading the assigned readings before class. Merely attending the
lectures is not a substitute for reading the text and reviewing materials outside of class.
Reading assignments will average around 50 pages per week. Additional required readings
will be posted on the Blackboard website.

Internet Resources
This is a web assisted course. A course webpage will be maintained with Blackboard.
This page will contain this syllabus, copies of resources, exercises, links, exam scores, and
announcements for the course. To log in, use your browser to go to fiu.blackboard.com or
ecampus.fiu.edu. If you have browser issues call 305-348-2284 for help.
Lecture attendance:
Attendance at lectures is required. Please be courteous to others and me in class: arrive on time to lectures, and turn off all cellular phones while in class.

Grading:
The grade in this course will be based on the following:

- On-line quizzes (12 quizzes, 2 worst grades dropped) 50%
- First Mid term 15%
- Second mid term 15%
- Final 20%

Exams will cover all material in the assigned readings, lectures, and handouts, and will generally consist of multiple choice, matching, fill in, and short answer questions. The midterm exams will be of 45 minute duration. The final exam will cover material for the whole course and will be 120 minutes in duration.

Grades on exams will be computed as follows
A: 100% - 91%; A-: 90% - 88%; B+: 87% - 85%; B: 84% - 81%; B-: 80% - 78%;
C+: 77% - 73%; C: 72% - 68%; C-: 67% - 62%; D: 61% - 46%; F: 45% - 0%.

Exam grades normally will not be curved.

In-Class Activities:
Students will participate in several in-class activities, which are based on concepts discussed in class. Assignments will be submitted at the end of day’s activities and will be graded based on correct and/or incorrect responses. There are no makeups for these activities.

Exam attendance:
Exam attendance is mandatory. A make-up midterm exam will not be offered except for documented cases of serious illness, emergency, or death in the family, and only at my discretion. If you must miss an exam for one of these reasons, you must contact me by telephone or e-mail before the exam. Exams missed in other circumstances will count as zero towards your final grade. Please arrive on time for exams. All tests will start promptly at the beginning of class.

University Policy on Academic Misconduct
All students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of Florida International University. Any act that violates the student/instructor trust will not be tolerated. Acts of cheating, plagiarism, or lying will result in an “F” grade for the class and the possibility of expulsion from FIU. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.
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<thead>
<tr>
<th>Week beginning</th>
<th>Topic</th>
<th>Chapter</th>
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<tbody>
<tr>
<td>Jan 11</td>
<td>Introduction; what Earth Science is about</td>
<td>1</td>
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<tr>
<td>Jan 18</td>
<td>Monday 18th MLK day, no class; Minerals</td>
<td>2</td>
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<tr>
<td>Jan 25</td>
<td>Earth Materials; Sedimentary, igneous and metamorphic rocks; Earth History</td>
<td>3,4</td>
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<td>Feb 1</td>
<td>Plate Tectonics,</td>
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<td>Feb 8</td>
<td>Igneous processes; Deformation and earthquakes</td>
<td>6,7</td>
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<td>Feb 15</td>
<td>Mon: Review, Wed: 1st MID TERM EXAM</td>
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<td>Fri: Mountains, Basins, Margins</td>
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<tr>
<td>Feb 22</td>
<td>Mountains, Basins, Margins(cont.) Sculpting landscapes</td>
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<td>Feb 29 (Leap day)</td>
<td>Soils and slopes</td>
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<td>Mar 7</td>
<td>Glaciers and Changing sea levels; Steams and groundwater</td>
<td>11, 12</td>
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<td>Mar 14</td>
<td><strong>Spring Break</strong> - no classes</td>
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<td>Mar 21</td>
<td>(Mon 21st last day to drop) More Groundwater; Atmosphere</td>
<td>12, 13</td>
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<td>Mar 28</td>
<td>Mon Review Wed: 2nd MID TERM EXAM</td>
<td>14</td>
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<td>Fri: Atmospheric motion:</td>
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<td>Apr 3</td>
<td>Atmospheric moisture; weather and storms</td>
<td>15, 16</td>
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<td>Apr 10</td>
<td>Oceans</td>
<td>17, 18</td>
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<td>Apr 18</td>
<td>Climates</td>
<td>18</td>
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<td>Apr 25</td>
<td>(Passover) TBA</td>
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<td>May 2</td>
<td>Finals week</td>
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