Course Description: Rain, wind, heat, and cold; forests; grasslands, and deserts; mountains, rivers, plains, and canyons: these are some of the features that cover the surface of the earth. Geography 203 is a course about the earth's surface. We'll group the surface features into three broad categories—climates, ecosystems, and landforms—which correspond with the three major subdisciplines of contemporary physical geography, namely, climatology, biogeography, and geomorphology. Such categories are for our convenience, of course. A glance at any actual landscape shows that even within a small area the earth's surface contains many different features related to all three categories. In this course, we will explore the earth's surface and the interconnected processes that operate to bring about its features.

Learning Outcomes: Students will be able to (1) interpret the arrangement of climates, ecosystems, and landforms over the earth's surface; (2) predict patterns that emerge from the interplay of multiple earth system processes and human actions; (3) explain the manner in which knowledge of the earth's surface has been gained; (4) analyze some types of data and maps that physical geographers commonly use to study the earth; (5) describe geographic patterns through maps, graphs, and quantitative and written expressions; and (6) solve problems through teamwork.

Instructor: Dr. Charles Lafon
Office: 706B Eller O&M Building
Office Hours: TR 1:30–3:00 pm; or by appointment
Phone: 862-3677; Geography Dept. phone: 845-7141
E-mail: clafon@geog.tamu.edu
Class Meeting Time and Place: TR 11:10 am–12:25 pm; ZACH 102

Supplemental Instruction (SI): Melissa Taylor (taylor.melissa11@tamu.edu) will lead the SI sessions for this class.


Other Reading Assignments: The daily schedule below lists other reading assignments by the author's name. PDFs of these essays will be available through the Course Reserves link (under Class Resources) on the University Libraries homepage (http://library.tamu.edu).

Grading: The course grade comprises the following parts:

Exam 1 28 points
Exam 2 28 points
Exam 3 28 points
Homework exercises 6 points
Quizzes 6 points
In-class problem-solving exercises 4 points

Total 100 points

I use the standard ten-point grading scale (90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, ≤ 59 = F), but may adjust the grades upward, if necessary, at the end of the semester.

Students seeking an excused absence on an exam day must notify the professor or the Department of Geography by the end of the next working day following the absence, as described in Texas A&M University Student Rules (http://student-rules.tamu.edu/rule07). Please see the instructor in advance if you know you will not be able to take an exam on the scheduled date.
Course Outline and Daily Schedule (Tentative):
Chapters & page numbers refer to the Christopherson text; the other reading assignments are listed below.

I. INTRODUCTION

<table>
<thead>
<tr>
<th>Week/ Day</th>
<th>Date</th>
<th>Topic</th>
<th>Reading assignment</th>
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<tbody>
<tr>
<td>1/T</td>
<td>Aug 28</td>
<td>Introduction</td>
<td>Ch 1</td>
</tr>
<tr>
<td>R</td>
<td>Aug 30</td>
<td>Latitude, longitude, &amp; maps</td>
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II. CLIMATES

A) How the earth receives the energy that makes the climate system work

| 2/T       | Sept 4 | Earth-sun relationships                    | Ch 2               |
| R         | Sept 6 | Solar radiation & its interaction with the atmosphere | Ch 3 (pp. 60-66), Ch 7 (168-171) |
| 3/T       | Sept 11| Earth’s radiation balance                  | Ch 4 (84-93, 101-105) |

B) How temperature differs between places and changes over time

| R         | Sept 13| Temperature patterns                       | Ch 5               |
| 4/T       | Sept 18| Past temperatures: reconstructing climate change | Ch 17 (509-521); Flannery ch 11, Alley ch 6 |
| R         | Sept 20| Climate change: causes & effects           | Ch 10 (282-289)    |

C) How—and where—the wind blows, and implications for climate patterns

| 5/T       | Sept 25| Atmospheric circulation: processes         | Ch 6               |
| R         | Sept 27| EXAM 1                                     |                    |
| 6/T       | Oct 2  | Atmospheric circulation: patterns           |                    |
| R         | Oct 4  | Atmospheric circulation: patterns           |                    |
| 7/T       | Oct 9  | Oceanic circulation & El Niño-Southern Oscillation |                |

D) Moisture in the climate system: humidity and precipitation

| R         | Oct 11 | Atmospheric moisture                       | Ch 7 (164-174), Ch 9 (224-233) |
| 8/T       | Oct 16 | Moisture & atmospheric stability           | Ch 7 (175-178)          |
| R         | Oct 18 | Precipitation                              | Ch 7 (178-187); Ch 8 (195-201) |

E) The weather and climate of air masses, fronts, and storms

| 9/T       | Oct 23 | Air masses & fronts                        | Ch 8               |
| R         | Oct 25 | Midlatitude and tropical cyclones          |                    |
| 10/T      | Oct 30 | EXAM 2                                     |                    |

F) Tying it together: how climates are distributed over the earth’s surface

| R         | Nov 1  | Global climates                            | Skim Ch 10 (251-281) |

III. ECOSYSTEMS

A) How organisms are distributed over the earth’s surface

| 11/T      | Nov 6  | Geographic distributions & factors that control them | Ch 19 (556-565) |
| R         | Nov 8  | Biomes and biodiversity                      | Skim Ch 20       |
B) How vegetation responds to storms, fires, and environmental change

12/T Nov 13 Disturbances & succession

IV. LANDFORMS

A) How landforms come about

R Nov 15 Denudation, weathering, & karst

B) How gravity molds landforms

13/T Nov 20 Landslides and other mass movements

R Nov 22 THANKSGIVING

C) How running water molds landforms

T Nov 27 Stream systems and streams as geomorphic agents

14/R Nov 29 Fluvial landforms

T Dec 4 Fluvial landforms

Final Exam Date and Time: Friday, December 7, 3:00-5:00 pm in our regular classroom

Other Reading Assignments Listed on the Daily Schedule (available from the Library's e-reserves)


- Greene, S.W. 1931. The forest that fire made. American Forests 37, pp. 583–584, 618.


ADA Statement: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room B118 of Cain Hall. The phone number is 845-1637.

Academic Integrity Statement: An Aggie does not lie, cheat, or steal, or tolerate those who do.

Aggie Honor System Office website: http://aggiehonor.tamu.edu
3. Change in Courses — Core Curriculum

**BIOL 113. Essentials in Biology**

Course description
- **From:** One-semester survey of basic biological principles, including chemical basis of life, cell biology, bioenergetics, genetics, evolution, anatomy and physiology, reproduction and development, and interaction with the environment. Not suitable for students who plan to take additional courses in the Biology Department. BIOL 123 is the corresponding laboratory course.
- **To:** One-semester in introductory biology for non-majors; chemical basis of life, cellular and molecular biology, genetics, evolution, biodiversity and interaction of organisms with their environment; includes a laboratory to supplement and reinforce lecture topics.

Lab and semester credit hours
- **From:** (3-0). Credit 3.
- **To:** (3-3). Credit 4.

**GEOG 203. Planet Earth.**

Course description
- **From:** Overview of Earth’s physical environment including climate, water, landforms, and ecosystems; processes that control these systems and their global distributions; human effects on these processes; topics illustrated through hands-on laboratory activities.
- **To:** Earth’s physical environment including climate, water, landforms, and ecosystems; processes that control these systems and their global distributions; human effects on these processes.

Lab and semester credit hours
- **From:** (3-2). Credit 4.
- **To:** (3-0). Credit 3.

**GEOS 210. Climate change.**

Lab and semester credit hours
- **From:** (3-2). Credit 4.
- **To:** (3-0). Credit 3.