

Kutztown University: Spring 2012

Geg 010 Elements of Physical Geography

Dr. Richard Courtney
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 Office Hrs: MWF 11 - 11:50 a.m., TH 3 - 4 p.m.,
 and by appointment

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<http://faculty.kutztown.edu/courtney> under "Course Announcements." ☞ **Check here daily!**

Class Meeting Days and Time:

Section 050 TH 9:30 - 10:50 a.m.

Room: Boehm 105

You may only attend the section you are registered for!

Required Texts: Strahler and Strahler Physical Geography, 3rd edition.
College Atlas of the World 2007

Grading:

| | | |
|-----------|-----|---|
| Map Test | 10% | Feb. 16 (4 th week) |
| Exam 1 | 15% | Feb. 23 (5 th week) |
| Exam 2 | 15% | Apr. 3 (10 th week) |
| Exam 3 | 15% | Apr. 19 (12 th week) |
| Exercises | 15% | 6 exercises to be worked on INDIVIDUALLY (<u>absolutely no copying!</u>). |
| Final | 30% | See Calendar. You must take your final exam with your regular section. |

Formats:

| | |
|-------------|---------------------------------|
| 1 Map Test: | 75 multiple choice |
| 3 Exams: | 50 multiple choice and fill-ins |
| 1 Final: | 100 cumulative questions |

(Only a signed doctor's note is an acceptable excuse for missing the final exam as per College regulations)

Course Grading Scale:

| Pts. Range | Grade |
|------------|-------|
| 90% + | A |
| 75 - 89 | B |
| 60 - 74 | C |
| 50 - 59 | D |
| < 50 | F |

Warning: College and University policies regarding cheating, plagiarism, and academic fraud will be enforced at my discretion. See *The Key* for policies.

Cell phone use is prohibited: They may not be used as calculators either.

No extra credit work will be assigned other than in-class videos and a pop quiz.

Attendance Policy: I follow the policies of the College of Liberal Arts and Sciences. See https://portal.kutztown.edu/common/catalog/pdf/cat_ug_06.pdf

Make-up Policy: Students must arrange to take missed quizzes or exams as soon as possible. Excuses must cover every day missed between the quiz/exam date and the date of the make-up quiz/exam. See the web address immediately above for acceptable excuses.

Graded Work: Students must retain all graded and returned work in case of grade recording errors. Students are also expected to complete a copy of the *Grading Chart (see attached)*.

Course Objectives:

The primary objective of this course is to examine the Earth-Atmosphere-System (EAS) and discuss the mechanisms that drive the earth's weather so that students will be able to correctly explain the factors that create the pattern of climates present today. A secondary objective is to introduce students to Geomorphology, the study of landforms. Toward this end, landforms created by tectonic and volcanic processes, running water, and glacial ice will be discussed. We will complete exercises involving the metric system, maps, humidity, weather, solar angle, seasons, and time. Students are also expected to do each of the assigned tutorials found in Desire2Learn (D2L).

TENTATIVE COURSE SEQUENCE AND READINGS

- I Introduction, Systems and Energy (Exam 1)**
Reading: Ch. 1; Ch. 2, and Ch. 4 pp. 63-66
§Tutorials 1, 2, and 3
Ex. 1: Scientific Notation and the Metric System
- II Atmospheric Composition and Structure (Exam 1)**
Reading: Ch. 4 pp. 75-76, Ozone Layer pp. 78-79; Ch. 5 pp. 110-112, 122-128;
Ch. 7 pp. 169-173; Ch. 3 pp. 38-45, and College Atlas pp. 12-13
Tutorials 4, 5, 6, and 7
Ex. 2: Maps and Coordinates
- III Solar Radiation, Energy Balance and Surface Temp. (Exam 2)**
Reading: Ch. 4 pp. 63-75, 77-84; and Ch. 5 pp. 101-110, 112-122
Tutorial 8
Ex. 3: Contour Mapping (Isolining)
- IV Winds, Atmospheric and Oceanic Circulation, and El Niño (Exam 2)**
Reading Ch. 7 pp. 172-199
Tutorials 9, 10, 11, 12, and 13
- V Atmospheric Moisture and Stability (Exam 3)**
Reading: Ch. 6 pp. 135-152
Tutorials 14, 15, 16, 17, and 18
Ex. 4: Relative Humidity, Lapse Rates, and Stability
- VI Air Masses, Fronts, and Storms (Exam 3)**
Reading: Ch. 8 pp. 205-224; and Ch. 6 pp. 146-155
Tutorials 19, 20, and 21
Ex. 5: Station Model
- VII Climate (Exam 3) *You will need to do this on your own as it will not be covered in class!!***
Reading: Chapters 9, 10, and 11
Tutorial 22
- VIII Seasons, Solar Angle, and Time (Final)**
Reading Ch. 3 pp. 49-53, and 46-49
Tutorials 23, 24, 25, 26, and 27
Ex. 6: Solar Angle, and Time
- IX Earth's Surface and Plate Tectonics (Final)**
Reading: Chapters 13 and 14
Tutorials 28 and 29
- X Fluvial Geomorphology (Final)**
Reading: Ch. 6 pp. 136-138; and Chapters 16 and 17
- XI Glacial Geomorphology (Final)**
Reading: Ch. 20

SEQUENCE AND TIMING MAY CHANGE SO BE AWARE OF ANNOUNCED CHANGES.

You may also check for date changes on my web page at:

<http://faculty.kutztown.edu/courtney> Look for "Course Announcements"

§Tutorials are found in Desire2Learn

Kutztown University
Spring 2012 Calendar
Physical Geography section 050: TH 9:30-10:50

| Sun | Mon | Tue | Wed | Thu | Fri |
|--------------------------------|-----|--|--------|--|-----|
| 1 st wk. Jan. 22 | 23 | 24 Intro., D2L, Definition of Geog, and Systems | 25 | 26 Scientific Notation and the Metric System | 27 |
| 2 nd wk. 29 | 30 | 31 Temperature Scales and Energy Units | Feb. 1 | 2 Forms of Energy, and EMR | 3 |
| 3 rd wk. 5 | 6 | 7 EM Spectrum and EM Transfer | 8 | 9 Atmospheric Composition and Structure | 10 |
| 4 th wk. 12 | 13 | 14 Earth's Shape and Coordinates | 15 | 16 Map Test Using an Atlas | 17 |
| 5 th wk. 19 | 20 | 21 Map Projections and Scale | 22 | 23 Exam 1 | 24 |
| 6 th wk. 26 | 27 | 28 Energy Distribution | 29 | Mar. 1 Global Energy Budget | 2 |
| 7 th wk. 4 | 5 | 6 Surface Temp. Variation | 7 | 8 Isoline Mapping | 9 |
| S P R I N G B R E A K | | | | | |
| 8 th wk. 18 | 19 | 20 Winds | 21 | 22 Global Circulation Models, and Idealized Surface Winds | 23 |
| 9 th wk. 25 | 26 | 27 Surface Pressure Systems, and Ocean Currents | 28 | 29 El Nino | 30 |
| 10 th wk. Apr. 1 | 2 | 3 Exam 2 | 4 | 5 Atmospheric Moisture, and Adiabatic Lapse Rates | 6 |
| 11 th wk. 8 | 9 | 10 Atmospheric Stability, and Uplift Mechanisms | 11 | 12 Air Masses and Fronts | 13 |
| 12 th wk. 15 | 16 | 17 Storms and Station Model | 18 | 19 Exam 3 | 20 |
| 13 th wk. 22 | 23 | 24 Seasons and Solar Angle | 25 | 26 Time | 27 |
| 14 th wk. 29 | 30 | May 1 Tectonics and Volcanoes | 2 | 3 Glacial Geomorphology | 4 |
| Finals Week | 7 | 8 Final @ 8:00 | 9 | 10 | 11 |

***You must take your final exam with your regular section.**

Sequence and timing may change, so be aware of announced alterations!

Check my home page (<http://faculty.kutztown.edu/courtney>) and click the link to
Course Announcements for updates on any course changes.

Physical Geography Grading Chart: Spring 2012

| Exercise Scores and Points | | | Map Test Score & Points | | | Exam Scores and Points | | | | Final Exam Score & Points | | | | |
|---|------------------------|--------|--|-------|--------|--|----------------------|-------|--|---------------------------|-------|--|-------|--|
| | Score | Out of | Pts.§ | Score | Out of | Pts.¥ | | Score | Out of | Pts.‡ | Score | Out of | Pts.£ | |
| Ex. 1 | | | | | 75 | | Exam 1 | | | | | | | |
| Ex. 2 | | | | | | | Exam 2 | | | | | | | |
| Ex. 3 | | | | | | | Exam 3 | | | | | | | |
| Ex. 4 | | | | | | | | | | | | | | |
| Ex. 5 | | | | | | | | | | | | | | |
| Ex. 6 | | | | | | | | | | | | | | |
| Ex Pts. | Sum of Ex. Pts. | | | | | | Map Test Pts. | | | Sum of Exam Pts. | | | | |
| | | | §For Ex. Pts., (Score ÷ Out of) X 2.5 | | | ¥For Map Test Pts., (Score ÷ 75) X 10 | | | ‡For Exam Pts., (Score ÷ Out of) X 15 | | | £For Final Exam Pts., (Score ÷ Out of) X 30 | | |
| Course Points Structure: 15 Ex. Pts. + 10 Map Test Pts. + 45 Exam Pts. + 30 Final Exam Pts. = 100 points | | | | | | | | | | | | | | |

| | | |
|---------------------------------|-----------------------------------|---|
| Sum of Points From Above | Plus Any Extra Credit Pts. | = Total Course Points (same as percentage) |
| | | |

Record all of your scores on this form and retain all your work in case of any discrepancies.