

GEOG 1114 INTRODUCTION TO PHYSICAL GEOGRAPHY

Section 701 (Honors)

SPRING 2015 SYLLABUS*

Lectures: Tue Th 10:30-11:45 am CLB 206

Laboratory Sessions: W 2:30-4:20 pm MUR 345

Instructor: Carlos E. Cordova

Office: MUR 421

Office Hours: T, TH 2:00-3:00 pm

Phone: 744-9174

Email: carlos.cordova@okstate.edu (fastest response)

Course Description

This course is a general analysis of process and natural features of the earth (landforms, soils, minerals, water, weather, climates, flora, and fauna). The course includes laboratory exercises and a field trip. At the end of the course the student will have basic knowledge of the most important aspects of the natural world and an understanding of human-environment relations.

Required class materials

1. *Physical Geography*, Tom L. McKnight and D. Hess, 11th edition
2. *Physical Geography Lab Manual*. Spring 2015.

Grading

Final grades are based on each student's accumulated points. A curve will be developed only if the highest score in the class is below 100%. The value of each exam and lab grade is as follows.

Term paper	200 points
Creative assignment	100 points
Quizzes (8 @ 50 points each)	400 points
Attendance	50 points
Total Lecture :	750 points
+ Lab grade	250 points
Total course grade	1000 points

Final grades will be assigned on the following basis:

	Minimum points	percent
A	900	90%
B	800	80%
C	700	70%
D	600	60%
F	<600	<60%

Term paper

The paper will be a 2000-3000 a featured topic. Check due date (See schedule). It must be about a list of topic provided in class. Adhere to the following guidelines:

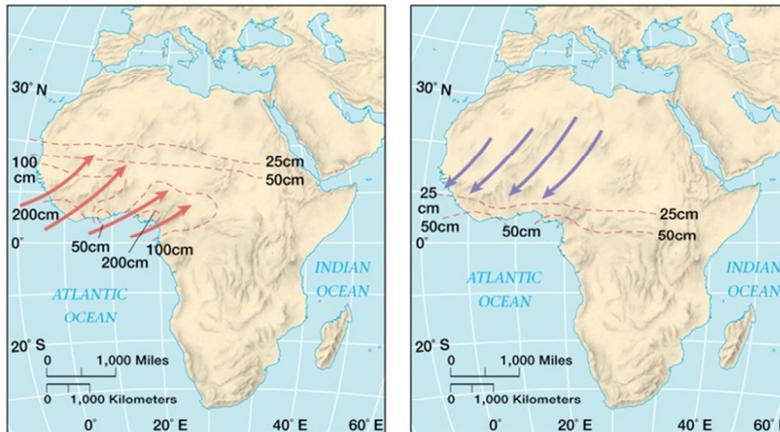
The maximum number of website references should not exceed 30% of the total number of references. For example, if you have 6 references, only 2 can be from websites.

You must use the citation system of the American Association of Geographers (Find it in the library website under the journals: *Professional Geographer* or *Annals of the Association of American Geographers*). Your instructor will explain more about it.

Website references: blogs, Wikipedia, government or embassy websites, personal websites, tourist websites, news online, etc.

Non-website references: books, academic journal articles, theses, dissertations, etc. If it is an e-book or an electronic article downloaded from the library website that is still a non-website article.

Figures should be numbered, and referenced in text. The caption will include the Figure numbers, a short description, and its source. The source will have to be listed in the references. See example below:



← Figure

(b) Summer

Winter

Figure 1. Summer and winter monsoon in Africa. Source: Hess (2011)

← Caption

It is known that there are two seasons in West Africa: the dry and the wet Season. They correspond to the summer and winter monsoon seasons (Fig. 1) The summer monsoon is influenced by the ITCZ and occurs...

← Citation in text

Hess, D. 2011. McKnight's *Physical Geography*, tenth edition. Pearson

← Source in your Bibliography or List of references

Rubric for term paper

Excellent (100)	Acceptable (85-99) percent credit	Sufficient (75-85)	Unsatisfactory (60-75)	No credit
1. Topic relevant to the topics of the class. 2. Well documented topic. 3. Good grammar. 4. Logical structure 5. Number of words during the limit 6. References, figures, and captions adhere to the guidelines	Two of the 6 points are not met	Half of the 6 points are not met.	More than 4 of the 6 points are not met	Failed to submit paper

Creative assignment

This could be a paper, a poster, a travel brochure, an educational brochure a short story, a play, song, poetry, software design or any product of your creative mind. The only requirement is that it has to touch on a geographic topic: (e.g., weather, climate, geological topics, plants, animals, etc.). Don't panic! We will talk about your choices in class.

Quizzes

There are no exams in this class. You will have two exams in lab though. But you will have 8 quizzes. Each quiz will be administered every two weeks starting on Week 3. Each quiz will cover the material of the previous two weeks. For example, the quiz you will take on Week 3 will cover the material reviewed on Weeks 1 and 2. Note that each week has also some reading material from the textbook (See Schedule).

The quizzes could be given Tuesday or Thursday, so you'd better be prepared from the beginning of the week. If you miss a quiz and have a legitimate excuse, please, see the sections *Make-up work* and *Final Exam?*

Attendance

Attendance will be called at the beginning of each class. It will contribute to 50 points (prorated) to the final grade.

Lab grade

Lab grade is the 25% of the final course grade. The maximum number of points obtained in lab is 250. Consult your lab manual for details. Please, contact your TA for any question regarding lab procedures and grading.

Lecture slides

Lecture slides will be posted online during the weekend before the scheduled week.

Final exam?

We do not have a final exam, since I consider the quizzes to cover all the lectures. However, the date for the final exam will be reserved for quiz make ups.

Make-up work

Make-up exams will be given only when a student contacts the instructor with a legitimate excuse (see Student Handbook) prior to the scheduled exam. It is the responsibility of the student to be aware of exam dates and fieldtrips. If you miss a date without a legitimate excuse, you will not be able to make it up. No early exams will be given; so do not plan to leave Stillwater until after the scheduled final examination.

Study guides?

I don't hand out study guides for the quizzes (remember, we don't have exams). However, the class schedule has the pages I expect you to read. Additionally, at the end of my lectures (which will be available online) I list some important questions for you.

How to read the textbook chapters?

The quizzes are based on my lectures, but the lectures draw directly on the textbook readings (see schedule). So, I suggest that you follow the lectures with the readings or viceversa. If you notices that I stress on a topic or a figure in class, it probably means that it will be in the quiz. In that case, you should highlight that topic or figures on your textbook.

The lab section

Be aware that although the lab grade is part of the course, I do not have any control over what goes on in the lab. Anything related to lab exercises, schedules, exam, and fieldtrip please ask your TA. The lab has its own webpage where announcements are posted. But make sure you know your TA's name and email. Alternatively, you can contact also the lab coordinator, Dr. Steve Stadler at the Geography Department.

Special accommodations for students

If any member of this class feels that he/she has a disability and needs special accommodations, the instructor will work with you and the Office of Student Disability Services, 315 Student Union, to provide reasonable accommodations to ensure that you have a fair opportunity to perform in this class. Please advise the instructor of such disability before or immediately following the first scheduled class period in order that appropriate accommodations can be arranged.

Academic Dishonesty

The expectation for all students in this course is that complete integrity will be demonstrated at all times. Cheating on exams and map quizzes will result in a zero (0) for the examination or quiz, and faculty regulations require notifications of deans, advisors, etc. in the event of academic dishonesty. You should be aware that both “taking” and “giving” improper assistance during exams constitutes academic dishonesty.

Communication matters

1. Announcements are given in class every time we meet. If you miss class, you will miss important announcements. Therefore, it is the responsibility of the student, whether present in class or not, to be aware of announcements provided verbally in class.
2. I communicate with the students by email. In some cases, last minute announcements such as class cancellations are sent out to the email you registered in D2L. Therefore, I suggest you check your email frequently for any information on the class.
3. Normally I am around during the days I teach (Tuesday and Thursdays), but I may have other classes or meetings. So, the best time to meet is during my office hours. If that doesn't work for you, please let me know so we can make an appointment.
4. Be aware that on Monday, Wednesdays and Fridays I work in two labs located away from my office. This is why email is the fastest way to get in touch with me.

Additional comments (Please read)

1. I expect students to show up for class and remain for the entire class period. I do not permit students to leave early unless they have checked with me before class with a justifiable excuse.
2. I will not tolerate improper behavior such as texting, checking facebook, reading newspapers books, magazines or other materials that have nothing to do with the class, or doing anything that disturbs the others around you.
3. Extra credit is only available through some additional questions in the test. Other forms of extra credit are not an option for this class.
4. According to university policies, neither the instructor nor the TAs can discuss or send grades by phone, mail, or email. Please, do not insist.

Important! Although the lab section is part of the grade, lectures and lab work independent from each other. Please, contact your TA for details on lab schedule and procedures.

**Lecture schedule and study guide
Spring 2015**

<p>Week 1 Jan. 12-16</p>	<p>Introduction to the course Introduction to Geography and Physical Geography: pp. 3-5 Introduction to Earth Size and shape of the Earth: pp. 11-12 Latitude and Longitude: pp. 13-17</p>
<p>Week 2 Jan. 19-23</p>	<p>Earth-Sun relations: pp. 17-19 The annual march of the seasons: pp. 19-22 Day length: pp. 22-27 Day length in the Arctic: p. 23</p>
<p>Week 3 Jan 26-30</p>	<p>Portraying Earth The Nature of Maps. Definition of map: p. 32 Map essentials: pp. 39-40 Remote sensing: pp. 44-49 Geographic information systems 49-51 Tuesday, Jan 27. Quiz 1 (Covers weeks 1 and 2)</p>
<p>Week 4 Feb 2-6</p>	<p>Introduction to landform study Earth's interior: Fig. 13.1, p. 376 Minerals: pp. 378-379 Rocks: pp: 379-390 (except p. 387) Geologic time: pp: 393-395 External and internal processes: pp. 392-393</p>
<p>Week 5 Feb. 9-13</p>	<p>The internal processes Wegener's Continental Drift: pp. 402-404 Plate tectonics theory. Pp. 406-405 Plate boundaries: pp: 422-426 Mantle plumes and hot spots: pp. 388-389 Volcanic peaks (Types of volcanoes): pp. 408-413 Volcanic hazards: pp. 426-429 Earthquakes: pp. 438-441 Tuesday, Feb. 10 Quiz 2 (covers weeks 3 and 4)</p>

<p>Week 6 Feb. 16-20</p>	<p>Karst and hydrothermal processes Solution and precipitation: pp. 499-500 Caverns and related features: pp. 501-502 Karst Topography: pp. 502-505 Hydrothermal features: pp. 505-511</p>
<p>Week 7 Feb. 23-27</p>	<p>The fluvial processes Stream flow and overland flow, valleys and interfluves, and drainage basins: pp. 468-471 (except 470); See also Figs. 16.2 16.3, and 16.4 (pp. 468, 469 and 471) Sediment transportation and deposition: pp. 472-473; Fig. 16.7 (p. 472). Channel flow, cross section and turbulence: p. 475 Stream channel patterns: pp. 475-477 The shaping and re-shaping of valleys (deepening, widening and lengthening; stream capture; delta formation): pp. 485-486; Fig. 16.36 (p. 486) Floodplains and floods: pp. 486-490; see also Figs. 16.39 and 16.40 (p. 488)</p> <p>Tuesday, Feb. 24. Quiz 3 (covers weeks 5 and 6)</p>
<p>Week 8 March 2-6</p>	<p>The topography of arid lands Special characteristics of deserts: pp. 515-517 Running water in waterless regions: pp. 517-519 Aeolian erosion, transportation, deposition: pp. 523-525 Desert sand dunes: pp. 525-527 Basin and range landscapes: pp. 530-534 Mesa and scarp landscapes: pp. 534</p> <p>Thursday March 5. Quiz 4 (covers week 7)</p>
<p>Week 9 March 9-13</p>	<p>Introduction to the atmosphere Size of the atmosphere: Fig. 3-2 (p. 56) Composition of the atmosphere; permanent gases, variable gases, and particulate aerosols: Fig. 3.3 (p. 57). Vertical structure of the atmosphere; thermal layers: pp. 59-60 Air pressure: pp. 60-62 Depletion of the ozone layer: pp. 62-64 Weather and climate: pp. 67-71 The Coriolis Effect: pp. 71-73</p> <p>Thursday March 12. Quiz 5 (covers week 8)</p>

Spring Break

<p>Week 10 March 23-27</p>	<p>Insolation and temperature Solar energy; electromagnetic radiation: pp. 80-83 Basic heating and cooling processes in the atmosphere: pp. 88 Adiabatic cooling and warming, Fig. 4.6 (p. 88) Earth-solar radiation budget: Fig. 4.6 (p.88) Latitude seasonal differences: pp. 90 and 92 Land-water contrasts: pp. 94-95. See also Figs. 4.24 and 4.25 (pp. 94 and 95) Oceanic circulation: Fig. 4.26 (p. 96)</p>
<p>Week 11 March 30- Apr. 3</p>	<p>Atmospheric pressure and wind Factors influencing atmospheric pressure: pp. 98-99 The nature of wind: pp. 112-115 Wind Power: p. 117 Cyclones and anticyclones: pp. 115-116 General circulation of the atmosphere; subtropical highs, trade winds, ITCZ, the westerlies, jet streams, and the rossby waves: pp. 116-126 Monsoons: pp. 127-129 Localized wind systems (dew, fog, katabatic winds, Foehn and Chinook Winds, Santa Ana Winds): pp. 129-131</p> <p>Thursday Apr. 2. Quiz 6 (covers weeks 9 and 10)</p>
<p>Week 12 Apr. 6-10</p>	<p>Atmospheric moisture The hydrological cycle: Fig. 6.1 (p. 142) Phase changes of water: pp 145-146 Evapotranspiration: pp. 147-148 Condensation: pp. 151 Clouds: p. 153-155 Precipitation: pp. 161-164 Atmospheric lifting and precipitation: pp. 164-167 Global distribution of precipitation: Fig. 6.34 (pp. 168-169)</p>
<p>Week 13 Apr. 13-17</p>	<p>Atmospheric disturbances Air masses: pp. 178-180 Fronts: pp. 180-182 Mid-latitude cyclones and anticyclones: pp. 182-186 Major tropical disturbances – Hurricanes: pp. 190-197 Localized severe weather – thunderstorms and tornados, weather radar: pp. 197-203</p> <p>Thursday April 14. Quiz 7 (covers weeks 11 and 12)</p>

<p>Week 14 Apr. 20-24</p>	<p>The hydrosphere Moisture inventory of the earth: fig. 9.1 (p. 254) How many oceans and seas? Fig. 9.4 (p. 256) Movements of ocean waters; tides, currents, and waves; The Great Pacific Garbage Patch: pp. 259-263 Permanent Ice –the cryosphere: pp. 263-266 Lakes: Fig. 9.20 (p. 267) Rivers and streams: Table 9.2 (p. 270) and Fig. 9.24 (p. 271) Underground water: pp. 271-277</p> <p>! Term Paper due Tuesday April 21 by 5 pm in t dropbox (D2L)</p>
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<p>Week 15 Apr. 27 - May 30</p>	<p>Cycles and patterns in the biosphere Biogeochemical cycles: pp. 283-290 (focus on carbon, oxygen, and nitrogen) Food chains: pp. 291-293</p> <p>Terrestrial flora and fauna Terrestrial flora; floristic terminology, environmental adaptations: pp. 308-311 Spatial associations of plants: p. 312-313 Terrestrial fauna; kinds of animals, biogeographic regions pp. 315-321 Zoogeographic regions: pp. 322-324</p> <p>Thursday April 30. Quiz 8 (covers weeks 13, 14, and 15)</p> <p>! Creative Component is due on Thursday April 30</p>
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! Quiz make-ups on the date for final. Tuesday, May 5, 10:00 am, CLB 206

Note: Remember that only those who owe me a quiz should be present.