April 1, 2010
TO: Faculty Senate Office

FROM: Andrew Klein, Core Curriculum Council Chair

RE: Approved Core Curriculum Courses from March 2010 Meeting

The following courses were approved as additions to the University’s Core Curriculum by the Core Curriculum Council during its March 29th 2010 Meeting.

ENGL 253 – Introduction to Cultural Studies and Popular Culture
Approved as Humanities

GEOG 203 – Planet Earth
Approved as moving from Tier 2 to Tier 1 Science

GEOG 205 – Environmental Change
Approved as Tier 2 Science

GEOG 420 – Geography of Terrorism
Approved as Social and Behavior Science
 Approved as International and Cultural Diversity
1. This request is submitted by Dr. Daniel S. Traber and concerns (enter prefix, number, and complete title of course): ENGL 253: Introduction to Cultural Studies and Popular Culture

2. Type of request (fill in the appropriate Core Curriculum distributive area):
   a. To be added as an approved course in (1) Humanities & (2) Visual and Performing Arts
   b. To be withdrawn as an approved course in
   c. To be moved from an approved course in to an approved course in

3. Attach twelve (12) copies of a complete course description and course syllabus sufficiently detailed to indicate topics covered and amount of time allotted to each. It is the responsibility of the submitter to provide copies of this request and attachment to the appropriate department head and college dean. Signature of the submitter below certifies that copies were delivered to the appropriate administrators on the signature date.

4. Reason(s) for request (relate justification to THECB “Assumptions and Defining Characteristics [‘Exemplarily Educational Objectives’]”: http://www.thecb.state.tx.us/CTCIIP/Core/assumption.htm

   -- When ENGL 253 was originally submitted for approval it was intended for the group of courses satisfying the Humanities requirement. It is not, however, currently listed in the catalog although it meets the THECB goals of improving students' reading, writing, speaking, and critical thinking skills (through theoretical reading assignments, in-class presentations and analytical essays). The specific stated curricular goal of "expanding students' knowledge of the human condition and human cultures, especially in relation to behaviors, ideas, and values expressed in works of human imagination and thought" is a practice to which 253 fully contributes. Popular culture studies trains students to explore how a text's meaning arises from a conjunction of formal aspects with social and political factors and then how to, in THECB's words, "articulate an informed personal reaction" to the text.

   -- With regard to also listing ENGL 253 under the Visual & Performing Arts--for which TAMUG has few offerings--the texts under analysis in 253 are predominately drawn from mediums that fit the category: film, television and popular music. Moreover, film is already recognized as a legitimate subject for the core curriculum since English department film courses are listed in this area, while the remainder of English offerings are drama surveys in which students primarily analyze plays rather than perform them.

Signature: ________________________________ Date: 11/8/08

Course Instructor/Coordinator

Received: ________________________________ Date: ________________________________

Chair, CCC

Approvals:

College Dean: ________________________________ Date: 1/6

Department Head: ________________________________ Date: ________________________________
ENGLISH 253: INTRODUCTION TO CULTURAL STUDIES AND POPULAR CULTURE

Instructor: Dr. Daniel Traber
Office: 108A CLB
Phone: 741-4382
E-Mail: traberd@tamug.edu

COURSE DESCRIPTION
An introduction to the history, theories and methods of contemporary cultural studies. The course will explore key concepts in cultural theory to examine specific aspects of popular culture as well as cultural sites and practices so as to expand upon the analytical and critical thinking skills learned in ENGL 104 and 203. Prerequisite: ENGL 104.

COURSE OBJECTIVES
The course is structured to develop your critical ability concerning the social uses and political implications of texts drawn from popular culture (film, music, television, clothing, etc.). In honing the analytical and theoretical tools necessary for a critical perspective, the ultimate goal is to help you interrogate the textual material that saturates your lives in a critical, self-conscious manner, and to then express your ideas in written form. A larger goal, then, is working toward an understanding of how the knowledge, values, and ideals used to define a national culture, thus our notions of personal selfhood, are instilled and debated via a forum that transmits its messages to millions of people.

REQUIRED TEXTS
(IG) An Introductory Guide to Cultural Theory and Popular Culture, John Storey
(R) Cultural Theory and Popular Culture: A Reader, John Storey, ed.
(CC) Common Culture: Reading and Writing about American Popular Culture, Petracca & Sorapure
(SUB) Subculture: The Meaning of Style, Dick Hebdige
(H) Handouts

CLASS POLICIES
Attendance: Since participation in class discussion and workshops is crucial to your success in this class, you must attend regularly and be prepared to participate. Excessive absences will negatively affect your grade. You are allowed 3 unexcused absences. Information concerning absences are contained in the University Student Rules Section 7 <<http://www.tamug.edu/stulife/student%20rules/Rule7.html>>. The university views class attendance as an individual student responsibility. All students are expected to attend class and to complete all assignments. Please consult the University Student Rules for reasons for excused absences, detailed procedures, deadlines, and student grievance procedures (Part III, Section 45).

Paper Deadlines: In order to pass this course, you must complete and submit all work. Grades on late papers will drop one letter grade (e.g. A to A-, B+ to B) each DAY (including the weekend) after the due date.

Essay preparation: All drafts (including revisions) must be typed using a standard typeface (e.g., 12 point Courier or 12 Times). Type the draft on white letter size (8.5" x 11") paper, using one side per page. Use 1" margins on all four sides (not 1.25", the Microsoft Word default setting) and double space to allow for comments. If you use a word processor, be sure to save your essay on a disk (do not expect your files to be safe if left on TAMUG public-use computers).
**Academic Integrity:** For many years Aggies have followed a Code of Honor: "Aggies do not lie, cheat, or steal, nor do they tolerate those who do." Upon accepting admission to Texas A&M University at Galveston, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMUG community from the requirements or the processes of the TAMUG Honor System. For additional information: [http://www.tamus.edu/honor system/>](http://www.tamus.edu/honor system/).

It is the responsibility of students and faculty members to help maintain scholastic integrity at the University by refusing to participate in or tolerate scholastic dishonesty (including plagiarism, broadly defined as passing off somebody else’s work as your own, so make sure to cite all sources whose words or ideas you use in your own work [this includes web pages]). The Aggie Code of Honor and the Scholastic Dishonesty sections in the TAMUG University Rules handbook will be the standard upon which scholastic integrity is maintained in this course. Academic dishonesty infractions could result in failure of this course. **On all course work, assignments, or examinations, the following Honor Pledge shall be pre-printed and signed by the student “On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”**

**Americans with Disabilities Act of 1990:** The Americans with Disabilities Act (ADA) is a federal antipollution 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 accommodation, please contact the Counseling Office, Northern Student Center, or call (409)740-4587.

**Family Educational and Rights to Privacy Act (FERPA):** FERPA is a federal law designed to protect the privacy of educational records by limiting access to these records, to establish the right of students to inspect and review their educational records and to provide guidelines for the correction of inaccurate and misleading data through informal and formal hearings. To obtain a listing of directory information or to place a hold on any or all of this information, please consult the Admissions & Records Office. Items that can never be identified as public information are a student’s social security number or institutional identification number, citizenship, gender, grades, GPA or class schedule. All efforts will be made in this class to protect your privacy and to ensure confidential treatment of information associated with or generated by your participation in the class.

**Assignments and Grade Distribution**

- **20%** Paper 1
  In 5 pages (min.) discuss and analyze the cultural function of a pop text (perhaps your favorite CD/song/band, leisure activity, movie, whatever). You’ll need to make sense of the text (what it may intend to achieve/say) and how a consumer may use it. Let me know what you have chosen before starting the essay.

- **30%** Paper 2
  A 7-10 page analytical research paper of a pop text. This time you must use at least three (3) secondary sources (either studies of your chosen text or theoretical works related to the topic). Non-academic sources taken from the internet, while allowed, will not count as one of the three sources. Your analysis should also be informed by the theories we will study during the semester. You may have to order the sources through interlibrary loan so don’t put off doing the research until the last moment.

- **20%** 5 POP Reports (PR):
  A 2 page critical reflection on a pop culture text or media phenomena/event. You are not simply to express whether you like or dislike a certain text. Any evaluation on that level must be backed up with a reason.
shows you have put some deeper thought into your subject. What I hope to see is a brief argument showing your ability to perform formal analysis and critical evaluation; it should also show a growing theoretical acumen as the semester progresses. Try examining different mediums (e.g., film, music, TV, etc.) in each PR to avoid repeating yourself.

-- The report will be graded with a check (✓) or check minus (✗). Each one is worth 20 points (a total of 100 pts.), the lower grade (10 pts.) will be given to those who turn in poorly developed or less substantive work.

• 10% Final Paper Presentations:
  A 5 minute presentation on your final paper topic; i.e., the subject you will be studying and the argument you will make. You will also turn in a 250-word abstract for the final paper. The presentations will be organized alphabetically. The grade is a score out of 100.

• 20% Participation: This is defined as class attendance, taking part in class discussion and workshops.

GRADING:

A  90-100
B  80-89
C  70-79
D  60-69
F  0-59

SCHEDULE

WEEK 1: Defining the Popular
IG: "What is Popular Culture?" (pp. 1-19)
Handouts:
  Alison Schneider, "At Chicago Meeting, Defenders of Traditional Curriculum Assume Embattled Air"
  Michael Berube, "The 'Elvis Costello Problem' in Teaching Popular Culture"
  Rita Felski, "Those Who Disdain Cultural Studies Don't Know What They're Talking About"
R: "Introduction: The Study of Popular Culture and Cultural Studies" (x-xvii); CC: "Why Study Popular Culture?" (1-6)

WEEK 2: On Reading and Writing
CC: "Active Reading" (6-27)
CC: "The Writing Process" (27-46)
PRP/PR #1

WEEK 3: "Culture and Civilization" Tradition
IG: Matthew Arnold & F.R. Leavis (21-35); R: Arnold, "Culture and Anarchy" & Leavis, "Mass Civilisation and Minority Culture" (7-21)
IG: "Mass Culture in America" (35-44); R: Dwight Macdonald. "A Theory of Mass Culture" (12-36)

WEEK 4: Television
CC: "The Cultural Influences of Television" (156-83)
CC: "Interpreting Television" (217-43)
PRP/PR #2

WEEK 5: Culturalism
IG: "Culturalism"(45-63); R: Raymond Williams, "The Analysis of Culture" (48-56)
IG: "CCCS and the Birmingham School" (63-71); R: Stuart Hall, "Notes on Deconstructing 'the Popular'" (442-53)
R: Michael Shudson. "The New Validation of Popular Culture" (495-503); Lawrence Grossberg, "Cultural Studies vs. Political Economy" (613-24)

WEEK 6: Popular Music
CC: Simon Frith, "Rock and Sensuality" & David Samuels, "The Rap on Rap" (265-88)
CC: Alan Wells, "Popular Music: Emotional Use and Management" & John Lewis, "Punks in LA" (296-328)
PRP/PR #3
WEEK 7: Structuralism and Post-structuralism
First Draft Paper #1 due
IG: "Structuralism" (73-89); R: Roland Barthes, "Myth Today" 109-18
IG: "Post-Structuralism" (89-96); R: Chris Weedon, "Feminism and the Principles of Post-structuralism" (172-84)
IG: "Discourse & Power" (96-99); R: Michel Foucault, "Method" (165-71)

WEEK 8: Film
CC: Mark Schaefermeyer, Film Criticism" (486-96)
Handout: Graeme Turner, from Film as Social Practice (40-42, 130-38, 146-58)
CC: Richard Dyer, "Dracula and Desire" (517-24)

WEEK 9: Marxism
Final Draft Paper #1 due
IG: "Classical Marxism" & "The Frankfurt School" (101-14); R: Marx & Engels, "Ruling Class and Ruling Ideas" & "Base and Superstructure" (191-96)
IG: "Louis Althusser" & "Antonio Gramsci" (115-23); R: Althusser, "Ideology and Ideological State Apparatuses" (153-64)
& Gramsci, "Hegemony, Intellectuals and the State" (210-24) & Tony Bennett, "Popular Culture and the 'Turn to Gramsci'" (217-24)
IG: "Mikhail Bakhtin" (123-34); R: Bakhtin, "Carnival and Carnivalesque" (250-59)

WEEK 10: Subcultures
SUB: Introduction-Chapter 4 (1-70)
SUB: Chapter 5-Conclusion (73-140)
PRP/PR #4

WEEK 11: Feminism
IG: "Theorizing Feminism" (135-139); R: Lana Rakow, "Feminist Approaches to Popular Culture" (275-91)
IG: "Feminist Theories of Pop Culture" (139-65); R: Ien Ang, "Dallas and the Ideology of Mass Culture" (265-74) & Janice Radway, "Reading the Romance" (292-309)
IG: "Masculinity" (165-67); R: Morag Shiach, "Feminism and Popular Culture" (333-41)

WEEK 12: Miscellaneous Media
CC: "Advertising" (46-59); "Shopping/Leisure" (585-88)
CC: "Sports" (417-26, 444-54); CC: "Cyberculture" (365-71)
PRP/PR #5

WEEK 13: Postmodernism
Handout: Andreas Huyssen, from After the Great Divide
IG: "Theorizing the Postmodern Condition and its Pop" (174-200)
R: Andrew Goodwin, Popular Music and Postmodern Theory" & bell hooks, "Postmodern Blackness" (403-24)

WEEK 14: Conclusion(s)
IG: "The Politics of the Popular" (202-28)
Final paper presentations
March 8, 2010

MEMORANDUM

To: Andrew Klein, Chair
   Core Curriculum Council

Through: Sarah Bednarz, Professor and Associate Dean for Academic Affairs
         College of Geosciences

Through: Doug Sherman, Professor and Head
         Department of Geography

From: Charles Lafon, Associate Professor and Departmental Undergraduate Director,
      Department of Geography

Re: Request for addition/change of core curriculum status for three Geography courses

The Department of Geography requests the following changes to the core curriculum:

(1) Movement of Geography 203 (Planet Earth) from Tier 2 to Tier 1 Natural Science;
(2) Addition of Geography 205 (Environmental Change) to Tier 2 Natural Science;
(3) Addition of Geography 420 (Geography of Terrorism) to Social and Behavioral Science;
(4) Addition of Geography 420 to International and Cultural Diversity.

Geography 203 (Planet Earth) is an introductory course in physical geography. At present it is a four-hour Tier 2 Natural Science course with integrated labs. In requesting that it be moved to Tier 1 we note that its nature and content place it more comfortably among the other fundamental science courses than with the Tier 2 courses. Until recently, however, it was not clear whether the Core Curriculum Council and the Faculty Senate wished to expand the Tier 1 list. The approval of Astronomy 111 indicates a willingness to do so. We welcome this change and ask that Geography 203 also be placed with the Tier 1 Sciences.

Geography 205 (Environmental Change) introduces how earth systems change in response to physical and anthropogenic impacts. It is a four-hour course with integrated labs. The course uses case studies from multiple time scales to clarify the dynamic nature of natural environments.

Geography 420 (Geography of Terrorism) examines social processes and responses to terrorism, including historical and spatial dimensions of terrorism and policy solutions, and the role of the U.S. in the world. The course integrates knowledge from multiple disciplines and stimulates reflection on individual, economic, political, and social aspects of life within a global society.

These three courses involve a combination of the Defining Characteristics of Basic Intellectual Competencies in the Core Curriculum, as defined by the Texas Higher Education Coordinating Board: reading, writing, listening, and critical thinking. They also fulfill the Board’s Exemplary Educational Objectives for core curriculum courses in the Natural Sciences (Geography 203 and 205) and Social and Behavioral Sciences (Geography 420).
1. This request is submitted by Department of Geography

and concerns (enter prefix, number, and complete title of course): GEOG 203: Planet Earth

2. Type of request (fill in the appropriate Core Curriculum distributive area):
   a. To be added as an approved course in
   
   b. To be withdrawn as an approved course in
   
   c. To be moved from an approved course in Natural Sciences (Tier 2)
      to an approved course in Natural Sciences (Tier 1)

3. The request should be in the form of a complete course description and course syllabus sufficiently detailed to indicate topics covered and amount of time allotted to each. It is the responsibility of the submitter to provide copies of this request and attachment to the appropriate department head and college dean. Signature of the submitter below certifies that copies were delivered to the appropriate administrators on the signature date. Please submit the completed request and backup information with signatures to the Faculty Senate in the form of a pdf file. It should be emailed to senate@tamu.edu.

4. Reason(s) for request (relate justification to THECB “Assumptions and Defining Characteristics ['Exemplarily Educational Objectives']”): http://www.thech.state.tx.us/AAR/UndergraduateEd/fos_assumpdef.cfm

This introductory course in physical geography concentrates on the earth’s natural systems — the processes, patterns, and interactions among the lithosphere, atmosphere, biosphere, hydrosphere, and cryosphere. Students build knowledge of scientific and quantitative methods in the context of understanding earth systems. They witness how scientists use these methods, in concert with technology, to uncover scientific evidence to resolve scientific debates. Often new evidence complicates the debates and leads to further questions. Learning about past and ongoing scientific debates and discoveries increases students’ awareness of how science works, while at the same time helping them learn about earth systems. Laboratory and homework assignments involve hands-on experience with collecting, analyzing, and communicating data (verbally and non-verbally through maps and graphs). By studying earth systems science, students gain insights into the natural processes that underlie environmental issues and natural hazards. Students therefore grasp aspects of the interdependence of science, culture, and technology, and they construct a basis for comprehending issues of ethics, values, and public policies that apply to environmental problems and hazards.

Signature:

Course Instructor/Coordinator

Date: March 8, 2010

Received:

Chair, CCC

Date:

Approvals:

College Dean:

Date: 3/10/10

Department Head:

Date: 3/8/10
PROPOSED MOVE OF GEOGRAPHY 203 (PLANET EARTH) FROM TIER 2 TO TIER 1 SCIENCE

Geography 203 is a fundamental science course

Geography 203 is an introductory course in physical geography. As such it concerns earth systems. It is the only core curriculum science course to integrate all the major physical systems of earth — the lithosphere, atmosphere, biosphere, hydrosphere, and cryosphere. The study of integrated earth systems counters the fragmentation of scientific inquiry and thereby aligns Geography 203 both with a classic American conception of core curriculum and with the recognition that understanding many scientific problems requires us to consider multiple processes, patterns, and scales.

The dynamic interactions among earth systems present a growing and increasingly important area of scientific inquiry. A forthcoming report (Landscapes on the Edge: New Horizons for Research on Earth’s Surface) of the National Research Council (NRC) notes that “[t]his is an auspicious time for the study of Earth surface processes, with a rapidly growing base of new scientists, a wealth of relatively unexplored scientific questions, and a new cache of powerful investigative tools.” Although directed primarily at identifying major research problems in earth surface processes, the report underscores more generally the significance of the scientific topics and approaches considered in Geography 203.

Our peer institutions recognize the importance of introductory physical geography by using courses similar to Geography 203 to satisfy the equivalent of the Tier 1 Natural Science requirement at Texas A&M. At the University of Illinois at Urbana-Champaign, for example, an introductory geography course, “Earth’s Physical Systems,” satisfies the requirement in “Natural Sciences and Technology.” UCLA lists two courses in introductory physical geography — one focused on landforms and climate, the other on biodiversity — that fulfill two semesters’ credit in their “Foundations of Scientific Inquiry” requirement. And Penn State has three geography courses, including “Introduction to Physical Geography,” that satisfy the laboratory science requirement.

Similar to other Tier 1 courses, Geography 203 focuses on fundamental processes and patterns. Many of the Tier 2 sciences, in contrast, apply these fundamental principles to specific issues, problems, or science-and-society topics. The principles addressed in Geography 203 underlie the physical dimensions of many environmental problems, such as desertification, climate change, and species extinctions. The physical processes covered in Geography 203 are those that contribute to natural hazards like floods, landslides, or wildfires. Geography 203 can play a particularly important role in the core curriculum by providing a general foundation in earth system science that will facilitate student learning in other courses, including Tier 2 Natural Science courses related to the natural environment as well as Social and Behavioral Science courses that address human-environment interactions. In this way the course addresses the University Learning Outcomes in the Academic Master Plan, especially the expectation that students will “synthesize across courses and experiences” and will “apply knowledge from core courses...in a range of contexts.”
Geography 203 exemplifies attributes of a core curriculum course in the Natural Sciences

Geography 203 consists of a three-hour lecture and a two-hour lab. The lab, an integral part of the course, reinforces the topics considered in lectures and reading assignments. The course addresses basic intellectual competencies — including reading, writing, listening, and critical thinking — that the Texas Higher Education Coordinating Board has identified as vital components of a core curriculum. Geography 203 fulfills the Board’s Exemplary Educational Objectives for core curriculum courses in the Natural Sciences:

(1) To understand and apply method and appropriate technology to the study of natural sciences. Geography 203 students gain knowledge and hands-on experience with the collection and analysis of scientific evidence, including the use of technology to obtain evidence.

(2) To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing. Geography 203 students learn about scientific and quantitative methods through numerous examples considered in lectures or readings, and by conducting laboratory and homework assignments. These assignments require students to communicate findings in writing. According to the Academic Master Plan, students also should demonstrate nonverbal communication skills, e.g., through maps and graphs. Geography 203 provides one of the best vehicles in the core curriculum for teaching these skills.

(3) To identify and recognize the differences among competing scientific theories. Earth systems processes and patterns are intrinsically interesting and occur at scales readily observable to students. Students can readily envision the types of evidence used to assess competing theories.

(4) To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies. Human impacts on earth systems continue to intensify, while human societies remain vulnerable to variability and change in those systems. A background in integrated earth system science, such as that provided by Geography 203, is imperative for preparing students for informed citizenship.

(5) To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture. The history of human technology, from fire to renewable energy, has occurred against a backdrop of Earth’s natural systems. The interaction of human cultures with natural environments is a central theme in the discipline of geography, and in Geography 203 students explore some aspects of the technology-earth system interface.

The subject matter for Geography 203 includes readily observable features that appeal to student curiosity. These include, for example, floodplains, mountains, glaciers, seasons, wind, forests, deserts, and beaches. Such features, and the processes that cause them, provide meaningful scientific puzzles for students to solve. In fact, they offer exciting research problems, too. The
NRC report referenced above sets forth nine grand research challenges in earth surface processes; all the challenges are related to topics considered in Geography 203. The scope of natural science clearly encompasses all of nature, including earth system processes that occur on landscapes outside the laboratory. Geography 203 will help provide some balance to scientific topics within Tier 1, which currently is biased toward science conducted primarily in the laboratory.

Geography 203 is structured around questions and problems; it is conceptual in nature, not descriptive. The labs are linked to other course material (lecture and reading topics) and they reflect defining characteristics of Core Curriculum Science, such as quantitative methods. Geography 203 guides students in developing critical thinking skills, "including the ability to evaluate, analyze, and integrate information from a variety of sources," an expected learning outcome expressed in the Academic Master Plan.

Physical geography includes many excellent stories — some recent, others classic — that demonstrate scientific debate, uncertainty, hypothesis-testing, observation, and elaboration/alteration of prevailing concepts. How, for example, did scientists learn that the atmosphere has mass? What factors are thought to control the number of plant or animal species that inhabit different islands, how could these ideas be tested, and what are their implications for conserving biodiversity in landscapes fragmented by human land use? What are the origins of the lakes in Scandinavia and the Midwestern U.S., and what do they indicate about climatic history and landscape evolution? In learning about scientific discoveries, students witness the use and interpretation of evidence and they come to appreciate the personal missions of interesting scientists. They also notice that scientific discoveries often depend on technology, from barometers to sediment-coring rigs to images of earth collected by satellites. They can see, too, that human technology often leaves a strong imprint on earth system processes and patterns. Recognizing how humans affect earth systems is critical in developing a basis for students to achieve the learning outcomes, articulated in the Academic Master Plan, of demonstrating "global competence" and practicing "personal and social responsibility" with regard to environmental stewardship.

Quantitative expressions provide a basis for characterizing virtually all the processes and patterns encountered in Geography 203, e.g., radiation balance, slope stability, stream discharge. Students encounter mathematical constructs that explain general principles, such as the deflection of winds and ocean currents on a rotating earth. They also use basic statistical analyses to explore empirical relationships. They learn how to use such techniques to test hypotheses, how to map quantifiable patterns, and how to report the results of analyses.

**Geography 203 pedagogy**

Students enrolled in Geography 203 build knowledge by working through problems encountered in multiple ways through the textbook, supplemental literature, homework exercises, lectures, and laboratory explorations. Laboratory and homework assignments involve hands-on problem-solving, including gathering data as well as analyzing and interpreting them. We reinforce such learning by discussing these and other problems during class meetings and by presenting related material in different, often more abstract, forms through lectures and reading assignments. We
believe it is by grappling with concepts and thinking about them in multiple ways that students truly learn science and retain knowledge. A focus on constructing models, resolving scientific questions, and applying evidence impresses upon students the fundamental cause-and-effect nature of scientific inquiry. Solving problems in physical geography also provides students an opportunity to experience the joy of scientific discovery. Our teaching approach aligns with the “Murano Report” of the Task Force on Enhancing the Undergraduate Experience, which recommends making inquiry/research-based learning (problem-driven, experiential, and active learning) the standard learning paradigm at Texas A&M (Recommendation #14).

The departmental context — the physical geography cluster

Physical geography has been one of the strengths of Texas A&M Geography for a long time. During the late 1990s and early 2000s the department began further faculty hires to expand its expertise in biogeography and geomorphology. These hires were followed by reinvestment hires that further strengthened geomorphology and biogeography, while also creating a climatology/hydrology group and a focus on coastal and marine environments. Today our integrated physical geography cluster comprises 14 faculty members with active and mutually reinforcing research agendas spanning such topics as climatic variability, coastal and aeolian geomorphology, vegetation dynamics, and environmental reconstruction. Tenured or tenure-track faculty members teach all sections of Geography 203 except for small or specialized sections such as Aggie Access, which are taught by senior Ph.D. students.

Moving Geography 203 to Tier 1 will align the course more fully with the strong research/graduate/undergraduate program that we have developed in physical geography. It will also provide a larger segment of the Texas A&M student body with the opportunity to investigate the fascinating and important concepts that comprise earth system science.
Planet Earth (GEOG 203)  
*Fall 2009*

**Instructor:** Dr. Steven Quiring  
**Office:** CSA 305C  
**Office Hours:** TR 1:00 – 2:30 p.m. and by appointment  
**Phone:** 458-1712  
**Email:** squiring@geog.tamu.edu  
**Web:** http://geog.tamu.edu/~squiring/

**Class Meeting Time and Place:** TR 9:35–10:50, O&M 103  
**Online Course Information:** http://clearning.tamu.edu/

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**Course Description:**
The ultimate goal of this course is to provide you with a better understanding of the major Earth systems that interact to create the diversity of landscapes on the Earth. This course takes a systems approach to studying the planet we inhabit. All of the Earth’s spheres – the atmosphere (weather & climate), hydrosphere (water in all its forms), lithosphere (earth's surface), and biosphere (living organisms (plants and animals)) – are examined in detail. In keeping with geographic tradition, the course also explores the interaction of Earth systems with humans (for example, human influences on climate and vegetation; effects of natural hazards such as hurricanes and landslides on human societies). The lectures and the labs explore the complex interactions between these spheres as well as how they affect (and are affected by) humans.

The lectures cover the fundamental principles that are necessary for understanding earth systems science (also referred to as physical geography) and the laboratory exercises offer “hands-on” experience to reinforce these concepts. The labs provide students with an opportunity to collect their own measurements of the sun’s radiation and the earth’s topography. Other lab exercises require students to analyze weather, climate, water budgets, hydrology, drainage basins, and vegetation data.

**Course Objectives:**
By the end of the course, students will be able to:  
- Explain the processes that operate within the major Earth systems (atmosphere, hydrosphere, lithosphere, and biosphere);  
- Describe the physical principles that govern these processes;  
- Predict the patterns generated on the Earth’s surface by the occurrence of these processes;  
- Apply critical thinking to earth science issues;  
- Formulate and test a scientific hypothesis;  
- Collect and analyze different types of data that are commonly employed in physical geography.

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**Required Textbook:**  
Course Outline:
Lecture schedule describing the topics to be covered.

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Readings</th>
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<tbody>
<tr>
<td>Tuesday, Sep 1</td>
<td>Introduction to Earth Systems Science</td>
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<td>Thursday, Sep 3</td>
<td>Essentials of Geography</td>
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<td>Tuesday, Sep 8</td>
<td>Solar Energy and Seasons</td>
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<td>Thursday, Sep 10</td>
<td>The Atmosphere</td>
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<td>Tuesday, Sep 15</td>
<td>Global Energy Balance</td>
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<td>Thursday, Sep 17</td>
<td>Global Temperatures</td>
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<td>Tuesday, Sep 22</td>
<td>Atmospheric Circulation: The Physics</td>
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<td>Thursday, Sep 24</td>
<td>Atmospheric Circulation: The Patterns</td>
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<tr>
<td><strong>Tuesday, Sep 29</strong></td>
<td><strong>EXAM #1 (Chapters 1 to 6)</strong></td>
<td></td>
</tr>
<tr>
<td>Thursday, Oct 1</td>
<td>Water and Atmospheric Moisture</td>
<td>Ch. 1 (pp. 1-25)</td>
</tr>
<tr>
<td>Tuesday, Oct 6</td>
<td>Atmospheric Stability and Cloud Formation</td>
<td>Ch. 2 (pp. 40-59)</td>
</tr>
<tr>
<td>Thursday, Oct 8</td>
<td>Air Masses and Lifting Mechanisms</td>
<td>Ch. 3 (pp. 60-87)</td>
</tr>
<tr>
<td>Tuesday, Oct 13</td>
<td>Weather Patterns</td>
<td>Ch. 4 (pp. 85-113)</td>
</tr>
<tr>
<td>Thursday, Oct 15</td>
<td>Water Resources</td>
<td>Ch. 5 (pp. 114-139)</td>
</tr>
<tr>
<td>Tuesday, Oct 20</td>
<td>Global Climate Regions</td>
<td>Ch. 6 (pp. 140-152)</td>
</tr>
<tr>
<td>Thursday, Oct 22</td>
<td>Climate Change</td>
<td>Ch. 6 (pp. 152-173)</td>
</tr>
<tr>
<td>Tuesday, Oct 27</td>
<td>The Biosphere and Geographic Ranges</td>
<td>Bring your TAMU ID and a Scantron</td>
</tr>
<tr>
<td><strong>Thursday, Oct 29</strong></td>
<td><strong>EXAM #2 (Chapters 7 to 10)</strong></td>
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<tr>
<td>Tuesday, Nov 3</td>
<td>Abiotic &amp; Biotic controls of Vegetation</td>
<td>Ch. 7 (pp. 176-190)</td>
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<tr>
<td>Thursday, Nov 5</td>
<td>Disturbance, Succession, and Vegetation Change</td>
<td>Ch. 7 (pp. 191-205)</td>
</tr>
<tr>
<td>Tuesday, Nov 10</td>
<td>Plate Tectonics, Climate Change, and Species Ranges</td>
<td>Ch. 8 (pp. 406-417)</td>
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<tr>
<td>Thursday, Nov 12</td>
<td>Speciation, Extinction, and Domestication</td>
<td>Ch. 8 (pp. 206-217)</td>
</tr>
<tr>
<td>Tuesday, Nov 17</td>
<td>Biodiversity: Gradients &amp; Control</td>
<td>Ch. 8 (pp. 218-243)</td>
</tr>
<tr>
<td>Thursday, Nov 19</td>
<td>Landform Development, Weathering, &amp; Mass Movement</td>
<td>Ch. 9 (pp. 244-275)</td>
</tr>
<tr>
<td>Tuesday, Nov 24</td>
<td>River Systems and Landforms</td>
<td>Ch. 10 (pp. 276-308)</td>
</tr>
<tr>
<td><strong>Thursday, Nov 26</strong></td>
<td><strong>THANKSGIVING (NO CLASS)</strong></td>
<td>Ch. 10 (pp. 308-319)</td>
</tr>
<tr>
<td>Tuesday, Dec 1</td>
<td>Eolian Processes and Arid Landforms</td>
<td>Ch. 19 (pp. 605-616)</td>
</tr>
<tr>
<td>Thursday, Dec 3</td>
<td>Coastal Processes and Landforms</td>
<td>Ch. 19 (pp. 633-639)</td>
</tr>
<tr>
<td>Tuesday, Dec 8</td>
<td>Glacial Processes and Landforms</td>
<td>Ch. 19 (pp. 629-633)</td>
</tr>
<tr>
<td>Friday, Dec 11</td>
<td>EXAM #3 (Chapters 11 to 17, &amp; 19)</td>
<td>Ch. 19 (pp. 626-629)</td>
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<tr>
<td>12:30-2:30 p.m.</td>
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<td>Ch. 19 (pp. 639-647)</td>
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<td>Ch. 13 (pp. 400-428)</td>
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<td>Ch. 14 (pp. 430-467)</td>
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<td>Ch. 15 (pp. 468-496)</td>
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<td>Ch. 16 (pp. 496 to 529)</td>
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<tr>
<td></td>
<td></td>
<td>Ch. 17 (pp. 530-548)</td>
</tr>
</tbody>
</table>
Grading:
Exam 1 (Tuesday, September 29) 20%
Exam 2 (Thursday, October 29) 20%
Exam 3 (Friday, December 11, 12:30–2:30 p.m.) 20%
Quizzes (in-class exercises and pop quizzes) 15%
Laboratory Exercises 25%

The grading system follows the Texas A&M University grading system:
A = Excellent
B = Good
C = Satisfactory
D = Passing
F = Failing

Grades will be assigned based on the following cutoffs: A = > 90%, B = 80-89%, C = 70-79%, D = 60-69%, F = <60%.

This is a lab-based natural science course and therefore you must participate in (and pass) the labs to pass the course. If you do not pass the labs, you will be assigned a failing grade in the class.

Exams (exams are worth 20% each):  
The three exams will be based on the material covered in the lectures and readings (however, the tests will emphasize the material covered in the lectures). The tests are non-cumulative. 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. For an absence considered excused by the university (http://student-rules.tamu.edu/rule7.htm), the student will be required to make-up the missed exam. At the instructor’s discretion, the make-up exam might be in a different format (i.e., essay instead of multiple choice) than the original exam. Please let the instructor in advance if you know you will not be able to take an exam on the scheduled date.

Laboratory Exercises (25%):  
There are a total of twelve labs over the course of the semester. These labs require students to measure and analyze data. Labs are graded based on the write-ups of the weekly lab experiments. The lab topics are:

Lab #1: How do you read a map? Measuring distance, elevation and constructing a topographic profile.

Lab #2: How would the climate change if we replaced the grassy knoll with a parking lot? Measuring the microclimate of two different environments on campus.

Lab #3: How steep is that hill? Surveying the earth’s surface.
Lab#4: How do you make a map? Constructing a topographic map.


Lab #6: Is there enough water? Calculating a climatic water balance.

Lab #7: How much precipitation fell in 1800? Analyzing tree-ring records to produce a paleoclimate reconstruction.

Lab #8: Why are there forest fires? Identifying the synoptic controls of forest fires.

Lab #9: Where have all the forests gone? Measuring vegetation characteristics with satellites.

Lab #10: How many species are there in College Station? Measuring biodiversity using field measurements and data analysis.

Lab #11: How was that landform created? Analyzing the terrain using remote sensing and topographic data.

Lab #12: How fast is the water flowing? Measuring stream velocity and discharge.

Class Attendance
The university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments. University rules regarding attendance (e.g. excused absences) can be found at http://student-rules.tamu.edu/rule7.htm.

When you come to class I expect you to pay attention. It is extremely rude to interrupt my class by talking to your friends, sending text messages, reading the newspaper, or studying for another class. Please don’t come to class if you are going to engage in these rude behaviors. Those who are disturbing the class will be asked to leave.

I have found that class attendance is usually highly correlated with student performance (the more classes you miss, the lower your grade tends to be). If one of the unannounced quizzes is given on a day that you are not in class, you will receive a zero. Students who miss class are responsible for getting the notes from a fellow member of the class.

Cellular Telephones
As a courtesy to the instructor and other students please turn off all cellular telephones and two-way pagers before the class begins. I find it extremely impolite to be interrupted by a cellular telephone when I am lecturing.

Email
All Texas A&M students should use their neo email accounts when emailing the instructor and teaching assistants. I may also send out class announcements via the neo email system as well. It is your responsibility to check your neo email account regularly.
**Academic Integrity**

It is my hope that academic dishonesty will not be a problem in this class. Texas A&M does, however, have an *Academic Integrity* policy to which both students and faculty must comply. The Aggie Honor System Office all cases of academic misconduct. Details about the Aggie Honor Policy can be found at [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor)

The materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted.

As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even is you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, [http://student-rules.tamu.edu](http://student-rules.tamu.edu), under the section “Scholastic Dishonesty.”

**Aggie Code of Honor: “An Aggie does not lie, cheat, or steal or tolerate those who do”**

[http://www.tamu.edu/aggiehonor/](http://www.tamu.edu/aggiehonor/)

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**Student Support**

*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.*

*For more information please contact:*

**Services for Students with Disabilities**

Room B118 of Cain Hall, 845-1637, [http://studentlife.tamu.edu/ssa/](http://studentlife.tamu.edu/ssa/)

*There are numerous other student support organizations on campus including:*

**Center for Academic Excellence and Academic Assistance Clearinghouse**

525 Blocker, 845-2724, [http://www.tamu.edu/cac](http://www.tamu.edu/cac)

**Student Counseling Service**

Henderson Hall, 845-4427, [http://www.scs.tamu.edu/](http://www.scs.tamu.edu/)
Lab #2: How would the climate change if we replaced the grassy knoll with a parking lot?

Objectives:
- Measure the energy balance under the trees on the grassy knoll and in Lot 55
- Calculate albedo, shortwave, longwave, and net radiation at each site
- Relate radiation measurements to surface temperature, air temperature, and site characteristics
- Describe how replacing the grassy knoll with a parking lot would change the local/regional climate

Equipment needed:
LI-250 Light Meters (2)
Net Radiometer (1)
Infrared thermometer (1)
Digital thermometer/psychrometer (1)
Calculator

Background:
Solar radiation occupies a portion of the electromagnetic spectrum. The electromagnetic spectrum is classified based on the wavelength of the radiation. The shorter the wavelength, the more energy is carried by the radiation. The shortest wavelengths include gamma and X-ray radiation. Longer wavelengths are associated with less energy and thermal infrared and microwave radiation are two examples of longwave radiation. Figure 1-2 shows a portion of the electromagnetic spectrum. The kind of radiation that is emitted by an object depends on its temperature. The sun, which has a temperature of about 6000°C, emits infrared, visible, ultraviolet, X-ray, and gamma radiation. Collectively the radiation emitted by the sun is referred to as shortwave radiation or incoming solar radiation (insolation). The insolation that reaches Earth's surface varies by season and location. You will measure insolation at both locations using the LI-250 light meters.

Once insolation reaches the Earth's surface it will either be absorbed or reflected back into space. The absorption of insolation is what causes the surface of the Earth to heat up. Albedo is the reflectivity of a surface -- a measure of how much radiation is reflected back into space. Insolation that is reflected transfers no energy to the Earth's surface and therefore does not influence the temperature of the Earth.

Different surfaces have different albedos. Some surfaces like asphalt have a very low albedo. This means that most of the insolation that reaches asphalt is absorbed and transformed into heat and very little is reflected back into space. Think about what it is like to walk barefoot on black asphalt during the summer in Texas. The asphalt is hot because it has absorbed most of the insolation. Other surfaces on the Earth have very different albedos. For example snow and ice have a very high albedo indicating that they reflect a lot of the insolation and absorb very little.
Because the surface of the Earth is varied with regard to its composition, the amount of energy that is absorbed by different parts of the Earth varies with space and with time of year. So, in addition to the amount of insolation varying across the globe as a result of atmospheric effects, angle of incidence and the distance of the Earth from the Sun, the ability of the surface to absorb insolation also plays an important role in the radiation budget of the Earth.

Albedo is a quantitative measure. Albedo varies between 0 (indicates that the surface is a perfect absorber) and 1 (indicates that the surface is a perfect reflector). Some sample albedo values are listed in Table A.

<table>
<thead>
<tr>
<th>Surface</th>
<th>Albedo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>0.05 to 0.10</td>
</tr>
<tr>
<td>Concrete</td>
<td>0.17 to 0.27</td>
</tr>
<tr>
<td>Sand</td>
<td>0.20 to 0.30</td>
</tr>
<tr>
<td>Grass</td>
<td>0.25 to 0.30</td>
</tr>
<tr>
<td>Forest</td>
<td>0.10 to 0.20</td>
</tr>
<tr>
<td>Water</td>
<td>0.10 to 0.60</td>
</tr>
<tr>
<td>Snow</td>
<td>0.80 to 0.95</td>
</tr>
<tr>
<td>Ice</td>
<td>0.30 to 0.40</td>
</tr>
</tbody>
</table>

You will measure the albedo at both locations using the same light meters that you used to measure insolation.

The Earth is also continuously emitting radiation since all objects with a temperature greater than absolute zero (-273.15°C) emit electromagnetic radiation. However, unlike the sun, the earth emits longwave radiation. We can use the Stefan-Boltzmann Law to determine the amount of energy emitted by an object.

**Stefan-Boltzmann Law:** Energy flux density (Energy intensity) is a function of the fourth power of absolute temperature:

\[
E = \sigma T^4
\]

Where:
- \( E \) = energy emitted in \( W \text{ m}^{-2} \)
- \( \sigma = 5.67 \times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4} \)
- \( T \) = temperature of the object (e.g., earth's surface) in degrees Kelvin

For example, if the temperature of an object is 20°C, the total amount of energy emitted by that object is:
- 1) first convert from °C to absolute temperature (degrees Kelvin):
  - \( 20°C + 273.15 = 293.15 \text{ K} \)
- \( 20°C + 273.15 = 293.15 \text{ K} \)
2) \[ E = \sigma \times 293.15^4 \]
\[ E = 418.74 \text{ W m}^{-2} \]

Therefore the total amount of energy emitted by an object with a temperature of 20°C is 418.74 W m\(^{-2}\).

**Swinbank equation:** Provides an estimate of downwelling longwave radiation under clear sky conditions:

\[ \text{LWR}_\downarrow = 5.31 \times 10^{13} \text{ W m}^{-2} \text{ K}^{-6} \times T^6 \]

Where:
- \( \text{LWR}_\downarrow \) = downwelling longwave radiation (W m\(^{-2}\))
- \( T \) = air temperature (measured at 1.5 m) in degrees Kelvin

For example if the air temperature is 20°C, the estimate amount of LWR\(_\downarrow\) is:

1) first convert from °C to absolute temperature (degrees Kelvin):
\[
\begin{align*}
\text{°C} &+ 273.15 = \text{K} \\
20°C &+ 273.15 = 293.15 \text{ K}
\end{align*}
\]

2) use Swinbank equation:
\[
\begin{align*}
\text{LWR}_\downarrow &= 5.31 \times 10^{13} \text{ W m}^{-2} \text{ K}^{-6} \times T^6 \\
\text{LWR}_\downarrow &= 5.31 \times 10^{13} \text{ W m}^{-2} \text{ K}^{-6} \times (293.15)^6
\end{align*}
\]
\[ \text{LWR}_\downarrow = 337.0 \text{ W m}^{-2} \]

Therefore the total amount of LWR\(_\downarrow\) under clear sky conditions when the air temperature is 20°C is 337.0 W m\(^{-2}\).

**Instructions:**

We will be measuring a variety of variables at the two sites. The first site is under the trees on the grassy knoll in front of the O&M building. The second site is in parking lot 55 (make sure that you are working in empty part of the parking lot). We will be taking one set of measurements every minute for a 20 minute period. At each site please also note the sky conditions (e.g., sunny, cloudy, partly cloudy, etc.), time period over which the observations were taken (e.g., 10:45 to 11:05 a.m.), and the percentage of the sky hemisphere obstructed (e.g., how much of the sky you can see) at each site during the observations. Please fill in Table 1 with your observations for Site 1 (Grassy knoll) and Table 2 with your observations for Site 2 (Parking lot).

1) **Measure incoming shortwave radiation (R\(_{SW\uparrow}\))**

Using upward facing LI-250
To measure incoming shortwave radiation, hold the sensor approximately 1 m above the surface for which you are interested in the albedo. Make sure that the sensor is facing upwards (e.g., toward the sky). Take a reading every minute for 20 minutes and record it in Table 1 (grassy knoll) or Table 2 (parking lot).

2) **Measure reflected shortwave radiation** ($R_{SW\uparrow}$)
   
   Using downward facing LI-250

   To measure the reflected shortwave radiation (which should be done while the incoming shortwave radiation measurement is taken), hold the sensor facing down, but at a slight angle and take a reading every minute for 20 minutes and record it in Table 1 (grassy knoll) or Table 2 (parking lot). It is important that you hold the sensor out and away from your body so that shadows do not interfere with the measurement.

3) **Calculate albedo**
   
   To calculate the albedo of each surface, simply divide the reflected radiation by the incoming shortwave radiation. Record your results in Tables 1 and 2.

4) **Measure outgoing longwave radiation** ($LWR_{\downarrow}$)
   
   Use infrared temperature gun

   Take temperature of the surface using the infrared temperature gun and calculate $LWR_{\downarrow}$ using the Stefan-Boltzmann equation. Take a reading every minute for 20 minutes and record it in Table 1 (grassy knoll) or Table 2 (parking lot).

5) **Measure incoming longwave radiation** ($LWR_{\uparrow}$)
   
   Use infrared temperature gun or the digital thermometer

   A) If sky is cloudy, use the infrared temperature gun and take the temperature of the clouds/sky

   B) If sky is clear, use Swinbank equation (need to measurement air temperature at 1.5 m)

   Take a reading every minute for 20 minutes and record it in Table 1 (grassy knoll) or Table 2 (parking lot).

6) **Measure net radiation**
   
   Use Kipp & Zonen Net Radiometer

   The NR-Lite measures all incoming and outgoing radiation (both shortwave and longwave). The upward facing sensor measures all incoming radiation which includes direct and diffuse shortwave radiation plus downwelling longwave radiation. The downward facing sensor measures all outgoing radiation which consists of reflected shortwave radiation and upwelling longwave radiation. The sensor automatically calculates the difference between these two readings and provides the net radiation. Once
the sensor is connected to volt meter (> 1 MΩ impedance) the output can be converted to Watt per square meter (W/m²) using:

Net radiation (W/m²) = output voltage (µV) / sensitivity

Where:
sensitivity = 13.3 µV/W/m²

Requirements for accurate measurements:
a) rigid support; mount instrument 1.5 m above the surface
b) point rod towards nearest pole & collector towards equator
c) level instrument
d) no (light) wind (particularly for wind speeds > 3 m/s)
e) unobstructed horizon (distance to trees is at least 10 times their height); mount the sensor so that no shadows will be cast on it

Typical values:
night = -200 to 0 W/m²
full cloud = 0 to 200 W/m²
partly cloudy = 120 to 500 W/m²
clear and sunny = 500 to 1000 W/m²

Take a reading every minute for 20 minutes and record it in Table 1 (grassy knoll) or Table 2 (parking lot).

7) Measure Air Temperature and Relative Humidity
   Digital thermometer/psychrometer

Take measurements of air temperature and relative humidity (at 1.5 m) every minute for 20 minutes and record it in Table 1 (grassy knoll) or Table 2 (parking lot).

8) Calculate net radiation (Rn)

Calculate the net radiation for each 1 minute interval using the measurements of shortwave and longwave radiation.

\[ R_n = (R_{SW\downarrow} - R_{SW\uparrow}) + (R_{LW\downarrow} - R_{LW\uparrow}) \]

Questions:

1) Which site had the higher air temperature? Why? Which site had the higher surface temperature? Why?

2) Which site had the highest relative humidity? Why?
3) What is shortwave radiation (insolation)? Why does the amount of insolation received at the earth’s surface vary from one location to another? Why does it vary from one season to another?

4) What is longwave radiation? What factors influence the amount longwave radiation emitted by the earth?

5) What is net radiation? What factors influence the amount of net radiation received at a location? How does it vary by time of day? How does it vary by season?

6) Why do you think we take measurements over 20 minutes?

7) What is the difference between the average longwave radiation at Site 1 and Site 2? Why is it different?

8) What is the difference between shortwave radiation at Site 1 and Site 2? Why is it different?

9) How does the measured net radiation (calculated using the net radiometer) compare to the calculated net radiation? If the numbers are different, please provide some reasons for why you think those differences occurred.

10) How do the variations in longwave, shortwave, and net radiation relate to the temperature and humidity measured at each site?

11) If we removed the trees and vegetation at Site 1 how would this influence the longwave, shortwave, and net radiation fluxes?

12) How do you think replacing the grassy knoll with a parking lot would influence the microclimate in this part of campus?
March 8, 2010

MEMORANDUM

To: Andrew Klein, Chair  
Core Curriculum Council

Through: Sarah Bednarz, Professor and Associate Dean for Academic Affairs  
College of Geosciences

Through: Doug Sherman, Professor and Head  
Department of Geography

From: Charles LaFon, Associate Professor and Departmental Undergraduate Director,  
Department of Geography

Re: Request for addition/change of core curriculum status for three Geography courses

The Department of Geography requests the following changes to the core curriculum:

(1) Movement of Geography 203 (Planet Earth) from Tier 2 to Tier 1 Natural Science;
(2) Addition of Geography 205 (Environmental Change) to Tier 2 Natural Science;
(3) Addition of Geography 420 (Geography of Terrorism) to Social and Behavioral Science;
(4) Addition of Geography 420 to International and Cultural Diversity.

Geography 203 (Planet Earth) is an introductory course in physical geography. At present it is a four-hour Tier 2 Natural Science course with integrated labs. In requesting that it be moved to Tier 1 we note that its nature and content place it more comfortably among the other fundamental science courses than with the Tier 2 courses. Until recently, however, it was not clear whether the Core Curriculum Council and the Faculty Senate wished to expand the Tier 1 list. The approval of Astronomy 111 indicates a willingness to do so. We welcome this change and ask that Geography 203 also be placed with the Tier 1 Sciences.

Geography 205 (Environmental Change) introduces how earth systems change in response to physical and anthropogenic impacts. It is a four-hour course with integrated labs. The course uses case studies from multiple time scales to clarify the dynamic nature of natural environments.

Geography 420 (Geography of Terrorism) examines social processes and responses to terrorism, including historical and spatial dimensions of terrorism and policy solutions, and the role of the U.S. in the world. The course integrates knowledge from multiple disciplines and stimulates reflection on individual, economic, political, and social aspects of life within a global society.

These three courses involve a combination of the Defining Characteristics of Basic Intellectual Competencies in the Core Curriculum, as defined by the Texas Higher Education Coordinating Board: reading, writing, listening, and critical thinking. They also fulfill the Board’s Exemplary Educational Objectives for core curriculum courses in the Natural Sciences (Geography 203 and 205) and Social and Behavioral Sciences (Geography 420).
1. This request is submitted by Department of Geography

   and concerns (enter prefix, number, and complete title of course): GEOG 205: Environmental Change

2. Type of request (fill in the appropriate Core Curriculum distributive area):
   a. To be added as an approved course in Natural Sciences
   b. To be withdrawn as an approved course in
   c. To be moved from an approved course in
      to an approved course in

3. The request should be in the form of a complete course description and course syllabus sufficiently detailed to indicate topics covered and amount of time allotted to each. It is the responsibility of the submitter to provide copies of this request and attachment to the appropriate department head and college dean. Signature of the submitter below certifies that copies were delivered to the appropriate administrators on the signature date. Please submit the completed request and backup information with signatures to the Faculty Senate in the form of a pdf file. It should be emailed to senate@tamu.edu.

4. Reason(s) for request (relate justification to THECB “Assumptions and Defining Characteristics ['Exemplarily Educational Objectives']”): http://www.theccb.state.tx.us/AAR/UndergraduateEd/fos_assumpdef.cfm

   The course expands students’ knowledge of natural processes and change in the biophysical environment around them through the use of place-based case studies. The case studies will include a critical examination of the methods and technology used to identify and quantify environmental change, including discussions on the how the inherent limitations of these leads to conflict and uncertainty over our understanding of biophysical systems and change. Through a combination of written assignments and oral presentations in the laboratory, students will demonstrate their understanding of the biophysical environment from an earth systems perspective, and critically evaluate the dynamic nature of the biophysical environment over a range of space and time scales. The lectures cover the fundamental principles for understanding environmental change and the laboratory exercises will offer hands-on experience in field, laboratory and archival techniques to reinforce these concepts. In both the lectures and laboratories, students will respond critically to readings about environmental change and controversies in the media and the literature. This will be a platform for students to examine how environmental change of the past and present has and continues to affect society, which feedbacks to the environment.

   Signature: ___________________________ (Date) 3/8/10

   Course Instructor/Coordinator

   Received: ___________________________ (Date)

   Chair, CCC

   Approvals:

   College Dean: ___________________________ (Date) 3/8/10

   Department Head: ___________________________ (Date)
TEXAS A&M UNIVERSITY
DEPARTMENT OF GEOGRAPHY
GEOG 205 ENVIRONMENTAL CHANGE

INSTRUCTOR: Dr. Chris Houser  EMAIL: chouser@tamu.edu
OFFICE HOURS: TBA  OFFICE: CSA205C
LECTURES: TBA
LABORATORY: Online Labs during assigned times
PREREQUISITE: None

ONLINE COURSE INFORMATION: http://elearning.tamu.edu

OBJECTIVES: The objective of this course is to explore our dynamic biophysical environment and to consider how it has and will continue to change. Through the use of place-based case studies, students are introduced to the biophysical environment using a systems approach that describes the feedbacks between the atmosphere, hydrosphere, lithosphere and biosphere at a range of temporal scales. Online laboratory assignments during assigned times will require students to acquire and manipulate data on environmental change, which will reinforce lecture material and explore the techniques used to identify and measure natural and anthropogenic changes to the biophysical environment at a range of scales.

LEARNING OUTCOMES: At the end of the course, students are expected to:

1. Identify and describe the important attributes, elements and connections within the physical environment from a systems perspective
2. Describe the dynamic nature of the environment at a range of spatial and temporal scales and how change results from adjustments between the different components
3. Understand and apply methods and technology to measuring environmental change and recognize the limitations to these methods in predicting change
4. Describe how environmental change of the past and present has and continues to affect society and the feedbacks therein


COURSE EVALUATION SCHEME: Laboratory Assignments 25%
Exam 1 25%
Exam 2 25%
Exam 3 25%

The three exams will be based on the material covered in the lectures and readings (however, the tests will emphasize the material covered in the lectures). The tests are non-cumulative. 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. For an absence considered excused by the university (http://studentrules.tamu.edu/rule7.htm), the student will be required to make-up the missed exam. At the instructor's discretion, the make-up exam might be in a different format (i.e., essay instead of multiple choice) than the original exam.

**GRADING SCHEME:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>≥90%</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>80-89%</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>70-79%</td>
</tr>
<tr>
<td>D</td>
<td>Passing</td>
<td>60-69%</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>≤59%</td>
</tr>
</tbody>
</table>

**SCHEDULE**

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Reading</th>
<th>Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>From Mountains to Sand</td>
<td>Chapter 7</td>
<td>Indicators of Environmental Change</td>
</tr>
<tr>
<td>2</td>
<td>Origins of the Continents</td>
<td>Chapter 8</td>
<td>Reconstructing Past Environments</td>
</tr>
<tr>
<td>3</td>
<td>Global Climate Regions and Plate Tectonics</td>
<td>Chapters 3-5</td>
<td>Climate in Rocks and Ice</td>
</tr>
<tr>
<td>4</td>
<td>The Changing Climate</td>
<td>Chapters 10-12</td>
<td>Trees as Climate Records</td>
</tr>
<tr>
<td>5</td>
<td>Under a Mile of Ice</td>
<td>Chapters 6 and 14</td>
<td><strong>Exam 1</strong></td>
</tr>
<tr>
<td>6</td>
<td>Little Ice Age</td>
<td>Chapter 15</td>
<td>Environmental Change in the Arts and Literature</td>
</tr>
<tr>
<td>7</td>
<td>Ecosystems Change</td>
<td>Chapter 9 and 18</td>
<td>Paleobotanical Evidence of Change</td>
</tr>
<tr>
<td>8</td>
<td>Rainfall and Drought</td>
<td>Readings from Changing Climate of Texas”</td>
<td>Meteorological and Streamflow Records</td>
</tr>
<tr>
<td>9</td>
<td>Valleys and Streams</td>
<td></td>
<td>Interpreting the Landscape</td>
</tr>
<tr>
<td>10</td>
<td>Winding Down to the Sea</td>
<td></td>
<td><strong>Exam 2</strong></td>
</tr>
<tr>
<td>11</td>
<td>Dammed Rivers- the Aswan Dam</td>
<td>Readings from “Dams &amp; Rivers”</td>
<td>California’s Eroding Coast</td>
</tr>
<tr>
<td>12</td>
<td>Deforestation in the Amazon</td>
<td></td>
<td>Land-use/Land-Cover Change</td>
</tr>
<tr>
<td>13</td>
<td>Desertification in the Sahel and China</td>
<td>Reading from “Causes and Progression of Deforestation”</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Sea Level and Subsidence</td>
<td></td>
<td><strong>Exam 3</strong></td>
</tr>
</tbody>
</table>
COURSE AND UNIVERSITY POLICIES:

CLASS ATTENDANCE: The University views class attendance as the responsibility of the student. Students will be assigned a time when they are required to attend the online laboratories, which will also be attended by the professor and teaching assistant. While attendance is not part of your assessment, your performance is directly related to your attendance - the more classes you miss the lower your grade tends to be. Students who miss class are responsible for getting the notes from a classmate. For more information on University Excused Absences please http://student-rules.tamu.edu.

EMAIL: All Texas A&M students should use their official TAMU email accounts when emailing the instructor or the teaching assistant. I may send out class announcements via the neo email system and it is your responsibility to check your account regularly.

THE AMERICANS WITH DISABILITIES ACT (ADA) 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 Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

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If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, http://student-rules.tamu.edu/, under the section "Scholastic Dishonesty."

HONOR SYSTEM AND ACADEMIC DISHONESTY: "An Aggie does not lie, cheat, or steal, or tolerate those who do." Texas A&M has a Scholastic Dishonesty policy to which both students and faculty must comply. If you have any questions about the University’s Scholastic Dishonesty Policy, please review the Student Rules or see me. The Aggie Honor program is the new program that will handle all cases of academic dishonesty. The Aggie Honor program website is located at http://www.tamu.edu/aggiehonor.
March 8, 2010

MEMORANDUM

To: Andrew Klein, Chair  
Core Curriculum Council

Through: Sarah Bednarz, Professor and Associate Dean for Academic Affairs  
College of Geosciences

Through: Doug Sherman, Professor and Head  
Department of Geography

From: Charles Lafon, Associate Professor and Departmental Undergraduate Director,  
Department of Geography

Re: Request for addition/change of core curriculum status for three Geography courses

The Department of Geography requests the following changes to the core curriculum:

(1) Movement of Geography 203 (Planet Earth) from Tier 2 to Tier 1 Natural Science;
(2) Addition of Geography 205 (Environmental Change) to Tier 2 Natural Science;
(3) Addition of Geography 420 (Geography of Terrorism) to Social and Behavioral Science;
(4) Addition of Geography 420 to International and Cultural Diversity.

Geography 203 (Planet Earth) is an introductory course in physical geography. At present it is a four-hour Tier 2 Natural Science course with integrated labs. In requesting that it be moved to Tier 1 we note that its nature and content place it more comfortably among the other fundamental science courses than with the Tier 2 courses. Until recently, however, it was not clear whether the Core Curriculum Council and the Faculty Senate wished to expand the Tier 1 list. The approval of Astronomy 111 indicates a willingness to do so. We welcome this change and ask that Geography 203 also be placed with the Tier 1 Sciences.

Geography 205 (Environmental Change) introduces how earth systems change in response to physical and anthropogenic impacts. It is a four-hour course with integrated labs. The course uses case studies from multiple time scales to clarify the dynamic nature of natural environments.

Geography 420 (Geography of Terrorism) examines social processes and responses to terrorism, including historical and spatial dimensions of terrorism and policy solutions, and the role of the U.S. in the world. The course integrates knowledge from multiple disciplines and stimulates reflection on individual, economic, political, and social aspects of life within a global society.

These three courses involve a combination of the Defining Characteristics of Basic Intellectual Competencies in the Core Curriculum, as defined by the Texas Higher Education Coordinating Board: reading, writing, listening, and critical thinking. They also fulfill the Board’s Exemplary Educational Objectives for core curriculum courses in the Natural Sciences (Geography 203 and 205) and Social and Behavioral Sciences (Geography 420).
1. This request is submitted by ___Department of Geography

and concerns (enter prefix, number, and complete title of course): GEOG 420: Geography of Terrorism

2. Type of request (fill in the appropriate Core Curriculum distributive area):
   a. To be added as an approved course in ___International & Cultural Diversity
   b. To be withdrawn as an approved course in
   c. To be moved from an approved course in
      to an approved course in

3. The request should be in the form of a complete course description and course syllabus sufficiently detailed to indicate topics covered and amount of time allotted to each. It is the responsibility of the submitter to provide copies of this request and attachment to the appropriate department head and college dean. Signature of the submitter below certifies that copies were delivered to the appropriate administrators on the signature date. Please submit the completed request and backup information with signatures to the Faculty Senate in the form of a pdf file. It should be emailed to senate@tamu.edu.

4. Reason(s) for request (relate justification to THECB "Assumptions and Defining Characteristics ['Exemplarily Educational Objectives']"): http://www.thech.state.tx.us/AAR/UndergraduateEd/fos_assumpdef.cfm

Because the International & Cultural Diversity requirement is an Institutionally Designated Option, THECB provides no specific Exemplary Educational Objectives. However, GEOG 420 is consistent with the broad perspectives in the core curriculum. Specifically, the course helps students to attain broad and multiple perspectives on their relationship to the larger society and world, and to understand the responsibilities of living in a culturally and ethnically diversified world. It stimulates the capacity to discuss and reflect upon individual, political, economic, and social aspects of life to understand ways in which to be a responsible member of society. It requires students to integrate knowledge from multiple disciplines to understand the geography of terrorism, which occurs on a global scale in different regions and cultures. The course also aligns with aspects of THECB's social and behavioral sciences Exemplary Educational Objectives that are relevant to cultural and international diversity.

Signature: [Signature]
Course Instructor/Coordinator 3/1/10 (Date)

Received: Chair, CCC 3/1/10 (Date)

Approvals:
College Dean: 3/10/10 (Date)
Department Head: 3/18/10 (Date)
SYLLABUS
The Geography of Terrorism
Texas A&M University
Fall Semester 2010

PROFESSOR
Dr. Erik Prout
Office Hours:
CSA 301-C (Teague Annex)
M 1:30-3:30 & R 2:30-3:30
Phone: 979-458-3379

COURSE
Geography 420-500
Lecture/Discussion 3 credit hours
Class meets in CSA 302
every T/R 3:55-5:10
Internet: http://geog.tamu.edu/~prout

Statement:
The events of September 11th, 2001 brought modern terrorism into the everyday life of most Americans with powerful visual images and as the topic of ordinary conversations. In reality, terrorism has been a part of international relations for last fifty years, and other forms of control, coercion, and resistance have been equally violent and historically present. As the United States pursues a War on Terror(ism), the academic community should respond and discuss the topic in light of our different backgrounds and points of view.

The Geography of Terrorism (GEOG 420) is a course that examines the current and historical geographies of terrorism at various scales, multiple regions, and differing interpretations. Three themes of inquiry are:
(1) Defining terrorism across geographical space,
(2) Using geographical approaches such as regions and proximity to elaborate a better understanding of terrorism, and
(3) Assessing and discussing of individual threats, personal obligations, and collective/citizen responses, which by extension policy ramifications for the American government.

The first theme tackles the definition of terrorism with examples from around the world and even different segments of the federal government. In addition to politico-legal definitions, the aspect of mass-media society dealing with terminology and ordinary people understanding complex events through media hype and misinformation. The perspective of place in tragic events is explored, and how we memorialize sites of violence such as the proposed WTC memorial.

The second theme utilizes the concept of a region, particularly a cultural region, and explores whether a regional geography of terrorism exists. Using core-periphery as a guide, a comparison can be made between the reported terrorist activities with popular American perceptions of the world.

The third theme allows the students to explore questions of what we should do about terrorism. The topics include personal safety, collective responses to acts of terrorism, physical security around specific places, and government policy towards identifiable actors that commit and support terrorism.

The successful outcome of this course, which is my goal, is to (1) facilitate your understanding of global terrorism through the use of various geographical inquiries, (2) increase your knowledge and proficiency of the various international terrorist hotspots, (3) develop a dialogue of "terrorism" that incorporates physical security and counter-measures, and (4) convey the importance of intellectual pursuits that construct geographical places, regions, and ideas.
Requirements / Readings:
The prerequisite for this course is upper level standing. Only Juniors and Seniors will be allowed to enroll in GEOG 420. In addition to the required materials for purchasing, you also need access to an atlas, internet, and current events.

REQUIRED MATERIALS:

Evaluation / Grading:
I use a total point scheme for grading. Every examination and exercise has a set value of points, and the final grade is determined from the total number of points accumulated from all of the evaluations. I set the point/grade thresholds only after evaluating the whole class and the point distribution. The percent breakdowns and general descriptions of the evaluations are as follows:

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- Preparation deadlines 50 points
- Research paper 400 points
- Oral presentation 50 points

PARTICIPATION: Participation is an essential part of the course and grade. There will be group activities and class discussion that require everybody’s contribution; therefore attendance becomes an essential part of the course. You’ll need to keep up with the weekly readings. Weekly “Reaction” write ups will be due every Thursday before discussions; selected students will help lead the discussions. Excused absences are by university policy!
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- A 900-1000 points
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- F < 600 points is failing.
Classroom Policies:

I have high expectations of my students because we are in a learning environment and we should set high goals and standards. In return, I commit myself to equally reasonable expectations; here are a few key points.

- **Conducive learning environment:** late arrivals and early departures should be extreme situations; disruptive behavior of any sort is wrong. You must minimize the distractions especially unnecessary noise because it interferes with others ability to hear me. Cell phones and audio devices must be turned off before entering the lecture hall.

- **Academic Integrity Statement:** The Aggie Honor Code states:
  
  "An Aggie does not lie, cheat, or steal or tolerate those who do."

Please refer to the Aggie Honor Code and Honor Council Rules and Procedures on the web at [http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor). Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

- **FERPA/grade disclosure:** All personal information concerning your performance/grade in this course is covered by federal privacy legislation. No grades or status questions will be addressed over the telephone or by email. Remember, serious communication should be in person.

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- **Student Handbook:** For rules and regulations regarding class attendance; behavior; missed classes, homework, quizzes, and exams; and others, please consult the Texas A&M University Regulations Handbook at [http://student-rules.tamu.edu/](http://student-rules.tamu.edu/).
Tentative Course Schedule

Tuesdays—Lecture
Thursdays—Discussion/Debate

Week One
Howdy; syllabus
Defining Terrorism; Introductory Write-up

Week Two
Characterization of Modern Terrorism
Reaction Write-up 1

Week Three
Reaction Write-up 2
[Research Topic Idea]

---

Week 4

Topic: Terrorism: state sponsors, international, & domestic
Readings:
Violence & Terrorism, Units Three, Four, Five
Pick one article from each Unit.

• Reaction #3

Week 5

Topic: Terrorism: media, religion, & women
Readings:
Violence & Terrorism, Units Six, Seven, Eight
Pick one article from each Unit.

• Reaction #4
• Term paper outline and initial bibliography (5-10 possible sources)

Week 6

Topic: Terrorism and WMD
Readings:
WMD & Terrorism, Unit II
Pick two articles and appendix A-2

• Reaction #5

Week 7

Topic: Terrorism and WMD
Readings:
WMD & Terrorism, Unit II
Four Case Studies

• Reaction #6

Week 8

Topic: Terrorism and WMD
Readings:
WMD & Terrorism, Unit III
Three Case Studies

• Reaction #7

Week 9

Topic: Future Weapons
Readings:
Violence & Terrorism, Units Ten
WMD & Terrorism, article 3-10 “preemption”

- Reaction #8

Week 10
SWAAG (TBA)

**Topic: Weapons of Mass Destruction**

- Reaction #6 2.5%

Readings: (Chapter 5 pp. 156-203)
- Terrorism and Counter Terrorism 5.1
- Terrorism and Counter Terrorism 5.2
- Terrorism and Counter Terrorism 5.3

Week 11

**Topic: Counter Terrorism 1 (global)**

- Reaction #7 2.5%

Readings:
- Terrorism and Counter Terrorism part 2 / Chapter 7 intro
- Terrorism and Counter Terrorism 7.1
- Violence & Terrorism, article #22

Week 12

**Topic: Counter Terrorism 2 (local)**

- Reaction #8 2.5%

Readings:
- Violence & Terrorism, Unit Ten: articles #36, #37, #38, #39, & #40
- TBA

Week 13

**Topic: Prospects of / Future with Terrorism**

- Reaction #9 2.5%

Readings:
- Violence & Terrorism, various articles #41 & #45
- Violence & Terrorism, Unit Twelve: articles #46, #47 & #48
- New Global Terrorism Ch. 21

Week 14

- Research presentations/discussions 5%

Week 15

- RESEARCH Paper / Projects (4/21) 40.0%

- Research presentations/discussions 5%
- Research presentations/discussions 5%

Weeks 16 & 17

- Research presentations/discussions 5%
- Final exam meeting 5/5?
March 8, 2010

MEMORANDUM

To: Andrew Klein, Chair
Core Curriculum Council

Through: Sarah Bednarz, Professor and Associate Dean for Academic Affairs
College of Geosciences

Through: Doug Sherman, Professor and Head
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TEXAS A&M UNIVERSITY CORE CURRICULUM
Request for Course Addition, Change or Withdrawal
Submitted to the Chair, Core Council (CCC)
Office of the Faculty Senate, MS 1225

1. This request is submitted by ___________________________

and concerns (enter prefix, number, and complete title of course): GEOG 420: Geography of Terrorism

2. Type of request (fill in the appropriate Core Curriculum distributive area):
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   The course expands students' knowledge of social processes and institutional responses to global scale violence associated with contemporary terrorism. In addition to current global conflicts, which require students to analyze and critique the current role of the United States in the world, the course explores the historical and spatial dimensions of mass violence. Without targeting any one culture group or world region, the course requires students to critically assess policy solutions, to understand the rhetorical dimensions to terrorism, and to differentiate evidence in terms of perspective and quality of the sources.

Signature: ____________________________
Course Instructor/Coordinator

Date: ___/___/___

Received: ____________________________
Chair, CCC

Date: ___/___/___

Approvals:

College Dean: ____________________________

Date: ___/___/___

Department Head: ____________________________

Date: ___/___/___

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SYLLABUS
The Geography of Terrorism
Texas A&M University
Fall Semester 2010

PROFESSOR
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Phone: 979-458-3379

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- **Academic Integrity Statement**: The Aggie Honor Code states:
  
  *An Aggie does not lie, cheat, or steal or tolerate those who do.*

  Please refer to the Aggie Honor Code and Honor Council Rules and Procedures on the web at http://www.tamu.edu/aggiehonor. Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor System. Students will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the TAMU community from the requirements or the processes of the Honor System. As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated.

- **FERPA/grade disclosure**: All personal information concerning your performance/grade in this course is covered by federal privacy legislation. No grades or status questions will be addressed over the telephone or by email. Remember, serious communication should be in person.

- **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; website is http://studentlife.tamu.edu/.

- **Copyrights**: All materials used in this course are copyrighted. These materials include but are not limited to syllabi, quizzes, exams, lab problems, in-class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless permission is expressly granted. Reproducing course material for other than personal use will be regarded as copyright infringement and referred to the University lawyers for action.

- **Student Handbook**: For rules and regulations regarding class attendance; behavior; missed classes, homework, quizzes, and exams; and others, please consult the Texas A&M University Regulations Handbook at http://student-rules.tamu.edu/
Tentative Course Schedule

Tuesdays—Lecture
Thursdays—Discussion/Debate

Week One
Howdy; syllabus
Defining Terrorism; Introductory Write-up

Week Two
Characterization of Modern Terrorism
Reaction Write-up 1

Week Three
Reaction Write-up 2
[Research Topic Idea]

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Week 4
Topic: Terrorism: state sponsors, international, & domestic
Readings:
Violence & Terrorism, Units Three, Four, Five
Pick one article from each Unit.
• Reaction #3

Week 5
Topic: Terrorism: media, religion, & women
Readings:
Violence & Terrorism, Units Six, Seven, Eight
Pick one article from each Unit.
• Reaction #4
• Term paper outline and initial bibliography (5-10 possible sources)

Week 6
Topic: Terrorism and WMD
Readings:
WMD & Terrorism, Unit II
Pick two articles and appendix A-2
• Reaction #5

Week 7
Topic: Terrorism and WMD
Readings:
WMD & Terrorism, Unit II
Four Case Studies
• Reaction #6

Week 8
Topic: Terrorism and WMD
Readings:
WMD & Terrorism, Unit III
Three Case Studies
• Reaction #7

Week 9
Topic: Future Weapons
Readings:
Violence & Terrorism, Units Ten
WMD & Terrorism, article 3-10 “preemption”
• Reaction #8

Week 10
SWAAG (TBA)
  Topic: Weapons of Mass Destruction
  • Reaction #6  2.5%
Readings: (Chapter 5 pp. 156-203)
  Terrorism and Counter Terrorism 5.1
  Terrorism and Counter Terrorism 5.2
  Terrorism and Counter Terrorism 5.3

Week 11
  Topic: Counter Terrorism 1 (global)
  • Reaction #7  2.5%
Readings:
  Terrorism and Counter Terrorism part 2 / Chapter 7 intro
  Terrorism and Counter Terrorism 7.1
  Violence & Terrorism, article #22

Week 12
  Topic: Counter Terrorism 2 (local)
  • Reaction #8  2.5%
Readings:
  Violence & Terrorism, Unit Ten: articles #36, #37, #38, #39, & #40
  TBA

Week 13
  Topic: Prospects of / Future with Terrorism
  • Reaction #9  2.5%
Readings:
  Violence & Terrorism, various articles #41 & #45
  Violence & Terrorism, Unit Twelve: articles #46, #47 & #48
  New Global Terrorism Ch. 21

Week 14
• Research presentations/discussions 5%

Week 15
  RESEARCH Paper / Projects (4/21)  40.0%
• Research presentations/discussions 5%
• Research presentations/discussions 5%

Weeks 16 & 17
• Research presentations/discussions 5%
  Final exam meeting 5/5?