PART I – Course Information

Course Type
☑ Existing/Restructured
☐ New Course Proposed Fall 2013
If new, have you submitted a Form B to the SHSU Curriculum Committee? ☐ Yes ☐ No

Course Prefix & Number: GEOG 2355

Texas Common Course Number (TCCN Matrix): GEOG 1303

Course Title: World Regional Geography: Europe, Asia, and Australia

Course Catalog Description (Copy and paste from online catalog for existing courses): GEOG 2355 World Regional Geography: Europe, Asia, And Australia.[GEOG 1303] An introductory level course giving a general overview of the land and people. Topics discussed will include the physical environment, cultural characteristics and the various ways people live and make their living. Attention will be focused upon the relationships which exist between location, the physical environment and human activity. Examples of countries covered are Russia, Germany, France, China, Japan, and United Kingdom. Credit 3.

Course Prerequisites: None

Available Online?
☑ Yes, currently developed in online delivery mode
☐ Anticipated development in online delivery mode (Semester, Year: )
☐ No

Number of Sections to be Offered per Academic Year: 4-6

Estimated Enrollment per Section: 30-40

Course Level (freshman, sophomore): freshman, sophomore

Designated Contact Person (for follow-up communication purposes): Donald Albert

E-Mail Address: geo_dpa@shsu.edu

Phone: 936-294-1453

Approvals

Department Chair: [Signature] 10/17/12

Academic Dean: [Signature] 10/15/12

Page 1 of 10

Submit completed, signed form to Core Curriculum Committee - Box 2478 or Fax 4-1271
Select Component Area: **IV. Language, Philosophy Culture**

In one paragraph, describe how the proposed course will fulfill the core and skill objectives of the component area:

GEOG 2355 fulfills the core by exploring how different ideas (political), values (economic), beliefs (religious), and other aspects of culture affect the human experience. For example, mental maps point out differences in worldviews of disparate populations (SLO1). Food taboos associated with certain belief systems (i.e. Muslims avoid pork and Hindus beef) and geographic factors (soil, climate, proximity to rivers and seas, etc.) combine to create aesthetic ethnic dishes and distinctive regional cuisines (SLO2). Students learn that ideas, values, and beliefs often spread within and between regions to influence socio-demographics and visually leave an imprint on the cultural landscape (i.e., mosques and minarets) (SLO3 and 4). Students discuss the pros or cons of controversial topics and appreciate that different ideas, values, and belief shape worldview (SLO 5).

**PART III – Course Objectives & Student Learning Outcomes (SLO)**

Insert the applicable course objectives stated as student learning outcomes (e.g., Students completing the course will be able to...) that support the core component area objectives. Please reference the component rubric for additional information on core component area objectives.

**Objective/SLO 1:** Students completing this course will be able to demonstrate the application of spatial thinking skills to understand how location affects the human experience across cultures.

How will the objective be addressed (including strategies and techniques)?
The instructor will address geographic (spatial) literacy using a mapping activity that targets cultural perception. For example, on the first class meeting students diagram and label their mental map of the world from memory. Students then form groups of five and integrate individual maps to synthesize a single composite mental map. The instructor will illustrate that mental maps are subjective and often reflect cultural differences in worldview, for example, U.S. vs. Chinese and U.S. vs. Palestinian (see Fournier, The Journal of General Education, 5(4), 2002 pp. 293-305). The mental map activity will be repeated on or near the last class meeting so pre and post data are available.

Describe how the objective will be assessed: In one scenario, this objective will be assessed by counting the number of geographic features (continents, oceans, countries, and other significant place names) labeled on the pre and post attempts. The difference between the average pre and post scores indicate: 0-5 Unacceptable, 6-10 Marginal, 11-20 Acceptable, > 20 Exceptional.

Submit completed, signed form to Core Curriculum Committee - Box 2478 or Fax 4-1271
Objective/SLO 2: Students completing this course will be able to apply geographic concepts to analyze how the uniqueness and interconnections between cultures and regions affect human experience.

How will the objective be addressed (including strategies and techniques)?
The instructor will address interaction across cultures using a project that requires the collect, analysis, and synthesis information on a cross-cultural phenomenon. For example, recipes from around the world express the uniqueness of the human experience. Regional cuisines begin with ingredients tied to local physical geographic characteristics (climate, soil, maritime versus continental) and evolve over time through interaction (trade, migration, invasions) with other cultures. This project is based on Barbara Fredrich’s “Food and Culture: Using Ethnic Recipes to Demonstrate the Post-Columbia Exchange of Plants and Animals” from the Journal of Geography, 90(1): 11-15. Students select three recipes that reflect the creation of traditional and modern cuisines of Europe (including Russia), East and Southeast Asia, and Oceania. The project attempts to answer the following questions: 1: To what extent does the ethnic recipe include “native” ingredients, that is, plants or animals domesticated within that region? 2. What human (i.e., migration, colonization, religion) and physical geographic influences (i.e., weather and climate, soils, ocean currents) were involved in the evolution of the recipes? Students receive the project handout (see attached) indicating format requirements and access to support readings.

Describe how the objective will be assessed: Projects include a brief presentation with multimedia (oral and/or visual) and report (written). Students are graded using the project instructions as grading rubric, for example: Unacceptable 0-20 points, Marginal 20-25 points, Acceptable 30-35 points, or Exception 36-40 points (see attached project handout).

Objective/SLO 3: Students completing this course will be able see that ideas, values, and beliefs often diffuse from one region to another and can affect socio-demographics.

How will the objective be addressed (including strategies and techniques)?
Short films support this objective with titles such as "Faith and Belief: Five Major World Religions" and "On Location with H.J. deBlij" or other appropriate titles. Students are given a blank matrix to complete while viewing the film (see attachment). The matrix prompts students to extract information, for example, for the "Faith and Belief" film students record information on the founder, origin, diffusion, distribution, belief, and cultural landscape on each religion. A discussion follows using the matrix as a guide.

Describe how the objective will be assessed: This objective is assessed via examination and graded using a scoring rubric such as: 35-31 Exceeds, 25-30 Meet, < 25 Below Expectations (see attached rubric).

Objective/SLO 4: Students completing this course will be able visualize different places and regions by interpreting the influence of culture on landscapes.

How will the objective be addressed (including strategies and techniques)?
Students will watch one short film per region from The Power of Place video series or similar film series designed for world regional geography courses. Each film illustrates key geographic themes while fostering an aesthetic appreciation of different peoples and their cultural landscapes. Watching films allows student to see people and landscapes and gives students a way other than reading or listening to capture information.
Describe how the objective will be assessed: Students will take a multiple-choice and true/false quiz while viewing the film. The instructor then provides the correct answers so students can score their quiz. The quiz is used as a springboard to more fully discuss the contents of the film. See a sample quiz that supports The Power of Place Video series - each quiz contains questions on two short films (10 minute each).
Objective/SLO 5: Students completing this course will be able to debate how differences in ideas, values, and beliefs can influence how cultures interact with each other.

How will the objective be addressed (including strategies and techniques)?
Each debate includes one group that expresses ideas for and another against a particular issue (ethnic cleansing, immigration policy, internal and external conflicts). The instructor acts as the moderator. Students must end all statements, pro or con, with a supporting reference (newspaper, magazine, book, website, etc.). Each student must also turn in a paper, including citations, which integrates oral arguments from the debate. Detailed debate procedures will be adapted from Lawrence Estaville's "Debate: A Teaching Strategy for Geography" which appeared in the Journal of Geography 87(1), 1-4. If class size, time constraints, or other contingencies occur the instructor can form online discussion groups or embed discussions within scheduled examinations.

Describe how the objective will be assessed: This debate will be graded using a score card designed after Estaville. It includes five criteria and points awarded: position paper and sources 0-15, command of significant information 0-10, logic of arguments 0-10, coherence of rebuttal 0-10, and participation and enthusiasm 0-5.

PART IV – THECB Skill Objectives

Address each of the THECB skill objectives required within the component area. Explain how the skill is addressed, including specific strategies to address the skill(s). Address ALL skill objectives associated with the selected Component Area. (See Appendix)

1. Critical Thinking Skills: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

How will the skill be addressed (including specific strategies, activities, and techniques)? Objective 1 involves students diagraming, comparing, and synthesizing their individual mental maps to create a composite mental. Their individual and composite mental maps provide basis to illustrate geographic illiteracy (i.e., comparing their individual and composite mental maps against an atlas) and worldview of others (i.e., U.S. versus Chinese or U.S. versus Palestinian).

2. Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication

How will the skill be addressed (including specific strategies, activities, and techniques)? There are at least four course objectives that provide students the opportunity to develop, interpret, and express ideas through written (Objective 2, Objective 5), oral (Objective 2, Objective 5) and visual (Objective 2, see also Objective 1 in Critical Thinking Skills) communications.

3. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
How will the skill be addressed (including specific strategies, activities, and techniques)?
N/A

4. **Teamwork**: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

How will the skill be addressed (including specific strategies, activities, and techniques)?
N/A
5. **Personal Responsibility**: to include the ability to connect choices, actions and consequences to ethical decision-making

How will the skill be addressed (including specific strategies, activities, and techniques)? Personal responsibility is addressed by Objective 5. Objective 5 is a debate that requires a source for all oral and written statements. Students are placed into groups (regardless of personal opinions) for or against controversial issues some with significant ethical dimensions (i.e., one-child policy) to argue and rebut. In doing so the students glean the various perspectives are held by different camps. If class size, time contracts, or other contingencies occur the instructor can form online discussion groups or embed discussions within scheduled examinations.

6. **Social Responsibility**: to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

How will the skill be addressed (including specific strategies, activities, and techniques)? Much of the criteria are embedded in Objective 3 (short films on world religions) which explores the basic concepts and spatial distribution of topics traditionally covered in world regional geography (just one is mentioned here - see Objective 3). For example, the course provides a review of five major world religions plus eastern philosophies and animism. This does much to address cultural ignorance pertaining to non-Christian religions and therefore helps address intercultural incompetence.

**PART V – SHSU Core Curriculum Committee Requirements**

1. Using a 15-week class schedule, identify the topics to be covered during each week of the semester. Provide sufficient detail to allow readers to understand the scope and sequence of topics covered.

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Geography: Definition, Illiteracy, and National Geography Standards</th>
</tr>
</thead>
</table>
| Week 2 | Geographic Concepts 1   
latitude, longitude, parallels, meridians, great circle route, International Date Line, distance, direction, location, scale, projections, map types, GIS |
| Week 3 | Geographic Concepts 2   
culture (heaths and diffusion); demographics (population density vs. total population boundaries); political (boundaries, state shapes, state vs. nation, requirements for state recognition, reunification of partitioned nation-states, capitals choke points), urban (global cities, primate vs. rank size rule distributions); economic (core-periphery, developed vs. developing). |
| Week 4 | Geographic Models:   
Physical: plate tectonics and continental drift, global wind patterns, orographic effect, precipitation processes (fronts, convectional, cyclonic), ocean current (warm vs. cold), distribution of world climates, greenhouse effect, global warming, and rising sea level   
Human: total population, birth and death rate, natural increase rate, population growth trends, population pyramids, Malthusian, Marxist and Neo-Malthusian Theories, demographic transition |
<table>
<thead>
<tr>
<th>Week 5</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical: glaciation, irregular shape, northerly location, temperate climate, physiographic regions, climatic regions (special focus on Mediterranean climate and significance of the olive); Human: population distribution, urban clusters, declining fertility rates, aging population, and Muslim immigration, international organizations (EU, NATO, and defunct Warsaw Pact)</td>
</tr>
<tr>
<td>Week 6</td>
<td>Russia and the Near Abroad</td>
</tr>
<tr>
<td></td>
<td>Collapse of the Soviet Union and demographic, economic, and political consequences</td>
</tr>
<tr>
<td>Week 7</td>
<td>Monsoon Asia</td>
</tr>
<tr>
<td></td>
<td>monsoons, rice ecosystems, colonialism, and world religions (Christian, Judaism, Hindu, Buddhism, and Islam)</td>
</tr>
<tr>
<td>Week 8</td>
<td>Southeast Asia - Mainland</td>
</tr>
<tr>
<td></td>
<td>Mekong River and Tonle Sap, Khmer Empire, Communists, Cambodia Genocide (Pol Pot and Khmer Rouge), economic patterns, The Golden Triangle (opium cultivation, refinement, and distribution)</td>
</tr>
<tr>
<td>Week 9</td>
<td>Southeast Asia - Islands</td>
</tr>
<tr>
<td></td>
<td>Indonesia (transmigration), Philippines (remittances), Singapore (population density), Bali (rice terraces and tourism)</td>
</tr>
<tr>
<td>Week 10</td>
<td>China</td>
</tr>
<tr>
<td></td>
<td>The Silk Road, physical geography (significance of major rivers), comparative analysis of US and China's climatic regions, Three Gorges Dam</td>
</tr>
<tr>
<td>Week 11</td>
<td>China</td>
</tr>
<tr>
<td></td>
<td>total population, population distribution, Great Leap Forward, declining growth rate, ethnic composition and distribution (i.e., Hui a Muslim ethnic minority), one-child policy including unintended consequences (sex ratio imbalance, army of bachelors, and declining pool of potential wives)</td>
</tr>
<tr>
<td>Week 12</td>
<td>Japan and the Koreas</td>
</tr>
<tr>
<td></td>
<td>Seismic threats (earthquake, volcanic eruptions, tsunamis) juxtaposed with high urban population densities, declining fertility, ageing population, projected population decline, immigration scenarios</td>
</tr>
<tr>
<td>Week 13</td>
<td>Oceania</td>
</tr>
<tr>
<td></td>
<td>Micronesia, Melanesia, Polynesia, high/volcanoes vs. low islands (atolls), origin and phases of migration pattern across Oceania (planned and accidental), Kava Kava</td>
</tr>
<tr>
<td>Week 14</td>
<td>Oceania Case Studies</td>
</tr>
<tr>
<td></td>
<td>Guam (economic), Bikini Atoll (population relocation and nuclear testing), Nauru (environmental degradation), Fiji (political unrest and ethnic distribution), Easter Island (population collapse), Pitcairn (Mutiny on the Bounty)</td>
</tr>
<tr>
<td>Week 15</td>
<td>Australia and New Zealand</td>
</tr>
<tr>
<td></td>
<td>physiographic regions, typhoons, climatic regions, natural resources, original inhabitants and immigrant streams from 1500 to present (aboriginals, penal colony, gold rush, European, Asians), changing demographics and multiculturalism</td>
</tr>
</tbody>
</table>

2. Attachments (Syllabus Required)

Syllabus Attached?  ☑ Yes  ☐ No
Other Attached?  ☑ Yes  ☐ No  If yes, specify: articles referenced in application and grading rubrics
Appendix: THECB Component Area Descriptions and Skill Requirements

I. Communication (Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written, and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.)

II. Mathematics (Courses in this category focus on quantitative literacy in logic, patterns, and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.)

III. Life and Physical Sciences (Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.)

IV. Language, Philosophy, and Culture (Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.)

V. Creative Arts (Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.)

VI. American History (Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.)

VII. Government/Political Science (Courses in this category focus on consideration of the Constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.)

VIII. Social and Behavioral Sciences (Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals, groups, institutions, and events, examining their impact on the individual, society, and culture.)

<table>
<thead>
<tr>
<th>Required Skill Objectives</th>
<th>Critical Thinking</th>
<th>Communication</th>
<th>Empirical &amp; Quantitative</th>
<th>Team Work</th>
<th>Social Responsibility</th>
<th>Personal Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life and Physical Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language, Philosophy</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&amp; Culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creative Arts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American History</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government/Political</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social and Behavioral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sciences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Page 10 of 10
Submit completed, signed form to Core Curriculum Committee - Box 2478 or Fax 4-1271
1a. COURSE SYLLABUS (SAMPLE FOR REVISED CORE)

1b. GEOG 2355
1c. World Regional Geography-Europe, Asia, Australia
1d. 3 Credit Hours
1e. Semester ___

2. Class Meeting Room: LDB 220
3. Class Time: Monday, Wednesday, Friday 10:00 PM to 10:50 PM
4. Instructor Name: Donald Albert
5. Office Location 326 LDB
6. Instructor Contact Information
   Phone: 936-294-1453
   E-mail: geo_cpa@shsu.edu

7. Office Hours
   M,W,F 8-9 and 11-12, and other times by appointment

8. Course Description
   This is an introductory level course giving a general overview of the land and people. Topics discussed will include the physical environment, cultural characteristics and the various ways people live and make their living. Attention will be focused upon the relationships which exist between location, the physical environment and human activity. Examples of countries covered are the former Soviet Union, Germany, France, China, Japan, and United Kingdom. No prerequisites; lecture method of instruction supplemented with videos, current events, short activities, four exams; and textbook readings.

9. Course Objectives
   Students completing this course will be able to demonstrate the application of spatial thinking skills to understand how location affects the human experience across cultures.

   Students completing this course will be able to apply geographic concepts to analyze how the uniqueness and interconnections between cultures and regions affect human experience.

   Students completing this course will be able see that ideas, values, and beliefs often diffuse from one region to another and can affect socio-demographics.

   Students completing this course will be able visualize different places and regions by interpreting the influence of culture on landscapes.

   Students completing this course will be able to debate how differences in ideas, values, and beliefs can influence how cultures interact with each other.

10. Required Textbook(s) and/or References:

11. Optional texts, References or Supplies: Test scores and other materials may be posted on Blackboard http://blackboard.shsu.edu/

12. Attendance Policy – This course abides by University Policy and Regulations (APS 800401). Accordingly, “regular and punctual attendance is expected of each student at Sam Houston State University.” For each absence in excess of SIX, for whatever reason, 10 points will be deducted from the course grade. Attendance is necessary to do well in the course and is REQUIRED. Each tardy in excess of THREE will result in 10 points being deducted from your total grade. Coming into class more than 10 minutes late will be counted as an absence. If you leave early or leave class, without having cleared this with the instructor, you will be counted absent. Also students that sleep, read the newspaper or other nonrelated material, and that are otherwise inattentive, disruptive (i.e., talking
during lectures) in class will be counted as absent or may be asked to leave class. Only under extreme circumstances and with appropriate documentation will the instructor consider excusing an absence.

13. Exams -- Four examinations will be given with each counting 25% towards the final course grade. Make-up exams are strongly discouraged. Make every attempt to take exams on the scheduled dates. All make-up exams will be given sometime towards the end of the semester at a time set by the instructor. Be prepared to provide documentation supporting your absence if asked for by the instructors. Appropriate documentation WILL be required before a student is allowed to take a make-up.

14. Grading Plan -- The grading scale is as follows:

\[<59.9\%=P; \quad 60-69.9\%=D; \quad 70-79.9\%=C; \quad 80-89.9\%=B; \quad 90-100\%=A.\]

Test scores will be posted on Blackboard. No extra credit is available.

15. Academic Dishonesty:
All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of academic dishonesty including, but not limited to, cheating on examinations or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

16. Classroom Rules of Conduct: Students are expected assist in maintaining a classroom environment that is conducive to learning. Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Turn off cell phones, i-Pods, pagers, etc. and put away earphones before class. Inform me of emergency exceptions. If there is a special reason to use a laptop, please let me know in advance so that we can discuss this. Otherwise, leave them at home or place them closed under your desk when you come in.

Students are prohibited from eating or drinking in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any other form of distraction. Students who are consistently late or absent, performing poorly, or disruptive also may be reported to SHSU's First Alert [http://www.shsu.edu/~sam_www/firstalert.html] and or to the Dean of Students [http://www.shsu.edu/~slo_www/staff.html] for disciplinary action in accordance with university policy. Inappropriate behavior in the classroom shall result in a directive to leave class. For information on the Code of Student Conduct go to this site [http://www.shsu.edu/students/StudentGuidelines2007_2008.pdf]

1) Come to class on time—there is no reason to be late to class on a frequent basis. Habitual tardiness is unacceptable.
2) Remain in class until it finished. Leaving early will count as an absence unless you have cleared it with me or unless it is an emergency.
3) Again, do not bring food or drink into the class
4) You cannot leave the class during an exam unless there is a medical emergency. If you think you will need a Kleenex during the test then bring some to class.
5) Hats must be removed and put away during exams.
6) During tests, cell phones and any other equipment capable of receiving, recording and/or transmitting information, must be put away in a book bag or purse.

17. Visitors in the Classroom: Unannounced visitors to the classroom must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.
18. Americans with Disabilities Act: It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request assistance with academically related problems stemming from individual disabilities by contacting the Director of the Counseling Center in the Lee Drain Annex or by calling (936) 294-1720. Any student seeking accommodations should go to the Counseling Center and Services for Students with Disabilities in a timely manner and complete a form that will grant permission to receive special accommodations.

19. Religious Holidays: Students that are absent from class for the observance of a religious holy day are allowed to take an examination or complete an assignment scheduled for that day within reasonable time after the absence. The period of time during which assignments and exams will be excused includes travel time associated with the observance of the religious holy day. A student who wishes to be excused for a religious holy day must present the instructor of each scheduled class that he/she will be absent from class for religious reasons with a written statement concerning the holy day(s) and the travel involved. The instructor should provide the student with a written description of the deadline for the completion of missed exams or assignments. In such cases, the student will be required to take the test or submit the assignment early—unless there are good reasons for not being able to do so and the instructor has agreed to those reasons.

20. USE OF TELEPHONES AND TEXT MESSAGERS IN ACADEMIC CLASSROOMS AND FACILITIES

Telephones and similar devices have become increasingly a part of everyday life. In the academic classroom, however, during class these devices can be a serious distraction and during tests they can be a serious problem. The technology is constantly changing and evolving. So, the present policy does not specify particular devices or device types. Rather, the policy applies to any device that performs the function of a telephone or text messenger.

1.0 Each course syllabus must contain a policy statement as to the disposition of telephones and text messengers (1) in the classroom, (2) during testing periods, and (3) for emergency considerations.

2.0 The use by students of electronic devices that perform the function of a telephone or text messenger during class-time may be prohibited if deemed disruptive by the instructor to the conduct of the class. Arrangements for handling potential emergency situations may be granted at the discretion of the instructor. Failure to comply with the instructor’s policy could result in expulsion from the classroom or with multiple offenses, failure of the course.

3.0 Any use of a telephone or text messenger or any device that performs these functions during a test period is prohibited. These devices should not be present during a test or should be stored securely in such a way that they cannot be seen or used by the student. Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty (see student code of conduct http://www.shsu.edu/studentguide/StudentGuidelines2010-2012.pdf#page=29).

21. Study Tips

21a. Always come to class. You will probably not do well in the course if you skip class.

21b. Take good notes: This gives you a basis for doing well in the course.

21c. For those students who want to do well in college, reading their textbooks is a necessity. So, read the chapters in the book at the time they are being covered in lecture and highlight the key concepts. Highlighting as you read helps you to stay focused on the material and helps you to actively process the information. In addition, it requires you to read the key points twice, and it also enables you to easily review for tests because you can simply reread the highlighted material rather than an entire chapter.
21d. Review the notes from the previous lecture at least once a week. This should greatly enhance your understanding of the material because it enables you to see the continuity and structure of the material. You also learn the material in small amounts, which is much easier to do than trying to learn it all at once just before the exam.

21e. When it comes time to review for an exam, first read the highlighted portions of the text, and then concentrate on your notes. You might also want to follow the procedures below:

1. The first time you review your notes, concentrate on absorbing the key ideas and understanding the organization of the material - why certain ideas followed others in the class and how they are related.
2. Pretend that you are teaching the material to someone else. If you can present an imaginary lecture in an organized, comprehensive manner, then you understand it. If you cannot, then you need to review some more.

21. Course Outline. (Other readings may also be assigned.)

Week 1

Geography: Definition, Illiteracy, and National Geography Standards

Week 2

Geographic Concepts 1
latitude, longitude, parallels, meridians, great circle route, International Date Line, distance, direction, location, scale, projections, map types, GIS

Week 3

Geographic Concepts 2
culture (hearth and diffusion); demographics (population density vs. total population boundaries); political (boundaries, state shapes, state vs. nation, requirements for state recognition, reunification of partitioned nation-states, capitals choke points), urban (global cities, primate vs. rank size rule distributions; economic (core-periphery, developed vs. developing).

Week 4

Geographic Models:

Physical: plate tectonics and continental drift, global wind patterns, orographic effect, precipitation processes (fronts, convectional, cyclonic), ocean current (warm vs. cold), distribution of world climates, greenhouse effect, global warming, and rising sea level

Human: total population, birth and death rate, natural increase rate, population growth trends, population pyramids, Malthusian, Marxist and Neo-Malthusian Theories,
demographic transition model (developed and developing versions), epidemiological transition, migrations terminology and theories, and transportation and development.

Week 5

Europe

Physical: glaciation, irregular shape, northerly location, temperate climate, physiographic regions, climatic regions (special focus on Mediterranean climate and significance of the olive);
Human: population distribution, urban clusters, declining fertility rates, aging population, and Muslim immigration, international organizations (EU, NATO, and defunct Warsaw Pact)

Week 6

Russia and the Near Abroad
Collapse of the Soviet Union and demographic, economic, and political consequences

Week 7

Monsoon Asia
monsoons, rice ecosystems, colonialism, and world religions (Christian, Judaism, Hindu, Buddhism, and Islam)

Week 8

Southeast Asia - Mainland
Mekong River and Tonle Sap, Khmer Empire, Communists, Cambodia Genocide (Pol Pot and Khmer Rouge), economic patterns, The Golden Triangle (opium cultivation, refinement, and distribution)

Week 9

Southeast Asia - Islands
Indonesia (transmigration), Philippines (remittances), Singapore (population density), Bali (rice terraces and tourism)

Week 10

China
The Silk Road, physical geography (significance of major rivers), comparative analysis of US and China's climatic regions, Three Gorges Dam

Week 11
China
total population, population distribution, Great Leap Forward, declining growth rate, ethnic composition and distribution (i.e., Hui a Muslim ethnic minority), one-child policy including unintended consequences (sex ratio imbalance, army of bachelors, and declining pool of potential wives)

Week 12

Japan and the Koreas
Seismic threats (earthquake, volcanic eruptions, and tsunamis) juxtaposed with high urban population densities, declining fertility, ageing population, projected population decline, immigration scenarios

Week 13

Oceania
Micronesia, Melanesia, Polynesia, high (volcanoes) vs. low islands (atolls), origin and phases of migration pattern across Oceania (planned and accidental), Kava Kava

Week 14

Oceania Case Studies
Guam (economic), Bikini Atoll (population relocation and nuclear testing), Nauru (environmental degradation), Fiji (political unrest and ethnic distribution), Easter Island (population collapse), Pitcairn (Mutiny on the Bounty)

Week 15

Australia and New Zealand
physiographic regions, typhoons, climatic regions, natural resources original inhabitants and immigrant streams from 1500 to present (aboriginals, penal colony, gold rush, European, Asians), changing demographics and multiculturalism

The instructor reserves the right to deviate from the syllabus to accommodate unforeseen and unusual circumstances.
GRADING RUBRICS AND OTHER MATERIALS DESIGNED TO ASSESS OBJECTIVES AND SKILLS

OBJECTIVE/SLO1 & CRITICAL THINKING SKILLS

This objective will be assessed by counting the number of geographic features (continents, oceans, countries, and other significant place names) labeled on the pre and post attempts. The difference between the average pre and post scores indicate:

0-5 Unacceptable, 6-10 Marginal, 11-20 Acceptable, > 20 Exceptional.

OBJECTIVE/SLO2 & COMMUNICATION SKILLS

Project Instructions: Food and Culture (Point Value = 40)

1. Read Barbara Fredrich’s “Food and Culture: Using Ethnic Recipes to Demonstrate the Post-Columbia Exchange of Plants and Animals” from the Journal of Geography, 90(1): 11-15. This article will serve as a template (example) for the final project (see also additional readings from Shulman and Thurbron for additional guidance).

2. Select three recipes, one from each of the following regions that reflect the traditional or modern cuisine of A) Latin America, B) North Africa and the Middle East, and C) South Asia.

3. Include a COVER PAGE: i) name, ii) course number/section, iii) and date

4. With each recipe include:
   a. First Page
      i. Name of recipe
      ii. Title of Book, Magazine, Website, etc.
      iii. Author: _______________ Page: ___________ Year: ___________
      iv. List of ingredients
      v. Directions (paragraph form)

      Note: items a.iv and a.v can be copied directly from source

   b. Second Page
      i. Picture of dish (reference source of picture here and in the Bibliography)

   c. Third Page
      i. Name of recipe
      ii. Left column – list of ingredients (can use bullets but NOT numbers)

      iii. Right column – Origin
          1. Use Table 1 and 2 from Fredrich’s article and OTHER sources to identify the origin or source of each ingredient. Use In-Text Citations (APA Style- follow link to style sheet) for all sources used to indicate the origin of ingredients. You should use at least THREE sources.
iv. Write a single-spaced paragraph (between 6-8 sentences) answering these two questions:
   1. To what extent does the ethnic receipt include “native”
      ingredients, that is, plants or animals domesticated within that
      region?
   2. What human (ie, migrations, colonization) and physical
      geographic terms (key terms), concepts and themes (ie, weather
      and climate, soils, ocean currents) were involved in the evolution
      of the recipes? Expand on AT LEAST TWO IDEAS
      (CONCEPTS/THEMES) in each paragraph. THIS IS ORIGINAL
      WORK DO NOT COPY, PLAGARIZED, OR PARAPHRASE TOO
      CLOSERLY. REFERENCE ALL IDEAS AND STATEMENTS.
      INSTRUCTOR RESERVES THE RIGHT TO USE TURNITIN.COM ON
      STUDENT SUBMISSIONS.
   3. Use In-Text Citations to support all claims from items iv. 1-2
      above.

5. Include a Bibliography for all In-Text Citations (Last Page). Use APA style (see
   links for style handout below).

   1 - Print Sources

   2 - Electronic Sources

6. Submit 11 pages NO MORE OR LESS: Cover Page (1 page), Recipes (9 pages
   or 3 pages per recipe), and Bibliography (1 page), save as MS Word format
   and submit via eCollege's dropbox (see instructions below).

7. Grading Rubric: Unacceptable 0-20 points, Marginal 20-25 points,
   Acceptable 30-35 points, or Exception 36-40 points

OBJECTIVE/SLO 3 & SOCIAL RESPONSIBILITY

SEE WORLD RELIGION MATRIX (BLANK & ANSWER KEY/RUBRIC) ON THE
NEXT TWO PAGES
<table>
<thead>
<tr>
<th></th>
<th>Jewish</th>
<th>Christianity</th>
<th>Islam</th>
<th>Hinduism</th>
<th>Buddhism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Founder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Origin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diffusion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Belief</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cultural</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Landscape</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scripture</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jewish</td>
<td>Christianity</td>
<td>Islam</td>
<td>Hinduism</td>
<td>Buddhism</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td><strong>Founder</strong></td>
<td>Hebrews</td>
<td>Jesus Christ</td>
<td>Mohammad</td>
<td>Ancient Ganges</td>
<td>Siddhartha Gautama</td>
</tr>
<tr>
<td><strong>Origin</strong></td>
<td>Babylon, Middle East, Egypt</td>
<td>Bethlehem, Middle, East, Roman Empire, 2000 years ago</td>
<td>Mid East, Mecca, Saudi Arabia</td>
<td>India</td>
<td>2500 years ago North India</td>
</tr>
<tr>
<td><strong>Diffusion</strong></td>
<td>4000 years ago</td>
<td>Relocations, spread all over world, 1 billion</td>
<td>North Africa, Central Asia, 610 AD</td>
<td>Bali</td>
<td>North and South from Ganges</td>
</tr>
<tr>
<td><strong>Current Distribution</strong></td>
<td>17 million Jews, Israel, US, Former Soviet Union</td>
<td>North &amp; South America, West Europe, Oceania, Africa</td>
<td>Arabia, Europe, Africa, Asia, 800 million</td>
<td>India, other parts of Asia, 700 million</td>
<td>China, Korea, Tibet, Japan, 300 million</td>
</tr>
<tr>
<td><strong>Belief</strong></td>
<td>Monotheism, lawfulness, history, God's Plan</td>
<td>Monotheism, New Testaments, Jesus is God's Son</td>
<td>Profess faith, pray 5x/day, alms to poor, fast Ramadan, Pilgrimage-Mecca</td>
<td>Karma, Caste system, reincarnation, polytheistic</td>
<td>Buddha, Middle Way, Nirvana</td>
</tr>
<tr>
<td><strong>Cultural Landscape</strong></td>
<td>Synagogue</td>
<td>Churches, Vatican City, cemeteries, Cathedral, schools, convents</td>
<td>Mosque, minaret in Mecca</td>
<td>Temple</td>
<td>Monasteries, temples, pagoda</td>
</tr>
<tr>
<td><strong>Scripture</strong></td>
<td>Torah</td>
<td>Bible</td>
<td>Koran</td>
<td>Vedas</td>
<td>Sutras</td>
</tr>
</tbody>
</table>
OBJECTIVE/SLO 4

SEE POWER OF PLACE SAMPLE QUIZ ON NEXT TWO PAGES

OBJECTIVE/ SLO 5 & PERSONAL RESPONSIBILITY

Score Card "Rubric" for Structured Debate

(45 total points)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>position paper and sources</td>
<td>0-15</td>
</tr>
<tr>
<td>command of significant information</td>
<td>0-10</td>
</tr>
<tr>
<td>logic of arguments</td>
<td>0-10</td>
</tr>
<tr>
<td>coherence of rebuttal</td>
<td>0-10</td>
</tr>
<tr>
<td>participation and enthusiasm</td>
<td>0-5</td>
</tr>
</tbody>
</table>
TEST YOUR KNOWLEDGE

Multiple Choice and True/False Questions

1. Which three religious groups occupy Jerusalem?
   a. Jews, Christians, Hindus
   b. Moslems, Jews, Buddhists
   c. Jews, Christians, Moslems
   d. Hindus, Jews, Buddhists

2. Which area of Jerusalem is most debated?
   a. West bank
   b. Old City
   c. East bank
   d. Golan Heights

3. Which dam is located on the Nile River?
   a. Aswan High Dam
   b. Hoover Dam
   c. Three Gorges Dam
   d. none of the above

4. Which of the following is the world’s largest man made lake?
   a. Lake Nasser
   b. Lake Victoria
   c. Lake Michigan
   d. Lake Superior

5. Currently, Oman’s largest export is:
   a. natural gas.
   b. coffee.
   c. oil.
   d. cocoa.

6. Which of the following best describes Omanization?
   a. increased employment of Omanis in what are now heavily guestworker sectors
   b. increased employment of guestworkers to help with the lack of labor
   c. hiring only women in public sector jobs
   d. increasing growth of the public sector
7. True/False  Oman’s oil production is much lower than that of neighboring Middle Eastern countries.

8. True/False  Egypt is currently working on building an entirely new delta parallel with the current Nile delta.

9. True/False  Turkey is a secular state.

10. True/False  The city of Jerusalem is predominantly Arab.

Short Answer and Essay Questions

1. Describe the debate over Jerusalem’s Old City?

2. What challenges does Turkey face in joining the EU?

3. What is unique about the spatial location of Turkey?

4. Why is Egypt so dependent on the Nile River?

5. What role do women play in the economic development of Oman?

Map Exercises

1. Using the blank outline map, find the following locations: the Nile, Oman, Israel, Jerusalem, Turkey, Istanbul.
Effective verbal communication in today's society, most specifically in the workplace, is crucial. Classroom debate can stimulate students to think critically about important issues and can strengthen their abilities to express their ideas logically. Outlined here is a teaching strategy that utilizes a debate format to improve students' verbal articulation as well as their writing skills, two essential ingredients for successful careers in geography.

**EVOLUTION OF A TEACHING TECHNIQUE**

Several years ago in an introductory cultural geography course, I began to search for a way to replace a lecture on environmental and cultural determinism with one that could better involve students in thinking about the concepts of this classic human-land debate. I came to the conclusion that perhaps my class, given a few seeds for developing arguments, could effectively debate these complex issues. To my surprise, not only did the students intelligently analyze several basic arguments, but they introduced their own innovative lines of thought. Moreover, they called for more time to debate; they had more ideas; they wanted more analysis; they had more rebuttals. In short, through the interaction of debate my students became excited intellectually, and I became excited by the teaching technique.

Later I incorporated a more structured debate procedure into my economic geography course. Students were graded on their debate performances and on their sources of information. In a subsequent geographical concepts course, individual position papers that refined student arguments were required. And in the course, Geography of the South, socially provocative questions were formulated that placed academic argument within more well-defined ideological frameworks.

**DEBATE TOPICS**

The essential factor in any debate is the question to be argued. Beyond being course-related, debate topics must be controversial and should be as timely and geographically specific as possible. Each debate question should be very carefully worded so that there will be no confusion concerning its meaning. Indeed, the opening minutes of every debate should focus on the meaning of the question and the definition of terms. Although sources of information for each question should be suggested, no specifically salient points about the topic should be provided. This forces the students to sort out for themselves the significant issues for each question, and, then, the importance of these issues also can be debated. Topics I have used include the following.

1. **Cultural Geography**: environmental determinism versus cultural determinism; geographic factors of infant mortality.

2. **Economic Geography**: Indian resource rights in Wisconsin; the impact of textile imports on the South Carolina economy.

3. **World Regional Geography**: Mexican illegal immigration into the US; a Palestinian homeland.

4. **Geographical Concepts**: spatial patterns as the essence of geographic methodology; all geography as historical geography.

5. **Geography of the South**: the socioeconomic effects of racism in the South in the 1980s; the impact of religious fundamentalism on the image of a progressive South.

To motivate students to become more personally involved,
Table 1. Debate Critique.

<table>
<thead>
<tr>
<th>Grading Criteria</th>
<th>Points Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position paper and sources</td>
<td>15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0</td>
</tr>
<tr>
<td>Command of significant information</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
</tr>
<tr>
<td>Logic of arguments</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
</tr>
<tr>
<td>Coherence of rebuttals</td>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
</tr>
<tr>
<td>Participation and enthusiasm</td>
<td>5 4 3 2 1 0</td>
</tr>
<tr>
<td>Total points possible: 50</td>
<td>Total points earned:</td>
</tr>
</tbody>
</table>

on the first day of class and before they know about the debate requirement, students respond to a survey that contains possible debate questions. From the survey tallies, the final debate questions and student teams are selected. The survey results usually show that almost everyone agrees about some issues, and therefore these questions are discarded. Those controversial topics that evoke a distinct dichotomy of responses become the final debate questions. Students who select neutral responses to these questions are assigned to one side or the other to balance team sizes.

DEBATE PROCEDURES
To focus student arguments and to sharpen research and writing skills, a position paper (two to four typewritten pages with an acceptable bibliography) is required before each debate. In the debate itself, the teams are aligned in two rows facing each other for maximum eye contact. No rules of debate are followed in order to relax the participants and to gain an unbroken flow of discussion. In other words, after the team that supports the question reads it, a cycle of arguments and rebuttals ensues. Each statement, however, must be supported by a short citation of the source material giving the author and date, e.g. Smith, 1987. Although at first this requirement appears cumbersome, it is, in fact, not time consuming and does not interrupt the flow of debate. The goal, of course, is to eliminate as many inaccurate assertions as possible while encouraging thoughtful analysis corroborated by professional sources that may include, for example, geographic journals, government reports, and interviews with experts both on or off campus.

One of the keys to a successful classroom debate is the instructor who acts as recorder, moderator, timekeeper, analyst, and catalyst. To facilitate in-class follow-up and after-class grade assignment, the instructor should record every significant statement made by each student. This takes some practice because it demands concentration and listening skills as well as a quick writing hand. As the debate becomes more vociferous, and normally it does as the students become more involved with the exercise, the instructor must moderate. The moderator, without inhibiting an atmosphere of spontaneous interaction, allows only one student at a time to speak and must occasionally direct the discussion away from a dominant individual toward a more passive one. Thus the moderator maintains order while encouraging everyone to participate.

A debate session, which may vary from fifty to seventy-five minutes, should have a “half-time” break of about three minutes and a final “two-minute warning,” which is invariably ignored as students frantically run overtime to make their concluding arguments. The “half-time” break allows the instructor to play the role of analyst and catalyst. As analyst, the instructor restates the major ideas that have been made, adds a few analytical comments to underscore important teaching points, and ensures that the remainder of the debate is properly focused. As catalyst, the instructor suggests neglected issues in order to reach maximum coverage of the topic. Additional analytical comments and teaching points are offered at the conclusion of the debate. Furthermore, in the next class period, students are encouraged to give brief follow-up comments and to ask related questions. Debates, then, should be carefully designed into a course as points of departure for an in-depth presentation by the instructor and continued class discussion.

DEBATE EVALUATION
If students properly prepare for the debates, the time and effort expended will be considerable. Therefore, debates should be weighted accordingly within the overall course grading scheme. Examination questions can also be drawn from debate sessions. The debate scoring instrument I have devised is purposefully simple (Table 1). Only five weighted criteria are considered: 1) quality of the position paper and source material, 2) command of significant information, 3) logic of arguments, 4) coherence of rebuttals, and 5) participation and enthusiasm. Grade assignment should take place immediately
after the debate session while its intensity is fresh, and grades should be based on the instructor’s written record of the debate. Although grouped into debate teams, students are graded on their individual performances. A team victory, therefore, plays no role in individual grade assignment. Moreover, a preliminary practice debate may be used to make students more comfortable with the graded ones. The practice debate also can help the instructor explain his or her expectations more fully.

VARIATIONS, CAVEATS, AND CONCLUSIONS

The debate procedure described here allows for variations. Some of these might depend upon instructor personality and teaching philosophy, and others might be created by course requirements, class size, and time. For example, visitors often come to listen to my class debates. During the “half-time” and at the end of the debate, if time permits, the audience is allowed to comment briefly about the quality and content of argument, and this provides another source of information and criticism.

Course requirements may dictate the number of debates that can be scheduled during a semester, but experience suggests that the minimum should be no less than three, including a practice session, and that the maximum should not exceed five. Too few debates defeat the purpose of improving critical thinking and verbal skills, while too many debates place a very large burden on the students.

Class size and time also can constrain the debate technique. The number of students on each team becomes a delicate matter. The risk that a lack of participation will occur increases with smaller team size and increases the possibility that the entire debate will fall flat on its face. On the other hand, large teams create the problem that each member may not get the opportunity to state his or her views. Team size also must be adjusted to the length of the class. Five to seven people per team might be optimal for a fifty-minute class, while teams of eight to ten persons can usually express themselves fully in seventy-five minutes. An economic geography class of sixty-two students was the largest group for which I have employed the debate technique. In this case, three debates were required of each student, and nine separate questions were debated for one hour each by teams comprised of approximately ten students. The non-debating students became a part of the audience and provided comments and criticisms at “halftime” and at the end of each debate. Although using nine of forty-five class periods for debate may seem a bit extravagant, the teaching rewards made the effort more than worthwhile. Indeed, in every one of my classes that have engaged in debate, the students have indicated in their teaching evaluations that the debates were the highlight of the course.

For classroom debate to accomplish its goals of improving student verbal skills and critical thinking, the instructor must be assertive, yet remain neutral about the issues until each debate is concluded. Furthermore, the instructor must not only urge students to participate, but he or she must stimulate their thinking. If a teacher can make a commitment to unravel such pedagogical intricacies, then classroom debate can be an exciting and very satisfying strategy for teaching geography.

FURTHER READING

WORLD REGIONAL GEOGRAPHY AND PROBLEM-BASED LEARNING: USING COLLABORATIVE LEARNING GROUPS IN AN INTRODUCTORY-LEVEL WORLD GEOGRAPHY COURSE

Eric J. Fournier

Introduction

World Regional Geography was one of several classes developed during the pilot phase of Samford University's Problem-Based Learning initiative. The decision to adopt this geography class was based on a broad trend towards active learning in undergraduate institutions as well as more specific trends within the discipline of geography (Bonwell & Sutherland, 1996). Today's students need to be better prepared to solve spatially related problems in a shrinking world community. To accomplish this, geography needs to be transformed from a declarative enterprise based on facts to a problem-based enterprise (Golledge, 2001). In addition students are expected to leave college with more clearly defined transferable skills (Chalkley & Harwood, 1998). Finally students should be exposed to the vast array of print and electronic resources available as well, and they should develop evaluative skills in assessing the validity and appropriateness of those resources (Healey, 1998). The transformation of this general education class addresses all three of these concerns.

Problem-Based Learning (PBL) and Transferable Skills

Despite the relative paucity of published evidence, there is clearly a consensus that problem-solving abilities are a crucial skill that students need to develop. Clark and Higgitt (1997) suggest,
The key issue for courses which aim to prepare graduates for the 21st century is how to use that education to instill the key intellectual qualities for next century’s career patterns. The key qualities include general intellectual skills such as problem solving, identifying the core of a problem, the ability to transfer knowledge and skills to new situations and to learn new complex subjects, and making judgments on the evidence available. (p. 11)

The link between the development of problem-solving abilities and future career opportunities is made explicit through what are termed transferable skills. Students are expected to work together in groups. Group work is an essential part of the work world. Students must learn to rely on their classmates, much as they will rely on their co-workers in the future. Group organization helps facilitate communication skills, develops interpersonal skills, and helps prepare students for the future. This is one of several transferable skills that can be developed via PBL. Healey (1992) explored the use of groups to encourage the incorporation of such skills into the curriculum. Several others have written about the use of groups for a variety of classes (Burkill, 1997; Stainer, 1997; Crewe, 1994). The development of these skills, which include time management, joint decision-making, group work, task allocation, and self-assessment, was introduced by Magee (1995) in a problem-based exercise to explore university library resources. Many of these skills can be easily applied to the needs of the workforce. Chalkley and Harwood (1998, p. 1) noted “that no degree curriculum would be considered complete without some reference to the role of skills and employability.”

Employers are often disappointed with the ability of new recruits to communicate their ideas clearly, work in teams, solve problems, and use their initiative. In the United States there are concerns that large numbers of graduates lack basic skills in problem solving (Johnson Foundation, 1994). Birnie and O’Conner (1998) suggest the use of practical exercises and laboratory work to develop these abilities. Common aims of practical work include the development of skills such as working in teams and problem solving. In addition, they note that such an approach can enthuse
students with the subject and bridge the gap between theory and practice. Finally PBL may be considered a form of active pedagogy as described by Moser and Hansen (1996):

> Active pedagogy...is a student-centered approach: it involves students actively in their own learning, assures their involvement with the material (i.e., their world), teaches skills for problem-solving rather than instilling information for occasional regurgitation, and prepares students to be engaged citizens and competent participants in society. (p.2)

The Regional Approach to World Geography

Geographers have long used a regional approach as a means of introducing students to the world. Just as biologists have developed a complex taxonomy to help explain the natural world, and historians break the continuum of time into eras and ages, geographers try to make sense of the world by subdividing it into smaller more manageable units. The hierarchical framework developed by geographers divides the world into spatial units. The largest of those spatial units is called a realm. Criteria for establishing realms include both physical and human characteristics of the earth’s surface. For example South America is a realm. It is a continent dominated by a distinct set of cultural norms. The vast Asian landmass is sub-divided into five realms: Russia, Southwest Asia, South Asia, East Asia, and Southeast Asia. While each of these realms is part of the same landmass, each is culturally distinct. Distinctions between realms are somewhat arbitrary and subject to different interpretations, but a current text divides the world into 12 realms: Europe, Russia, North America, Middle America, South America, North Africa/Southwest Asia, Sub-Saharan Africa, South Asia, East Asia, South East Asia, Australia and New Zealand, and Pacific Realm (de Blij & Muller, 2000).

In addition, each of the world’s realms can be sub-divided into an infinite number of smaller units called regions. For example, the North American Realm might be divided into the familiar regions of The South, The Midwest, New England, The
Middle Atlantic States, and so forth. Other regions might include the Piedmont, The Coastal Plain, and Appalachia. Regions may be based on physical characteristics, cultural characteristics, or a combination of both. While I use this spatial framework as an organizational structure for the study of world geography, I also identify broad, global themes that transcend realms and regions. I emphasize the following themes: cultural and economic globalization, ethnic conflict, clash of the global and the local, rich versus poor, urbanization, the role of women, and environmental issues. These themes are introduced in the first week of class and serve as a kind of glue to hold the regional framework together. Students are continually reminded to look for connections between places rather than viewing places in isolation. The concept of relative location is useful for introducing the interdependence of places. Too often students view the concept of absolute location, knowing where things are, as the end product of geography. By taking this class, they learn that knowing absolute location is only the first step towards geographic understanding. The goal of GEOG 101 is not just teaching students where things are, but getting them to think about the why behind the where, or the factors that account for the patterns that they can see in the world.

Place in the Curriculum

GEOG 101 is an introductory-level geography class organized by world regions. The course is required for geography majors, for education majors, and also fulfills the social science general education requirement for the College of Arts and Sciences. The course is a recommended elective for World Languages and Cultures majors. Typically five or six sections of GEOG 101 are offered each year with an average total annual enrollment of approximately 120. Typically students in GEOG 101 are freshmen and sophomores, but students at any grade level can, and do, enroll in the class. A class of 20 would ordinarily have approximately 15 lower classmen and 5 upper classmen.

Most students who enroll in GEOG 101 have very little background in geography prior to the class. For many students this is
the first and only geography class they will ever take. Many come to the class expecting to be drilled in place name geography and to be flooded with facts. Students are often surprised to find that there is much more to geography than simply knowing where things are. Many of the students are future teachers who are trying to develop a base of knowledge that they can eventually take into their own classrooms. Others take the class because of curiosity about the world and because they feel that a lack of geography in K-12 has left a gap in their knowledge. Student experience with the world varies tremendously. Some students have traveled widely to exotic parts of the world. Others have traveled with their families through parts of Europe, the Caribbean, and the United States, while some have seen very little of the world beyond the Southeastern U.S. Most students are aware that they have a very limited view of world geography, and the majority of students seem determined to do well in the class. At the beginning of a semester, students are asked to write some of their expectations for the class and typical comments include: “I want to be able to watch the news and know where places are,” “I'm a business major and I'd like to know more about international business and world cultures,” or “I'm going to have to teach this stuff myself in a couple of years and I don't know anything!”

As Thompson (1996) notes, many students, particularly in introductory-level classes, will never be practitioners in the field in question. They have little need for content-driven instruction. But regardless of their career choice, they will need to be logical and scientific in their approach to challenges, evaluate the quality of a growing volume of data, and take positions on complex issues. This notion rings especially true in an age where most disciplines advance in a rapid pace and the shelf life of information is often quite brief (Cowdroy & Mauffette, 1998).

This PBL version of GEOG 101 represents a shift away from traditional teacher-led modes of instruction while retaining some of the best aspects of lecture-based teaching. Lectures remain a vital part of the class, both to ensure a common background for students as they embark on their PBL modules and to solve the content dilemma. A typical lecture might last 30 minutes and include background information or details about a particular geo-
graphic topic. Despite the non-traditional nature of this class it was deemed essential to retain a textbook to serve as a general reference and as a potential starting point for working on the PBL modules. The required text for GEOG 101 is *Geography: Realms, Regions and Concepts* by H. J. De Blij and Peter Muller. The book is in its 10th edition and has been part of college geography classrooms for 25 years. The book is one of the best selling college geography texts of all time and is widely used throughout the U.S. and Canada.

**Class Goals and Objectives**

The primary goal of GEOG 101 is to give students a basic understanding of the world’s geography that moves beyond simple “place name geography” towards an appreciation for the complex interactions of the human and physical dimensions of the globe. Secondary goals include the development of a spatial perspective and an understanding of geography as an integrative discipline. By developing a spatial perspective, students learn to see the world in terms of interaction across space, and they begin to see geography as a tool to integrate such diverse fields as political science, geology, environmental science, sociology, history, and even psychology to produce a more complete and accurate portrait of the earth.

The first of the class objectives is developing the ability to link class information with real world events. Too often the material presented in lecture or text, regardless of the fact that it is explicitly about the world, is viewed as discrete bits of information lacking relevance with larger global issues. PBL provided a means of linking bits of information together in the resolution of a specific problem. Students are also expected to evaluate and process information.

Previously the biggest challenge for students was finding information about a research subject. Today in the age of search engines, it is not uncommon to get tens of thousands of hits from a simple web search. Now the challenge in education is not simply finding information, but learning how to cope with the ever-
increasing volume of information. It is hoped that through the
course of a PBL module students will be forced to not only gather
information but to filter it as well. Simply acquiring a certain num-
ber of articles will not be enough. Information must be evaluated
for relevance, for authenticity, and for applicability to the prob-
lem at hand. Thus the search for information becomes less about
gathering discrete facts and more about winnowing and then or-
ganizing facts that contribute to the solution of a specific problem
(Jacobsen & Mark, 2000).

PBL may also provide a more realistic portrait of student learn-
ing than traditional assessment methods. Geography instructors
spend a great deal of time trying to convince students that there is
more to understanding geography than the simple memorization
of facts. Then the test comes and it is all about low-order learning
skills such as simple recall. It is time that the grading methods
reflected the rhetoric. This method requires students to practice
the integrative skills of geography and to be assessed on those
skills rather than on their ability to memorize discrete facts.

Another important goal is to promote higher order thinking
beyond memorization. Courses driven by high content demands
tend to emphasize lower-order thinking skills. In Bloom’s (1956)
well-known taxonomy of cognitive thinking, the first two levels
are knowledge and comprehension. Simple recall of facts and in-
formation are the primary goals of such an approach. Higher or-
der skills such as application, synthesis, and evaluation can only
be achieved through a more active approach to learning. That is
exactly where PBL comes in. Memorization ranks among the low-
est order skills that a student should possess. It is hoped that the
selective introduction of PBL modules into a traditional class for-
mot will promote the higher-order skills of synthesis, interpreta-
tion, and evaluation.

Using the Modular Approach and Integrating Group Work

The PBL modules used in this class were designed to follow the
existing region-based structure and to be exportable. Each of them
could stand alone, but together they formed a coherent series of
exercises that took students on a voyage through several of the world's realms. In addition the modules provided an introduction to the complexity and ambiguity of real world situations by simulating the ill-structured nature of geographic problems. As the class progressed through the series of modules, they were introduced to more and more complex problems. The modules may be viewed as a step-wise hierarchy where the challenges and demands of the modules increased along with the student's progress through the class.

During the first class meeting students were asked to draw a map of the world from memory. They were asked to include as much information as they could recall in about 10 minutes. After the task was completed, there was a brief lecture about mental maps and about student perceptions of the world. Then the class was divided into five pre-selected groups. Most researchers have found that pre-selected groups form the most beneficial learning environment. Unlike many group activities where the students self-select their groups, "cooperative learning [and PBL] typically begins with the intentional selection of group members on the basis of pre-determined criteria which have been deliberately designed to potentiate the positive effects of small group learning" (Cusco, 1992, p. 5).

For the purposes of this class the criteria of gender, academic major, and class standing were used to pre-select the groups. The 22 students in the class were divided into groups of four or five. Groups of four allow pairs to form within the group and for each pair to share with the other. If groups are too small there may be an insufficient diversity of opinions to achieve the synergy necessary for effective group learning. If groups are larger than five, group cohesion becomes problematic, and individual students may be inhibited in sharing their opinions with a larger group.

In order to achieve the learning objectives, it is necessary for the groups to evolve into teams. According to Johnson, Johnson, and Holubec (1993), the most important element of cooperation is the concept of positive interdependence. This concept becomes reality when students realize that they can learn and achieve more as a group than they can as individuals. This concept is illustrated on the first day of class, when the groups are formed and students
are asked to bring their maps of the world back out and discuss them with the group. The group must then combine the maps and produce a single composite map for the entire group. If possible the composite map is drawn on an overhead transparency sheet and shared with the rest of the class. There are several important elements in this seemingly simple exercise.

1. Students learn that most of their group members don’t know much about the world (though there may be an occasional geo-genius in the class, it is rare).
2. Students begin to share information within the group.
3. They communicate and devise strategies for completing the assignment.
4. They learn that their collective map is a significant improvement on their individual efforts.
5. They learn how their mental map of the world reflects their perceptions of the world and how those perceptions are formed.

In this single exercise students laugh, share and collate information, plot strategies, choose roles (though not explicitly), present information, and evaluate their findings. This first exercise also forms the foundation of future team building exercises.

Migration and Mexico: A PBL Module

I describe the second module since it provides an example of how a hybrid model of PBL can be used to address specific concerns of an introductory level course. Some of the concerns of using this method in an intro-level course include: lack of student background in subject, coping with the content demands of the course, little experience doing collaborative and cooperative work, time constraints, and a lack of student research experience. In this module students assume the role of a poor Mexican farmer living in rural Northern Mexico. Each group member chooses a different option to research.
A. Migrate to Mexico City
B. Migrate to Ciudad Juarez
C. Migrate to the United States
D. Migrate to Monterrey
E. Stay in rural Mexico

Students research their option as individuals—noting both positive and negative aspects of the option—then reconvene as a group to vote on the best option. Later the groups are gathered together in a class discussion to evaluate positive and negative aspects of each option and to decide on the best option. By completing this module, students learn about migration, conditions in rural Mexico, the physical geography of Mexico, and develop a basic understanding of economic issues such as NAFTA.

In order to address the student's lack of background in the subject, the unit begins with a short lecture on the basics of Mexican geography, introducing the country and providing a common background for all students. The introductory lecture also examines student stereotypes concerning the country. For example most students view Mexico as a small, impoverished country. A map of Mexico is overlaid on a map of the United States and shows Mexico stretching from Oregon to Florida. Comparative economic data is then presented which show that by world standards, Mexico is a solidly middle class country in terms of per capita income and manufacturing output. The chapter on Mexico from the text is also assigned. These steps help assure that all students have been exposed to the same background materials as they begin their assignments.

Issues of collaboration and cooperation begin with the first module discussed earlier and are reinforced as the semester progresses. In this case, the module involves individual work, but the assignment cannot be completed without group cooperation. In addition, clearly defined products help students work together. A short paper is required from each individual and the final product from each group is a migration decision supported by facts. In keeping with the ill-structured nature of PBL, there are no right or wrong answers. Each migration decision is valid as long as it is supported by valid information and exhibits sound logic.
This module represents just one of at least ten realms that need to be covered in this class, so no more than a week can be spent on this module. Several steps are taken to assure efficient use of time. First some introductory material is provided. I provide packets of relevant information that relate to the ill-structured problem. At the beginning of the modules, after migration options are assigned, students go through the packets and divide the material up accordingly. Students work on their projects during class time. I serve as tutor or facilitator moving between groups, offering advice, and critiquing decisions. The packet of introductory materials provides students with resources to address their lack of research experience. Other means of addressing that concern include providing a list of references, collecting appropriate web sites, emphasizing use of the textbook, and establishing an in-class library for student use.

Under a traditional lecture format, I typically covered the following material: exploration of the size and diversity of Mexico, historical sequence of occupation, conditions in rural Mexico, relations with the U.S., NAFTA, and major regions of Mexico (Border, Tropical Coast, Mesa del Norte, The Core [Mexico City], Southern Mexico). Using this module, students examined all but the historic sequence of occupation, but they explored additional topics including migration patterns, push/pull factors that influenced migration, current trends in migration, political turmoil in Southern Mexico, and economic development in rural Mexico (Fournier, 1999).

The modules that worked best were short. They took one or two class periods to complete. With the short modules it was easier to integrate the PBL into the rest of the class. With longer modules it seemed like they took on a life of their own apart from the major class content. Shorter modules also served to keep the students on task. There were fewer options and thus, fewer opportunities to do unnecessary work. Some of the students expressed frustration when working on the longer modules. There were more opportunities for group dysfunction to erupt when a module extended over a week. Students would get sick, miss a meeting, have other commitments, and disrupt the group process. With shorter modules, especially those that used class time, it was easier to
keep students focused on their material and to link the modules with text and lecture.

The best modules (in my opinion and in the student's opinion) allowed the students to assume a role to solve their problem including the scenario above, where students assumed the role of a Mexican farmer. Other modules allowed the students to assume the role of a Peace Corps volunteer and of a businessperson investigating investment opportunities in sub-Saharan Africa.

Conclusion

PBL represents a struggle between process and content. The time demands of PBL mean that less content will be covered. This is troublesome in a subject where students have little background, and while there are no subsequent classes that demand a certain minimum content from GEOG 101 (i.e. there is no GEOG 102—it is not part of a sequence), it is still imperative that we cover as much of the world as possible. In the pilot version of this class, reading was pared down, and lecture time was reduced by about half. As a result we failed to cover significant portions of the world in a reasonable manner. If this method is to succeed there must a way to reconcile the time demands of the PBL methodology with the content demands of the subject (Wu & Fournier, 2000).

The questions that need to be studied further include: Do students learn more in PBL classes? Do they retain the information longer? Will teachers willingly bring this method into their classes? These questions can only be answered over time. Ideally, a longitudinal study that tracks students who take PBL classes is one way to examine these questions.

References


Caliagahan, NSW, Australia: Australian Problem Based Learning Network.


Food and Culture: Using Ethnic Recipes to Demonstrate the Post-Columbian Exchange of Plants and Animals

by Barbara E. Fredrich

DEPARTMENT OF GEOGRAPHY, SAN DIEGO STATE UNIVERSITY, SAN DIEGO, CALIFORNIA.

The impact of the post-Columbian exchange on both New World and Old World cultures can be examined through college student analyses of ethnic recipes. Working independently or in a classroom exercise, the student selects a recipe, identifies the world region of domestication of each ingredient listed, determines to what extent the ethnic recipe is comprised of native foods, and suggests what cultural processes may be involved in the evolution of the recipe. Information sources, lists of domesticated biota by region and type, and two sample recipes are presented to illustrate the methodology. Key Words: food and culture, ethnic recipes, post-Columbian biotic exchange.

Food, often in our thoughts, essential to our existence, and varied in culture, is a subject which is underutilized but well-suited for geographic analysis in college-level classrooms. As evidence of specific methods by which people combine certain ingredients in the preparation of a meal, a recipe symbolizes the long and complicated human relationship with food acquisition and preparation.

Next year we will celebrate the quincentennial of Columbus’ discovery of America. Distinguishing components of Old World culture from those extant in the New World at the time of Columbus is a prerequisite for understanding the landscape changes that ensued. One way to demonstrate the global impact of that discovery is to identify Old World and New World plant and animal ingredients listed in ethnic recipes. Ethnic relates to large groups of people classed according to common traits and customs, and when applied to the preparation of food, denotes a prescribed custom or characteristic of a given culture group. Given the current concern for natural foods and food preparation in the age of cholesterol and a fast-paced urbanized society, interest in food has not abated.

This paper describes guidelines for college students to study ethnic recipes, presents two sample recipes derived from an introductory cultural geography class, assesses the results from that student activity, and proposes strategies to enhance the exercise.

Methodology

Students should be familiar with broad characteristics of culture: language, religion, and ethnicity, the cultural universals, and their temporal and spatial interaction prior to the introduction of the exercise. Understanding and imaging the processes of diffusion and its spatial manifestation provides a conceptual framework for analysis of the regionalization of folk traditions evinced in a recipe.

1. Choice of Recipe

Selection of a suitable recipe to be evaluated is left to the students. Their source materials may vary, derived from a perusal of cookbooks, consultation with parents or relatives, or the public or college libraries. Hundreds of cookbooks are typically housed, scrutiny of the numerous popular, family-oriented magazines such as Woman’s Day or Family Circle, inspiration from a gourmet periodical, or listings from a fast-food chain and canned meals. Even a TV dinner label may capture the student’s imagination.

2. Outline of Report

A complete annotation, author, year of publication, book title, and page on which the recipe appears permits verification of the source of the recipe and may appear on the first page of the report. A typewritten copy of the recipe in its entirety follows. Then all ingredients in the recipe are listed on a separate page in one column. For each ingredient listed, the student identifies the original place of domestication and a source reference, such as an encyclopedia, used to ascertain that information. An optional map of the world regions spatially relates the source regions for each of the ingredients. Then a final section is used to answer the question, to what extent does the ethnic recipe include “native” ingredients, that is, plants or animals domesticated within that region? What cultural processes are involved in the evolution of the recipe?

To stimulate interest, demonstrate the simplicity and cohesiveness of the task, encourage timely completion of the exercise, and to promote volunteered oral presentations of the projects, the teacher might opt to present a sample recipe.

3. Information Sources

A typical college dictionary provides information relative to the region of origin for most ordinary ingredients. Standard encyclopedias are another readily available source. Lists of
Old World and New World origins for plants and animals appear in Cultural Geography by Spencer and Thomas (1969) and are reproduced in De Blij’s and Muller’s Human Geography: Culture, Society, and Space (1986). West and Augelli (1989) itemize Mesoamerican domesticates. A selected list (Table 1) based on these sources compares plants by general features, including cereals, pulses, roots and tubers, oils, fruits and nuts, vegetables and spices, dyestuff or fibers, starches and sugars, and beverages, as classified by Harlan (1975, pp. 69-78). A comparison of Old World and New World animal domesticates appears in Table 2.

These listings are incomplete; nevertheless, they permit some regional comparisons of diet to be made. Furthermore, that more than one region of domestication for common plants such as rice exists, is readily apparent. Also, both tables serve as hand-outs for classroom use when time does not permit individual library research. Under these circumstances, it is useful to encourage students to speculate where the plants and animals originated before handing them the materials. This discussion could be catalyzed by a slide presentation of the major food plants or actual samples of exotic fruits and vegetables.

### Table 1

**SELECTED OLD WORLD DOMESTICATED PLANTS BY REGION AND GENERAL USE***

<table>
<thead>
<tr>
<th>Region</th>
<th>Plant</th>
<th>General Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Central China into Central Asia</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Milli-C</td>
<td>Soybeans-P</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Buckwheat-C</td>
<td>Cabbage-V</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Oats-C</td>
<td>Radiish-R</td>
<td>Parsley-V</td>
</tr>
<tr>
<td>Leek-V</td>
<td>Plum-F</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Pear-F</td>
<td>Cherries-F</td>
<td>Wheat-C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cucumber-V</td>
</tr>
<tr>
<td>Southernmost China to Upper Indochina/Thailand</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Citrus-F</td>
<td>Yam-R</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Banana-F</td>
<td>Rice-C</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Cabbage-V</td>
<td>Cinnamon-V</td>
<td>Parsley-V</td>
</tr>
<tr>
<td>Litchi-F</td>
<td>Mung beans-P</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wheat-C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cucumber-V</td>
</tr>
<tr>
<td>Mainland Southeast Asia</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Yam-R</td>
<td>Tomato-V</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Rice-C</td>
<td>Cucumber-V</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Banana-F</td>
<td>Black pepper-V</td>
<td>Parsley-V</td>
</tr>
<tr>
<td>Almond-F</td>
<td>Breadfruit-F</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Cardamom-V</td>
<td>Jackfruit-F</td>
<td>Wheat-C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cucumber-V</td>
</tr>
<tr>
<td>Eastern India to Thailand</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Yam-R</td>
<td>Banana-F</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Taro-R</td>
<td>Rice-C</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Millett-C</td>
<td>Peas-P</td>
<td>Parsley-V</td>
</tr>
<tr>
<td>Sorghum-C</td>
<td>Eggplant-V</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Turmeric-V</td>
<td>Kapch-D</td>
<td>Wheat-C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cucumber-V</td>
</tr>
<tr>
<td>Northwestern India to Eastern Turkish Highlands</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Wheat-C</td>
<td>Melon-F</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Rye-C</td>
<td>Poppy-O</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Oats-C</td>
<td>Saffron-D</td>
<td>Parsley-V</td>
</tr>
<tr>
<td>Barley-C</td>
<td>Turnip-R</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Lentil-P</td>
<td>Onion-V</td>
<td>Wheat-C</td>
</tr>
<tr>
<td>Peas-P</td>
<td>Beans-R</td>
<td>Cucumber-V</td>
</tr>
<tr>
<td>Sesame-O</td>
<td>Carrots-V</td>
<td>Black pepper-V</td>
</tr>
<tr>
<td>Rapesed-O</td>
<td>Hemp-D</td>
<td>Breadfruit-F</td>
</tr>
<tr>
<td>Caraway-V</td>
<td>Pomegranate-F</td>
<td>Jackfruit-F</td>
</tr>
<tr>
<td>Mediterranean Rim</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Grapes-F</td>
<td>Olive-O</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Lentil-P</td>
<td>Date-F</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Garbanzo-P</td>
<td>Carob-S</td>
<td>Parsley-V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eastern African Highlands and Sudan</td>
</tr>
</tbody>
</table>

### NEW WORLD PLANTS

<table>
<thead>
<tr>
<th>Region</th>
<th>Plant</th>
<th>General Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Mexico to Northernmost South America</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Maize-C</td>
<td>Tomato-V</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Amaranth-C</td>
<td>Tomato-V</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Bean-P</td>
<td>Cooten-D</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Squash-V</td>
<td>Guava-F</td>
<td>Wheat-C</td>
</tr>
<tr>
<td>Taro-R</td>
<td>Palm-F</td>
<td>Cucumber-V</td>
</tr>
<tr>
<td>Avocado-F</td>
<td>Vanilla-V</td>
<td>Black pepper-V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Andean Highlands</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Pumpkin-V</td>
<td>Quinoa-V</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Strawberry-F</td>
<td>Papaya-F</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Beans-P</td>
<td>Oca-R</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wheat-C</td>
</tr>
<tr>
<td>Eastern Southern America</td>
<td>Lettuce-V</td>
<td>Garlic-V</td>
</tr>
<tr>
<td>Beans-P</td>
<td>Cotton-D</td>
<td>Broadbean-P</td>
</tr>
<tr>
<td>Manioc-R</td>
<td>Cashew-nut-F</td>
<td>Fennel-V</td>
</tr>
<tr>
<td>Peanuts-P</td>
<td>Cacao-B</td>
<td>Eastern African Highlands and Sudan</td>
</tr>
<tr>
<td>Brazil nut-F</td>
<td>Taro-R</td>
<td>Wheat-C</td>
</tr>
<tr>
<td>Mate tea-B</td>
<td></td>
<td>Cucumber-V</td>
</tr>
</tbody>
</table>


- C = cereal or pseudocereal
- V = vegetable
- P = pulse
- D = dye or fiber
- R = root or tuber
- S = sugar/starch
- O = oil
- B = beverage
- F = fruit or nut

---

---
Understanding the Differences
To dramatize the Columbian exchange, we need only to look at how important some of the condiments were to early travelers. For example, the spices, allspice, cloves, and nutmeg were very useful to conceal the smell of putrid meat prior to refrigeration. Moreover, many useful plants such as the rubber tree or the cinchona bark from which quinine was extracted provided the impetus for exploration, discovery, and conquest (Baker, 1970; Hobhouse, 1985; Wheelwright, 1974). Two classic examples, the potato and sugar cane, familiar to most students, had an enormous effect on European history.

The death of New World domesticated animals, emphasized in Table 2, is a source of amazement to students. At the time of Columbus, apart from the dog, there was only poultry, guinea pigs, llamas and alpacas. The Iberians introduced cattle, horses, sheep, goats, pigs, mules, and donkeys to the New World. In the absence of major predators and the advantage of the largely unused grasslands, these animals proliferated, thereby assuring the Spanish of a steady meat supply when they returned.

Understanding the Processes
The process of domestication of plants and animals is treated in Sauer’s classic Agricultural Origins and Dispersals(1932). Epstein, in collaboration with Mason, details the origins of domestic animals of Africa (1971). A multi-authored volume edited by Ucko and Dimbleby (1969) reveals regional evidence for domestication of particular taxonomic groups. Animal husbandry is traced by Clutton-Brock from the Pleistocene to the present (1981). These pertinent themes are introduced in cultural geography texts; for example, Rubenstein’s and Bacon’s The Cultural Landscape: An Introduction to Human Geography (1983) presents concepts of agriculture hearths and distinguishes the diffusion of vegetation from seed agriculture. The importance of New World and Old World plant and animal exchanges to the evolution of post-Columbian culture and their spatial manifestation is emphasized in The Columbian Exchange, by Crosby (1972). In addition, there is a general history of plants, accompanied by a colorful portrayal of over 60 plants, published by the National Geographic Society (1957). The Atlas of Food Plants, a folio of 18 crop plants in which the origin and spread of these crops are indicated in time and space, published by UNESCO, may be a useful reference and pedagogic device. Further insight into the nature of change is documented in a chapter by Jonathan Sauer on changing perception and exploitation of New World plants in Europe (1976).

The experimentation component to the domestication process was not without inherent danger, for sometimes portions of plants are toxic. Consider that the eating of raw manioc or cassava, the ingredient of tapioca pudding, could have resulted in death. Likewise, the attractive seeds of the castor bean plant are poisonous.

The fact that a given plant is domesticated does not mean it will quickly achieve universal acceptance or be used in a similar fashion. The tomato, for example, a New World plant, was not readily accepted in northern Europe. Coffee was first domesticated as a medicinal plant in the highlands of Ethiopia.

Student Sample Recipes
Two examples of recipes are presented to demonstrate different approaches to the exercise. The first recipe is consouci, a Middle Eastern dish (Figure 1). The lively description of the food preparation may whet or repulse the appetite depending on the image of boiling fish tails and steaming scum evoked (Figure 2). The recipe was determined to be very characteristic of the region. A minimal amount of ingredients were non-western Asia in origin. Only the cayenne pepper is a New World plant. Both black pepper and cayenne pepper were incorporated by traders and travellers after about 1600. The student suggested that the diffusion process was hierarchical, from port cities to smaller towns inland.

The second recipe typifies the modern fast-food diet characteristic of some students’ lifestyles, but selected by a foreign student as “typical Anglo-American” food (Figure 3). The case in point, a Big Mac with fries, is available in virtually every city in the United States. The information source for all of the ingredients used in the preparation of that meal is McDonald’s Food: The Facts, a 46-page booklet obtainable from the company. Actual cooking procedures are not indicated; the student elected to “sample the same meal at several different locations” and noted the overall uniformity in presentation and taste. The condiments used to flavor the sauces are a remarkable blend of Old World and New World plants (Figure 4). Similar information is likely available from other fast-food stores.

Observations
Approximately 36 percent of the students selected Oriental recipes, including Japanese, Chinese, Thai, Vietnamese, and Indonesian examples. European recipes, primarily French and Italian examples, were the choice for about 28 percent. Finally, nearly 21 percent of the students chose native-American recipes, including both North and South American dishes. However, Mexican recipes incorporating maize, beans,
COUSCOUS WITH FISH

Title: A Book of Middle Eastern Food
Author: Claudia Roden Page: 261 Year: 1972

3/4 cup chickpeas, soaked overnight
fish tails and heads to make a stock
3 carrots, sliced
cored and sliced Cayenne pepper
1 to 1-1/2 lbs. couscous
1-1/2 to 2 lbs. fish (see above)
1 sweet green pepper, seeded
2-3 quinces, peeled, cored, and sliced
1 onion, quartered
3/4 teaspoon saffron
salt and black pepper

In a large pan, make a rich fish soup. Boil the fish tails and heads with all the vegetables, salt, black and cayenne pepper, and saffron in 3-7 cups water. Remove the scum as it rises to the surface. Simmer for an hour until the stock is rich.

Moisten the couscous slightly with cold water, working it in with the fingers to prevent lumps from forming. Turn it into the strainer part of the couscoulie, pour the fish soup over and cool it. Add the quince, salt and pepper to the soup and add the saffron. Add a little sugar to this point if you like. The water will make the grains swell very much (a tablespoon of oil is sometimes added at the same time). Return to the top container and steam for a further 30 minutes. Put couscous in strainer and steam it over the simmering fish stock for 30 minutes. Remove the couscous and treat it as previously described.

Remove the fish tails and heads from the stock and, if you like, strain through a fine sieve, then return the vegetables to the stock. Lower in the whole fish (sliced, if too large). Add the sliced quinces. Return the couscous to the sieve and steam it over the simmering fish for a further 30 minutes, less if the pieces of fish are not large. Adjust the seasoning of the reduced fish stock.

Serve the fish and its sauce over the couscous in a large dish, or in separate dish. The strong-tasting quinces give this dish a very distinctive flavor.

Figure 1
and squash predominated in that category. The remaining 15 percent picked North African, East African, or Southwest Asian recipes.

Student-written responses to the project demonstrated insight into post-Columbian global plant and animal exchange patterns. For those who glorify European cuisine, food appears to have been bland in Europe prior to the discovery of the New World. An Italian diet without spaghetti or tomato sauces, neither of which is native to Italy, lacks its current distinctive character. Many misconceptions about plant origins were clarified. To illustrate, several students thought hot peppers were domesticated in China because of the piquant cuisine (Szechuan). The Columbian exchange underscores the processes by which a non-native ingredient such as the potato can be incorporated into a typical Portuguese meal of codfish. In an introspective context, several students commented that most food they consume is the consequence of domestication processes elsewhere. High prices for exotic foods are thereby rationalized. These observations suggest that the exercise was a fruitful experience.

Possible Strategies
This exercise has the potential to be amplified in several dimensions. For example, a Saturday morning field trip exploring local fruit and vegetable markets permits familiarization with the variety of products currently available and identifies the spectrum of users/purchasers. Several students proposed a Global Food Day in which traditionally prepared and presented ethnic dishes, representing major world regions, are sampled. In lieu of that, a culinary geography of ethnic restaurants could suffice if permitted by class size and time. Maps can be generated to illustrate the spatial and temporal characteristics of ethnic restaurants, the frequency versus the avoided places (i.e., the evolving landscape of eateries).

In addition, students may wish to examine the nature of food consumption habits on a behavioral level that might reflect regional differences. One example is the importance ascribed to the color of food (i.e., meat must be red) and the inappropriateness of other colors. For example, the color blue, with the exception of blueberries, blue tortilla chips, and possibly blue potatoes, is generally visually unacceptable in food. Another component is taste; some students questioned why salt and sugar appear in such quantities in so many fast foods. Finally, the texture of food can be anything from

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black pepper</td>
<td>East India *</td>
</tr>
<tr>
<td>Salt</td>
<td>Arid regions</td>
</tr>
<tr>
<td>Saffron</td>
<td>Western Asia</td>
</tr>
<tr>
<td>Cayenne pepper</td>
<td>New World tropics</td>
</tr>
<tr>
<td>Chickpeas</td>
<td>Southwest Asia</td>
</tr>
<tr>
<td>Couscous</td>
<td>Wheat flour, Southwest Asia</td>
</tr>
<tr>
<td>Onion</td>
<td>Asian dish is African.</td>
</tr>
<tr>
<td>Quince</td>
<td>Western Asia</td>
</tr>
<tr>
<td>Turnips</td>
<td>Western Asia?</td>
</tr>
<tr>
<td>Carrots</td>
<td>Near East</td>
</tr>
<tr>
<td>Fish</td>
<td>Ocean</td>
</tr>
</tbody>
</table>

* All sources are from the World Book Encyclopedia.

Comments: "Couscous with Fish" is the native dish of the Maghreb, the North African countries of Morocco, Tunisia, and Algeria. "I felt that it is an extremely characteristic native recipe of the Middle East; there is a minimal amount of ingredients that have not originated in Asia or the African Mediterranean. The non-native ingredients likely became part of the native dish by traders and travellers after about 1600. It may have been a hierarchical diffusion process, going from trading port centers to smaller towns."

Figure 2

JOURNAL OF GEOGRAPHY
appealing to repulsive. Again, students could evaluate why some find okra and eggplant unpalatable while others consider them delicacies. Cultural acceptance or rejection of foods can be discussed by simply ascertaining what types of foods do students avoid altogether and the reasons for these exclusions. There may be a commonality of experience, perhaps by age or gender, which can be demonstrated during classroom discussions.

Finally, the growing concern for good eating habits could be reinforced by requiring information on estimated nutritional and caloric values per serving. Patterns of global caloric intake and nutritional standings allow for regional or country-wide analyses and comparisons.

Conclusion
The recipe project enables students to utilize a variety of resources to distinguish the Old World plants and animals from those in the New World. In a brief report at a world region level they apply cultural geographic themes including the process of diffusion over time and space, and humans as agents of change, to the interpretation of the landscape of food. They attain insight into plant and animal domestication processes. With recipes as a record of changing perceptions, they can sense, speculate, or project food landscapes of the future. Classroom discussions may correct any stereotypes and counter any misconceptions about food. Linking spatial concepts and theories discussed in lecture to one’s private life enables the student to evaluate personal choices against the conventional guidelines in society.

References