

Colonnade General Education Committee  
Western Kentucky University  
Report to the University Senate

**Date: December 13, 2016**

From: Marko Dumančić, Chair

Colonnade General Education Committee submits the following items from the November 30, 2016 meeting for approval by the University Senate:

CONSENT ITEM REPORT:

1. Inclusion into the Colonnade program, Connections category  
GEOG 225 - Systems

## **Colonnade Connections Course Proposal Systems Subcategory**

Proposal Contact David Keeling: ([david.keeling@wku.edu](mailto:david.keeling@wku.edu)) – 5-4555  
Ogden College of Science and Engineering,  
Department of Geography and Geology:

Proposal Date: 11/2/2016

### **1. Course Details:**

- 1.1 Course prefix (subject area), number and title: GEOG 225
- 1.2 Credit hours: 3
- 1.3 Prerequisites: 21 hours of Colonnade Foundations & Explorations coursework, or Junior Standing.
- 1.4 Crosslisted and/or equivalent courses (prefix and number): None
- 1.5 Expected number of sections offered each semester/year: Two sections per semester
- 1.6 Is this an existing course or a new course? Existing Course not previously taught.
- 1.7 Implementation Term: Fall 2017**
- 1.8 Where will this course be offered? (Bowling Green main campus, regional campuses, online? List all.) Bowling Green main campus and regional campuses as staffing allows.

### **2. Provide a brief course description (100-200 words).**

Visualizing Geography uses photographs, maps, media, and illustrations, at local, regional, and global scales, to explore critically how integrated structures such as cultural systems, political systems, resources, environments, and population movements influence our perceptions and understanding of the world around us as a unified, holistic system.

### **3. Explain how this course provides a *capstone* learning experience for students in Colonnade (compared to an introductory learning experience).** Explicitly address how students in the course apply knowledge from multiple disciplines to the significant issues challenging our individual and shared responsibility as global citizens.

The proposed course aims to help students make interdisciplinary and systematic connections between diverse patterns of human activity at local, regional, and global scales using visual representations of the world as the central theme. Students will analyze how spatial patterns and geographic processes are represented through maps, photographs, media, and other illustrative forms, and will explore critically how and why these geographic representations influence the way we perceive the world system at different scales. Students will be challenged not only to analyze and deconstruct visualizations of the human and physical world, but also to reflect on how maps and other images are used to influence our perceptions and actions of the global system, and thus our behaviors as global citizens. The well-established World Systems Theory (Wallerstein, 2004) and the World Cities in a World System paradigm (Knox and Taylor, 1995) serve as overarching frameworks for this course. Students are expected to complete a capstone project using the evidence and argument approach to investigate how visualization is a powerful geographic influence. For example, a capstone project could focus on the power of propaganda maps during wartime or how the gerrymandering of voting districts impacts the American political system. Another student research project could examine how maps created by non-geographers and shared on social media are used to shape perceptions of cultural systems at local, regional, and global scales. Students with interests in the environment could have a capstone project on how satellite

images reveal the impacts of coal mining on the landscape of Appalachia as well as provide evidence of climate change systems. Each of these types of capstone projects would present an intellectual challenge and provide students with new perspectives on their role as members of their communities and as citizens of the world.

Knox, P., Taylor, P. (eds.) (1995). *World Cities in a World System*. New York: Oxford University Press.

Wallerstein, I. (2004) *World-Systems Analysis: An Introduction*. Durham, N.C.: Duke University Press.

**4. List the course goals (see Glossary of Terms), and explain how are they aligned with the Connections student learning outcomes.** In the table below, describe in the right-hand column explicitly how the course meets each Connections SLO for the Systems subcategory. Descriptions in the right-hand column should be consistent with statements listing of course activities, readings, etc. in the syllabus attached to this application.

Learning Outcomes: After the completion of GEOG 225, students will be able to:

- Analyze how systems evolve;
- Compare the study of individual components to the analysis of entire systems.
- Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

<b>Connections Student Learning Outcomes</b>	<b>How does the course meet these learning outcomes? (Align course goals to Connections SLOs)</b>
1. Analyze how systems evolve.	<p>* Students will analyze a range of issues relevant to the understanding of how visualization of the human and physical world impacts our perceptions of the world system at local, regional, and global scales, and ultimately impacts our behaviors.</p> <p>* Visual images such as maps are powerful tools that influence perception of the world system. Students will explore how, from the earliest hand-drawn maps to the most advanced computer-based cartography and Geographic Information Systems (GIS), imagery has been used to illustrate human and environmental conditions at local and global scales and, in many cases, seeks to influence our opinions and shape our perceptions of the world system.</p> <p>* Students will analyze the flows of humans and resources within local, regional, and global systems. For example, maps illustrating the global movement of migrants and refugees will be compared to maps showing migration patterns of displaced persons and migrants in the U.S. or showing movements across the U.S.-Mexican border.</p>
2. Compare the study of individual components to the analysis of entire systems	<p>* Local and global interrelationships are inherently systemic and geographic. One area of exploration will be the impacts of globalization and culture in shaping the contemporary world system. Central aspects of culture will be examined through the lens of diffusion using visual imagery. For example, how are economic landscapes in Beijing, China, different than similar landscapes in</p>

	<p>New York?</p> <p>* Students will investigate the impacts of cultural systems at local and global scales. For example, students will examine the recent migration flows of Spanish-speaking persons from Latin America to the U.S. that have created social issues resulting in “English Only” laws and other forms of cultural, political, and economic retaliation.</p>
<p>3. Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself</p>	<p>* One topic for discussion will be the impact of consumer behaviors and how these actions impact local and global economic systems spatially. At the global scale, students will explore how the advent of container ships and air freight has impacted commodity flows and trade systems.</p> <p>* Conversely, visualization will be used to illustrate how our demands as consumers have shaped the movement of goods and the organization of the retail systems. For example, the growth of Wal-Mart in the U.S. would not have been possible without low-cost labor in China and containerization of commodities, all part of the global system of economic supply and demand systems. Thanks to the power of globalization, Wal-Mart has reshaped local retail landscapes and employment structures, for better or worse. While some believe Wal-Mart has had a destructive effect on local businesses, the retailer has enjoyed large-scale success. Students will use geographic visualization, including landscape use maps and aerial photographs, to analyze and debate these opposing points of view about Wal-Mart with a World Systems context.</p>

**5. List additional student learning outcomes, beyond the three Connections SLOs, that will guide student learning in this course (if any).**

After the completion of GEOG 225, students will be able to:

- Analyze the current and changing world systems landscape
- Explain and analyze constituent parts of the World System of cities, cultures, and political states through visualization and be able to make connections between the constituent parts of the system.
- Compare a range of system characteristics using visualization techniques and determine interconnections from an Earth Systems perspective.
- Evaluate how public policies, societal norms, and international agreements influence global systems and what these mean for socio-economic change across the system.

**6a. Explain how the department plans to assess each of the Connections student learning outcomes beyond course grades.** Applicants are encouraged, but not required, to adopt or adapt the Connections Student Learning Outcomes rubric (available on [the Colonnade website](#)). Note: SACSCOC requires assessment of SLOs to compare Bowling Green campus, online, and regional campus learning experiences; some consideration of such a distinction must be included in the right-hand column, when applicable.

Connections Student Learning Outcomes	Identify the “artifact(s)” (assignments, papers, activities, etc) that will be used for assessing each learning outcome <i>beyond course grades</i> . Applicants must be explicit in describing how the artifact(s) provides evidence of student learning for each Connections SLO.	Describe in detail the assessment methods the Department will employ for this Connections course. Assessment plans must produce a <i>separate evaluative rating</i> for each Connections SLO.
1 Analyze systems across multiples scales.	Students will complete a visualization project consisting of a proposal, a brief oral presentation, a progress report, and a final report. The topic will be chosen by the student and should be related to the spatial dynamics of socio-economic-political systems in a global context. For this SLO, students will be asked to consider and answer the following types of questions: How did this socio-economic-political system come about? What is its history and geography? Has its purpose changed over time?	20% of the class will be randomly sampled and assessed according to the attached rubric. 50% should score “Good” or higher.
2. Examine the inter-relationships of various individual elements that make up the world system of cities, cultures, and political states.	As part of the final project described above, students will be asked to answer the following types of questions: <i>How do individual visualizations of the system contribute to the overall appearance, form, and function of the larger system? Are specific spatial elements necessary for the stability and structure of the system, or are they for policy purposes only?</i>	20% of the class will be randomly sampled and assessed according to the attached rubric. 50% should score “Good” or higher.
3. Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.	As part of the final project described above, students will be asked to answer the following types of questions: <i>In what ways does this system’s structure explain decision-making or policies, either at a local level or for</i>	20% of the class will be randomly sampled and assessed according to the attached rubric. 50% should score “Good” or higher.

	<i>society as a whole? Could a system's individual components be changed in such a way to change its contribution to society? How might this be visualized spatially?</i>	
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**6b. Include the rubric that will be used for Connections assessment (either in the space below or as an attachment).** If the assessment plan will utilize the Connections rubric available on [the Colonnade website](#), state as much.

	<b>(1) EXCELLENT</b>	<b>(2) GOOD</b>	<b>(3) NEEDS WORK</b>	<b>(4) POOR</b>
<b>1. Analyze how systems evolve</b>	Provides detailed analysis of visualization concepts to explain how different spatial systems develop in a reciprocal relationship with each other.	Can show based on visualization analysis some major interactions between multiple elements of the system(s).	Can demonstrate that, through visualization analysis, systems evolve due to the interaction of different component parts, but analysis is incomplete.	Cannot identify the major elements of the system(s) through the use of visualization principles.
<b>2. Examine the inter-relationships of various individual elements that make up the world system of cities, cultures, and political states.</b>	Provides precise and detailed visualization explanation(s) to show reciprocal feedback between an individual component and the whole system.	Can show based on the application of visualization principles how the component of a system affects the whole, but not <i>vice versa</i> or cannot explain reasoning.	Is aware the component parts and whole systems interact, but cannot provide adequate visualization evidence based on primary and secondary sources.	Is unable to clearly relate individual components to the whole system through the use of visualization principles.
<b>3. Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself</b>	Provides precise and detailed visualization reasoning to explain how major or influential decisions both affected and were affected by the state of the spatially structured system as a whole.	Clearly uses visualization techniques to show how major or influential decisions reshaped the system, or how the decisions responded to systemic conditions, but cannot do both.	Describes major or influential decisions, with some difficulty explaining the visualization techniques that underpins them. Inadequate use of visualization work/evidence in project.	Cannot demonstrate understanding of the concrete impact of visualization concepts in decision-making about systems.

In addition to the specific Student Learning Outcome detailed above, assessment of the learning objectives of GEOG 225 also will be accomplished via *pre- and post-course survey* for the purpose of enhancing the value of the course. Each Colonnade Systems Learning Objective will be individually assessed by three multiple-choice and/or short answer questions. A pass/fail evaluation will be made of the pre- and post-course assessments for each student in a particular class. A student will *Pass* when he/she correctly answers *two of the three* assessment questions (66%) for *each* Colonnade Learning Objective. At the end of the semester when the post-course assessment is complete, each student will have three Pass/Fail scores corresponding to the three Colonnade Systems Learning Objectives. Results obtained from each semester's assessment will be used to strengthen GEOG 225 in subsequent offerings.

**7. Evidence & Argument Artifact.** As the capstone experience for the Colonnade Program, Connections courses are expected to include activities, assignments, or other learning experiences that will produce at least one “artifact” (research paper, presentation, major project, etc.) that can be used to evaluate students’ ability to identify, synthesize, and make use of evidence in support of cogent and persuasive arguments. What “artifact” in the proposed course could be used for this purpose? (Note: This could be, but is not required to be, the same “artifact” identified in 6a above.)

**The final project as mentioned in 6a (above) will be used to evaluate students’ ability to identify, synthesize, and make use of evidence in support of cogent and persuasive arguments.**

**8. Attach a sample course syllabus.** The course syllabus must contain the three Connections student learning outcomes for the subcategory as well as any additional student learning outcomes listed in this application, and those learning outcomes must appear in every section's syllabus.

## **GEOG 225 – VISUALIZING GEOGRAPHY (3 credit hours)**

**Dr. David Keeling ([david.keeling@wku.edu](mailto:david.keeling@wku.edu)) - 745-4555**

**Purpose of the Course:** Visualizing Geography uses photographs, maps, media, and illustrations, at local, regional, and global scales, to explore critically how integrated structures such as cultural systems, economic systems, political systems, resources, environments, and population movements influence our perceptions and understanding of the world around us as a unified system.

**Learning Outcomes:** After the completion of GEOG 225, students will be able to:

- Analyze the current and changing world systems landscape.
- Examine constituent parts of the World System of cities, cultures, and political states through visualization and be able to make connections between the constituent parts of the system.
- Compare a range of system characteristics using visualization techniques and determine interconnections from an Earth Systems perspective.
- Evaluate how public policies, societal norms, and international agreements influence global systems and what these mean for socio-economic change across the system.

**Colonnade Systems Learning Outcomes:** GEOG 225 will teach students how to:

- Analyze how systems evolve over space and through time.
- Compare the study of individual cultural components to the analysis of entire global systems.
- Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

**Texts (required):**

Greiner, A.L., 2013. *Visualizing Human Geography*, 2<sup>nd</sup> Edn. New York: John Wiley and Sons, Inc.

**Selected readings** provided by the instructor, such as:

Extracts from Monmonier, M. (1996) *How to Lie with Maps*. Chicago: University of Chicago Press.

Selected articles from the “A Picture is Worth 1000 Words” section of *FOCUS on Geography*.

Fisher, P., Dykes, J., Wood, J. (2013) Map Design and Visualization. *The Cartographic Journal: The World of Mapping* 30(2): 136-142.

Extracts from Wallerstein, I. (2004) *World-Systems Analysis: An Introduction*. Durham, N.C.: Duke University Press.

**Assessment:** Your grade in this course will be based on how well you do on the exams, the exercises, and the final. The total points for the course = 500. The percent breakdown in each area is as follows:

### Percentage Breakdown

Midterm exams	30%
Exercises (approx. 10)	30%
Semester Systems Project	20%
Final	<u>20%</u>
	100%

**Grades:** Your grades on all work will be based on the following ranges:

A ≥ 90%	D = 60-69%
B = 80-89%	F ≤ 59%
C = 70-79%	

## GEOG 225 - Course Outline

Note: most readings come from Greiner’s *Visualizing Geography* and from readings provided by the instructor as global events determine.

Week	Topic	Reading
1	Setting the Context <i>Exercise 1: What are human systems and how do we visualize them</i>	Greiner Chapter 1 Wallerstein – World Systems Theory
2	Local-to-Global Systems <i>Exercise 2: Visualization Strategies</i>	Greiner Chapter 2 <i>A Picture is Worth 1000 Words</i>
3	Systems of Population <i>Exercise 3: Visualizing Movements of People across Time and Space</i>	Greiner Chapter 3
4	Language Systems <i>Exercise 4: From Babel to a Single Global Language – images of Language</i>	Greiner Chapter 4 <i>Map Designs and Visualizations</i>



5	Systems of Religion and Beliefs <i>Exercise 5: Landscapes of Religion</i>	Greiner Chapter 5 TBA
6	Review, Assessment, and Project start <b>EXAM 1</b>	
7	Systems of Identity <i>Exercise 6: Visualizing Race, Identity, Gender, and Sexuality</i>	Greiner Chapter 6 <i>How to Lie with Maps</i>
8	Political Systems and Spatial Patterns <i>Exercise 7: Systems of Borders</i>	Greiner Chapter 7
9	Political Systems and Spatial Patterns <i>Exercise 7: Mapping Spatial Conflicts</i>	Greiner Chapter 7 <i>A Picture is Worth 1000 Words</i>
10	Urban Systems and Networks <i>Exercise 8: Visualizing the Urban vs Rural</i>	Greiner Chapter 8
<b>Week</b>	<b>Topic</b>	<b>Reading</b>
11	Development Systems – Food and Energy <i>Exercise 8: Mapping Food Systems</i>	Greiner Chapter 9 <i>Wallerstein – World Systems Theory</i>
12	Spatial Patterns of Economic Systems <i>Exercise 9: Mapping where we buy stuff</i>	Greiner Chapter 10
13	Review, Assessment, and Projects <b>EXAM 2</b>	
14	Systems of Agricultural and Minerals <i>Project Discussions</i>	Greiner Chapter 11 <i>A Picture is Worth 1000 Words</i>
15	Environmental Systems Local-to-Global <i>Exercise 10: Environmental Challenges</i>	Greiner Chapter 12
16	<b>Final Exam and Project Submission</b>	

**Make-up Policy:** In general, I don't have a make-up policy. If you miss the deadline, you miss the opportunity to turn in the assignment. Be sure to note the exercise due dates and the exam schedule on the course outline. If you know of a schedule conflict or if you are absent and cannot turn in an assignment due to illness, you must notify me as soon as possible! The next lecture or visualization assignment is generally too late. Keep this in mind....

## University Policies

**Plagiarism:** The academic work of a student must be his/her own. To represent written work taken from another source as one's own is plagiarism. Plagiarism also includes lifting content directly from a source without giving credit. Plagiarism is a serious offense and a failing grade will be given on any course work where plagiarism is detected.

**Schedule Change Policy:** The Department of Geography and Geology strictly adheres to University policies regarding schedule changes. It is the sole responsibility of individual students to meet all deadlines in regard to adding, dropping, or changing the status of a course. Only in exceptional cases will a deadline be waved. The Student Schedule Exception form is used to initiate all waivers. This form requires a written description of the extenuating circumstances involved and the attachment of appropriate documentation. Poor academic performance, general malaise, or undocumented general stress factors are not considered as legitimate circumstances.

**Disability Accommodations:** Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services, Room 1074, Downing Student Union. The OFSDS telephone number is (270) 745-5004. Please *do not* request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

**General Comments:** This class will be very note and visually intensive; meaning, you will need to take notes regarding everything that I present in class, including video presentations and in-class discussions. The course will have an accompanying BlackBoard site where you will be able to review PowerPoints and access other materials. The lecture materials will be drawn from the required texts and supplementary articles, although I will be utilizing considerable outside visual materials, primarily from my personal archive of one million digital images and maps of over 1000 locations around the world. Note that *you must read the assigned readings* as it likely that I won't be able to cover everything in class.

The exams will cover the material from lectures, the assigned exercises, and any other readings (including videos). Exam questions will be a combination of essay and short answer questions. As you might expect, the final *is* cumulative.

**Nature of the Exercises:** Visualization and mapping exercises will require analysis and interpretation of specific images relating to the theme addressed in class that week.

**Term Project:** Students will complete a visualization project consisting of a proposal, a brief oral presentation, a progress report, and a final report. The topic will be chosen by the student and should be related to the spatial dynamics of socio-economic-political systems in a global context. For this Student Learning Outcome (SLO), students will be asked to consider and answer the following types of questions: How did this socio-economic-political system come about? What is its history and geography? Has its purpose changed over time? I anticipate the paper will be on the order of 3-5 pages of text, excluding visualizations. Deadlines for topic selection, outline with resources, first draft and final paper will be presented early in the course. Note that you will be giving your oral

presentation about your research paper at any time during the second half of the semester. The project accounts for 20% of your final grade.

**Final Comments...** This is going to be an interesting learning experience for everyone involved! I am going to be working hard to create meaningful learning opportunities for you. While I expect the course to follow the above course outline, I will likely stray a bit as I work out the flow of the course. As for you, I expect you to keep up with the assigned readings and exercises and to come to class each day ready to learn and ready to participate. Maintain a good attitude, work hard, and ask questions whenever you need help. I am glad you have decided to take the class!