Colonnade Program Course Proposal: Connections Category

Connections: Understanding Individual and Social Responsibility

Connections courses direct students to apply and integrate discipline-specific knowledge and skills to the significant issues challenging our individual and shared responsibility as global citizens. Students will learn to analyze and evaluate cultural contexts, examine issues on both a local and global scale, and apply system-level approaches to the stewardship of our social and physical environments. Although they may be used with a major or minor program, *Connections* courses are classes at the 200-level or above designed for the general student population, and may be taken *only after* students have earned at least 21 hours in **WKU Colonnade Program** coursework or have achieved junior status. *Connections* courses may not have graduate components or prerequisites other than approved courses within the **WKU Colonnade Program**.

Proposed courses must be designed to address specifically the goals and outcomes of <u>one</u> (1) of the subcategories listed below. Students will take one course from each of the three following areas, selecting three different disciplines (usually defined by course prefixes).

- **Social and Cultural** (3 hours)
  Students will investigate ways in which individuals shape, and are shaped by, the societies and cultures within which they live. Courses will consider the ethical questions and shared cultural values that shape societal norms and behaviors, the independent and collective or collaborative artistic expression of those values, and/or the role of social and cultural institutions in developing and sustaining norms, values, and beliefs.
    1. Analyze the development of self in relation to others and society.
    2. Examine diverse values that form civically engaged and informed members of society.
    3. Evaluate solutions to real-world social and cultural problems.

- **Local to Global** (3 hours)
  Students will examine local and global issues within the context of an increasingly interconnected world. Courses will consider the origins and dynamics of a global society, the significance of local phenomena on a global scale, and/or material, cultural, and ethical challenges in today's world.
    1. Analyze issues on local and global scales.
    2. Examine the local and global interrelationships of one or more issues.
    3. Evaluate the consequences of decision-making on local and global scales.

- **Systems** (3 hours)
  Students will examine systems, whether natural or human, by breaking them down into their component parts or processes and seeing how these parts interact. Courses will consider the evolution and dynamics of a particular system or systems and the application of system-level thinking.
    1. Analyze how systems evolve.
    2. Compare the study of individual components to the analysis of entire systems.
    3. Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

***NOTE: The **Colonnade Program** is designed to incrementally build student skills in argumentation and the use of evidence beginning with discipline-specific coursework in the *Foundations* and *Explorations* categories. By extension, *Connections* courses are intended to be summative learning experiences in which students apply basic knowledge to larger and more complex social, global and systemic issues of concern. Proposals should address this summative purpose in the design of the course and the assessment of student learning.

Please complete the following and return electronically to colonnadeplan@wku.edu.

1. What course does the department plan to offer in *Connections*? Which subcategory are you proposing for this course? (Social and Cultural, Local to Global, Systems)

   The Department of Geography and Geology proposes to offer GEOG 226 – Our Dangerous Planet as a Systems course in the Connections Category of the Colonnade Program.

2. How will this course meet the specific learning objectives of the appropriate sub-category? Please address **all** of the learning outcomes listed for the appropriate subcategory.

   Student Learning Outcomes for Connections - Systems courses:

   Colonnade Learning Objective 1) Analyze how systems evolve.

   - The student will gain an understanding of the geologic and atmospheric processes responsible for natural hazards, including earthquakes, volcanic eruptions, landslides, flooding, tornadoes, hurricanes, drought, and asteroid impacts.

   Colonnade Learning Objective 2) Compare the study of individual components to the analysis of entire systems.

   - The student will gain an understanding of the geographic distribution of natural hazards and the frequency which these hazards become natural disasters.

   Colonnade Learning Objective 3) Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

   - The student will gain an understanding of how society evaluates and confronts the dangers posed by these natural processes from a political, social, and ethical perspective.

   - The student will gain an understanding of how technological innovations allow an increasing human population to monitor, predict, and warn society about natural hazards and impending disasters.

3. In addition to meeting the posted learning outcomes, how does this course contribute uniquely to the *Connections* category (i.e., why should this course be in Colonnade)? Discuss in detail.

   GEOG 226 – Our Dangerous Planet goes beyond a typical introductory Earth Science course by taking the basic concepts behind Earth's dynamic systems (air, water, climate,

tectonics, etc.) and focusing on the spatial distribution as well as the relative frequency of the natural hazards associated with those dynamic systems. Rather than focusing on the understanding of the underlying concepts of Earth Science as in an "Explorations" type of class, GEOG 226 will emphasize the spatiotemporal dimensions of risk for each hazard as well as survival techniques. The course will conclude with a discussion of how global environmental change may influence the risks and severity of some of these hazards.

4. Please identify any prerequisites for this course. NOTE: Any prerequisites MUST be *Colonnade Foundations* or *Explorations* courses.

   There are no prerequisites to GEOG 226 – Our Dangerous Planet, although students may wish to take GEOG 103 – Our Dynamic Planet to gain knowledge of introductory concepts relating to the various aspects of Earth Science.

5. Syllabus statement of learning outcomes for the course. NOTE: In multi-section courses, the same statement of learning outcomes must appear on every section's syllabus.

   The following items will appear in all GEOG 226: Our Dangerous Planet syllabi

   Course description: Students in GEOG 226 – Our Dangerous Planet will understand the physical processes behind and the spatial dimension of Earth's natural hazards and disasters with a special emphasis on surviving them. These disasters include tectonic, oceanic, and atmospheric hazards. The semester will conclude with a discussion of how climate change may affect the risk and severity of some of these hazards.

   Learning Objectives for Colonnade Program: This course fulfills the Colonnade Program's requirements for the Systems subcategory of the Connections Category. As part of that program, GEOG 226 has the following learning objectives:

   Students will demonstrate the ability to:
   1) Analyze how systems evolve.
   2) Compare the study of individual components to the analysis of entire systems.
   3) Evaluate how system-level thinking informs decision-making, public policy, and/or the sustainability of the system itself.

   Learning Objectives for GEOG 226: The course objectives for GEOG 226 are designed to integrate fully with the Colonnade Program. Upon successfully completing GEOG 226, you will be able to:

   - Gain an understanding of the geologic and atmospheric processes responsible for natural hazards, including earthquakes, volcanic eruptions, landslides, flooding, tornadoes, hurricanes, drought, and asteroid impacts.
   - Gain an understanding of the geographic distribution of natural hazards and the frequency which these hazards become natural disasters.

- Gain an understanding of how society evaluates and confronts the dangers posed by these natural processes from a political, social, and ethical perspective.
- Gain an understanding of how technological innovations allow an increasing human population to monitor, predict, and warn society about natural hazards and impending disasters.

6. Give a brief description of how the department will assess the course beyond student grades for these learning objectives.

   Each student will be required to complete a term paper. This short (5-10 page) term paper will discuss in detail one of the natural hazards that will be discussed in class. The paper can address either (1) technical / scientific aspects of the natural disaster (for example, a discussion of how a lightning bolt is formed), (2) a discussion of a specific occurrence of the natural disaster (for example, the 1883 eruption of Krakatoa for volcanic natural disasters), (3) mitigation (forecasting, safety, policy, insurance, building considerations, etc.) of the natural disaster, or (4) survival from a natural disaster (either personal stories from the literature or discussion of safety procedures).

   Once the term papers are completed, the department will pull a random sample (30%) and remove all identifying information. A faculty committee will assess the papers using the rubric below. The goal is to have 70% of the sample score as "Good" or "Excellent". The committee will use information from the assessment to determine ways to improve student performance.

   Term Paper Assessment Rubric

   Excellent: The student demonstrates sophisticated critical thinking skills and makes appropriate use of references. The writing is well-written, clear, and concise and provides an advanced understanding of the natural hazard in question.

   Good: The student demonstrates critical thinking skills and makes appropriate use of references. The writing is well-written but is occasionally unclear or not concise. The student provides an adequate understanding of the natural hazard in question.

   Average: The student demonstrates some critical thinking skills but only occasionally makes appropriate use of references. The writing is adequate but is often unclear or contains a number of grammatical errors. The student provides some understanding of the natural hazard in question.

   Below Average: The student demonstrates marginal critical thinking skills and makes poor use of references or fails to use references at all. The writing is unclear and/or contains numerous grammatical errors. The student does not demonstrate an adequate understanding of the natural hazard in question.

7. Please discuss how this course will provide a summative learning experience for students in the development of skills in argumentation and use of evidence.

   GEOG 226 – Our Dangerous Planet will provide students with the opportunity to go beyond the introductory topics of a typical general education type course and analyze the spatial and temporal risk of various natural hazards. In-class assignments will include policy discussions, risk assessments, survival plans, disasters plans, etc. that will enable students to work as a group to apply their classroom knowledge to real-life scenarios. The term paper discussed above will let students immerse themselves in one of the natural hazards discussed over the course of the semester. This course will provide students with the type of applied knowledge that they will be able to draw upon should they ever be confronted with any of these natural disasters.

8. How many sections of this course will your department offer each semester?

   Initially the department will offer one section of GEOG 226. Depending on faculty availability, GEOG 226 and GEOG 227 (Our Vulnerable Planet) may be offered in alternating semesters. If demand permits, more sections may be added.

9. Please attach sample syllabus for the course. PLEASE BE SURE THE PROPOSAL FORM AND THE SYLLABUS ARE IN THE SAME DOCUMENT.

   See below…

GEOG 226: Our Dangerous Planet
(3 credit hours)

Time: Tuesday/Thursday, 9:35 – 10:55 am, EST 328

Instructor: Dr. Greg Goodrich, Associate Professor Office: EST 431
Department of Geography & Geology
Phone: 270 745 5986 Office: 270 745 4555
Email: gregory.goodrich@wku.edu

Office Hours: Tuesday/Thursday 2:20-3:40 pm (or by appointment)

Required Text: *Natural Disasters* by P. L. Abbott
Chapters should be read prior to the discussion of that chapter in class.

Course description: Students in GEOG 226 – Our Dangerous Planet will understand the physical processes behind and the spatial dimension of Earth's natural hazards and disasters with a special emphasis on surviving them. These disasters include tectonic, oceanic, and atmospheric hazards. The semester will conclude with a discussion of how climate change may affect the risk and severity of some of these hazards.

Learning Objectives for Colonnade Program: This course fulfills the Colonnade Program's requirements for the Systems subcategory of the Connections Category. As part of that program, GEOG 226 has the following learning objectives:

Students will demonstrate the ability to:

1) Analyze how systems evolve.
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Learning Objectives for GEOG 226: The course objectives for GEOG 226 are designed to integrate fully with the Colonnade Program. Upon successfully completing GEOG 226, you will be able to:

- Gain an understanding of the geologic and atmospheric processes responsible for natural hazards, including earthquakes, volcanic eruptions, landslides, flooding, tornadoes, hurricanes, drought, and asteroid impacts.
- Gain an understanding of the geographic distribution of natural hazards and the frequency which these hazards become natural disasters.
- Gain an understanding of how society evaluates and confronts the dangers posed by these natural processes from a political, social, and ethical perspective.
- Gain an understanding of how technological innovations allow an increasing human population to monitor, predict, and warn society about natural hazards and impending disasters.

Course Format: Two 80-minute lectures per week.

Class Attendance: Attendance in lecture will not be recorded as part of the course grade but attending lecture is **highly** recommended. Out of fairness to the entire class, I will not loan or make available my lecture notes. If it is necessary that you miss a lecture, please borrow the notes of a fellow student. Afterward, I will be happy to answer additional questions during office hours.

> If a student will miss a class period due to a university-sanctioned activity, Western Kentucky University requires that the student: (1) identify himself/herself prior to missing the class, (2) provide the instructor with a copy of their travel schedule, and (3) discuss with the instructor the procedure to make up missed work.

Academic Honesty: Cheating absolutely will not be tolerated. Students are expected to adhere to the Western Kentucky University Code of Student Conduct.

Please turn off cell phones during class!!

Disability Services: In compliance with university policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Office for Student Disability Services in Downing University Center, A-200. The phone 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.

Student expectations and requirements: Grades will consist of a mid-term exam (30%) and a final exam (30%) based on textbook readings and class discussions, as well as an assortment of homework assignments and in-class projects, and quizzes (15%). Students will also create a research project based on one of the hazards covered in the semester (25%).

Make-up exam policy: You must inform me or the departmental secretary within 36 hours of the scheduled exam that will be/was missed. If you fail to receive approval for a make-up exam within this time frame you will not be allowed a make-up for any reason. A grade of "0" will be given in these instances.

Grades:	A	90-100%	
	B	80-90%	
	C	70-80%	All grades subject to curve at end of semester
	D	60-70%	
	F	<60%	

There will be no extra credit of any kind given on an individual basis in this course.

Required Materials: Bring a #2 pencil and calculator for the exam.

Departmental Drop Policy: The Department of Geography and Geology strictly adheres to the course drop policy found in the Undergraduate and Graduate Catalogs. It is the sole responsibility of individual students to meet the cited deadlines for dropping a course. In exceptional cases, the deadline for schedule changes (dropping a course) may be waived. The successful waiver will require written description of extenuating circumstances and relevant documentation. Poor academic performance, general malaise, or undocumented general stress factors are not considered as legitimate extenuating circumstances.

Any updates to this syllabus, including the course outline, will be given in class

Tentative course outline

Each week the focus will be on a different natural hazard.

- Tornado
- Hurricane
- Avalanche/Snow/Ice/Cold
- Drought/Heat wave
- Volcano
- Earthquake
- Landslide
- Flood
- Lightning
- Tsunami
- Forest Fire
- Paleodisaster
- Climate Change