

**Ogden College of Science and Engineering
Department of Geography and Geology
Proposal to Create a Temporary Course
(Information Item)**

Contact Person: Jennifer Cole, jennifer.cole1@wku.edu, 745-4555

1. Identification of proposed course

- 1.1 Course prefix (subject area) and number: GEOL 301
- 1.2 Course title: Honors: Small, hot, and crowded: Climate change and society
- 1.3 Abbreviated course title: HON: SMALL, HOT & CROWDED
- 1.4 Credit hours: 3
- 1.5 Schedule type: Seminar
- 1.6 Prerequisites: None
- 1.7 Course description:

Climate change is a timely, politically charged, and intensely studied topic. Students in this course will learn how the climate system operates today. Students will explore records of Earth's ancient climate, evaluate evidence for modern warming, and explore impacts based on current predictions. A key goal of this course is that students obtain the scientific background and critical thinking skills required to evaluate and critique media statements and public policy concerning current and future climate change.

2. Rationale

- 2.1 Reason for offering this course on a temporary basis:
This course is being offered in partnership with the Honors College on a trial basis, with the goal of developing a permanent course for the new Colonnade General Education program.
Relationship of the proposed course to courses offered in other academic units:
This course is unique in that it is an interdisciplinary perspective on issues related to past, current, and future climate change and its potential impacts on life and human societies. There is no current course that covers these topics together from this perspective. This course will be cross-listed with GEOG 301 and BIOL 301.

3. Description of proposed course

- 3.1 Course content outline
 - A. The climate system
 - i. Atmospheric composition and circulation
 - ii. Structure and circulation of the ocean
 - iii. Biosphere and feedbacks
 - B. Evidence from Earth's past
 - i. What are proxies? What are the archives of the past?
 - ii. Long term cycles (ice-house, hot-house), abrupt changes (Younger Dryas)

iii. Connections with the past – what can we learn for the present and future?

C. State of the planet – evidence for change in the present

- i. Ice sheets and sea level rise
- ii. Ocean warming, acidification, coral bleaching
- iii. Ecosystem changes, range shifts, season creep

D. Predictions and impacts (flexibility in specific examples based on student interests)

- i. Climate modeling
- ii. Sea level rise – flooding, displacement
- iii. Increased extreme weather events – typhoons, droughts
- iv. Biodiversity loss, ecosystem services – decrease in pollinators
- v. Policies, mitigation – cap & trade, sequestration

3.2 Tentative text(s):

- o Archer, D. (2012) *Global Warming: Understanding the Forecast*, 2nd ed. Wiley. ISBN 978-0470943410.
- o A “popular” book, such as Flannery, T. (2001) *The Weather Makers*. Grove Press. ISBN 978-0802142924., OR Kolbert, E. (2006) *Field Notes from a Catastrophe*. Bloomsbury. ISBN 978-1596911307.

• **Term of Implementation: Spring 2013**

• **Dates of review/approvals:**

Geography and Geology Department 9/5/2012

Ogden College Curriculum Committee 9/6/2012

Ogden College Dean 9/6/12

UCC Chair _____

Provost: _____

Attachment: Course Inventory Form

Office of the Registrar

COURSE INVENTORY FORM

Check One Create New Course
 Temporary Course Offering

1. Has this course previously been offered on a temporary basis? Yes No If yes, indicate the term offered

2. Subject Area Course Number Course Title (as it should appear on the transcript; maximum of 30 letters & spaces)

3. Term for Implementation (e.g., Spring 2012=201210, Fall 2012=201230)

4. Official Course Title

5. Offering Unit (See Table of Code Values.) College Department

6. Credit Hours Fixed Credit Hours: Variable Credit Hours

7. Repeat Limit (See instructions.) Total Maximum Hours (See instructions.)

8. Grading (Check all that apply.) Standard Letter Grading Pass/Fail Only No Grade
 In Progress – IP (Course is intended to span more than one term.)

9. Schedule Type (See Table of Schedule Types.) S

10. Corequisites (courses required to be taken concurrently with this course)

Subject Area	Course Number	Subject Area	Course Number	Subject Area	Course Number
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

11. Equivalent Courses (Include South Campus [C suffix] courses and other equivalent courses.)

Subject Area	Course Number	Subject Area	Course Number	Subject Area	Course Number
<input type="text" value="GEOG"/>	<input type="text" value="301"/>	<input type="text" value="BIOL"/>	<input type="text" value="301"/>	<input type="text"/>	<input type="text"/>

12. Prerequisites (See instructions.)



Subject Area	Course Number	Subject Area	Course Number	Subject Area	Course Number
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

13. Course Attribute Other Honors Course Developmental Course

14. Course Restrictions Include/ Exclude College College Major Major Classification

15. Course Description (Indicate exactly as it should appear in the University Catalog. Include pertinent special information, e.g., course fees, pass/fail grading, field trips, transportation requirements, etc.)

16. Approvals for Temporary Course Only:

Department Head		Date	<input type="text" value="9/6/12"/>
College Dean		Date	<input type="text" value="9/6/12"/>
Graduate Dean		Date	
Provost Office		Date	

Graduate Council _____ Provost _____ Banner Data _____ Evaluate _____

March 2012