Proposal Date: 5 September 2012

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: BIOL 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 is 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 GEOL 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):
- Archer, D. (2012) *Global Warming: Understanding the Forecast*, 2nd ed. Wiley. ISBN 978-0470943410.
- 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:**

Biology Department 9/5/2012

Ogden College Curriculum Committee 9/6/2012

Ogden College Dean 9/6/12 C Stevens

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** BIOL | **Course Number** 301 | **Course Title** (as it should appear on the transcript; maximum of 30 letters & spaces) HONS: SMALL, HOT, & CROWDED

3. **Term for Implementation** (e.g., Spring 2012=201210, Fall 2012=201230) 201310

4. **Official Course Title** HONORS: SMALL, HOT, AND CROWDED: CLIMATE CHANGE AND SOCIETY

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

6. **Credit Hours** Fixed Credit Hours: 3.00 Variable Credit Hours ____ ____ ____

7. **Repeat Limit** (See instructions.) 0 **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

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
GEOG	301	GEOL	301		

12. **Prerequisites** (See instructions.)

Subject Area	Course Number	Subject Area	Course Number	Subject Area	Course Number

☐ Other ____

13. **Course Attribute** ☒ 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.)

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.

16. **Approvals for Temporary Course Only:**

Department Head Bruce Schulte Date 9/6/12
College Dean Cheryl Stevens Date 9/6/12
Graduate Dean ____ Date ____
Provost Office ____ Date ____

Office of the Registrar Use
UCC ____ University Senate ____ CIP ____ Course Desc ____

Graduate Council _____	Provost _____	Banner Data _____	Evaluate_____

March 2012