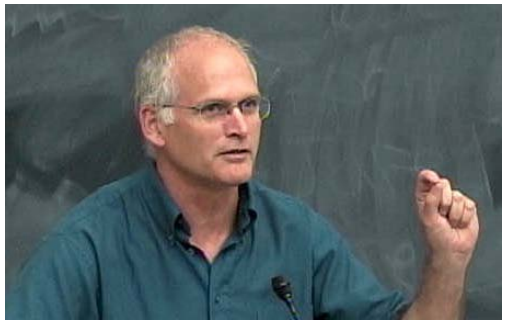
Climate Literacy Ambassadors

A NASA GCCE Project

2/1/10 – 1/31/13

Steve Ackerman



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CLIMATE LITERACY AMBASSADORS

Program Overview

A three-tiered program to support G6-12 Teachers as

Ambassadors of Climate Literacy

1) Workshops

2) On-Line Course

3) Ongoing Community of Climate Change Educators

200 Educator Stipends for tuition reimbursement
40 additional stipends (or iPad loans) for graduates who oversee student research projects

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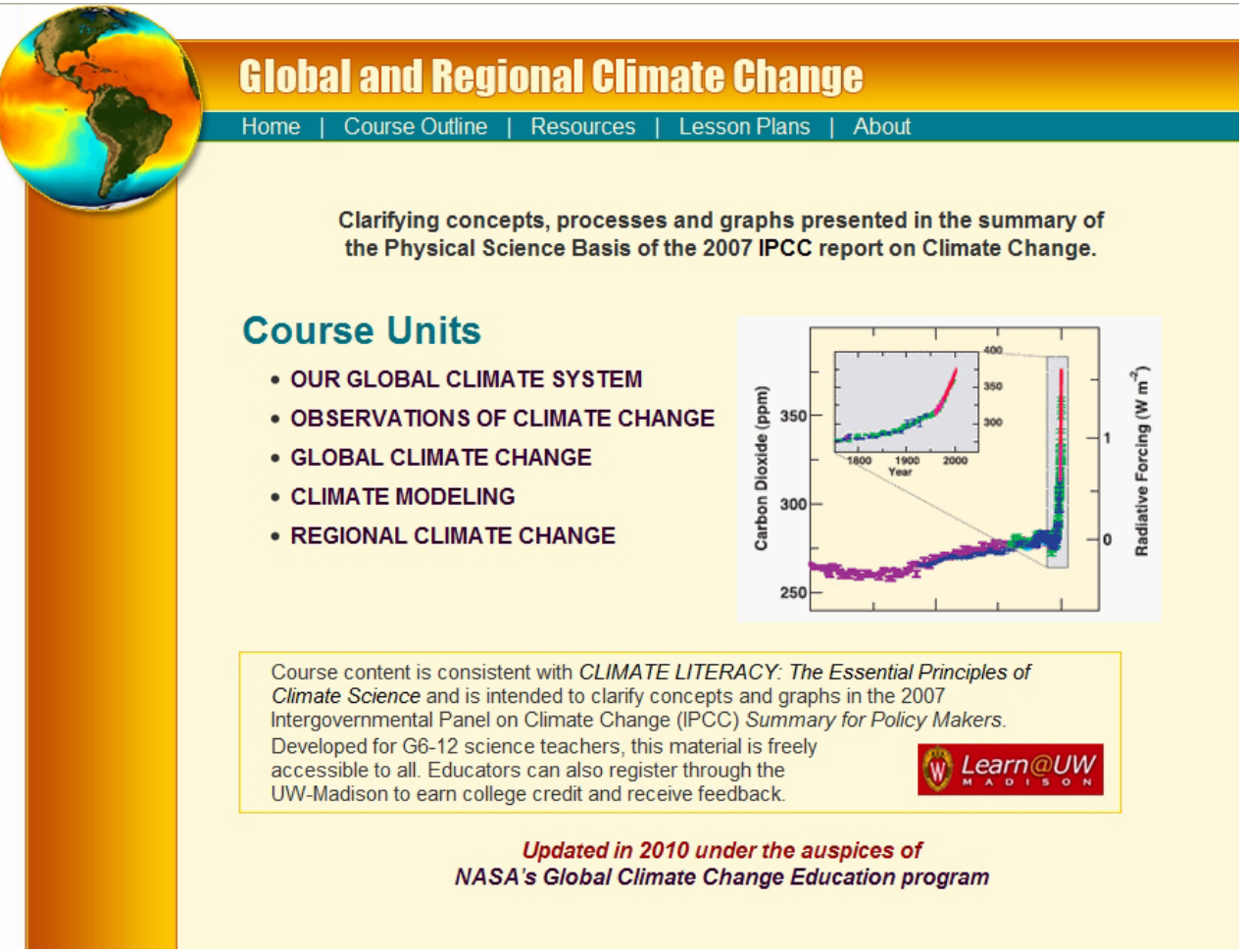
On-Line Curriculum

http://cimss.ssec.wisc.edu/climatechange/



- Funded by UW-Madison
- Based on feedback from 2007 teacher summit
- Developed collaboratively by four departments

(CIMSS, AOS, Geology, CCR)

- Consistent with Climate Literacy Framework
- Clarifies IPCC report
- Beta version debuted 2008
- NASA 2010 GCCE support for updates, revisions & stipends for 200 teachers
- Credit *OR* Certificate

CIMSS

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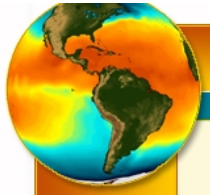
Course Outline



Global and Regional Climate Change

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Login

Course Outline

This course is divided into five units and sixteen lessons. When taking the course for professional development credit, participants are expected to work through two lessons per week.

Our Global Climate System
1) Life and Climate
2) Energy and Climate
3) Climate Regulators

Observations of Climate Change
4) Direct Observations of Recent Climate Change
5) Paleoclimatic Perspectives on Climate (Indirect Observations)
6) Past Climates – Natural Drivers

Global Climate Change
7) Human Influences on Climate
8) Panels, Protocols and a Common Misconception about Ozone
9) Probabilities, Uncertainties and Units used to quantify Climate Change

Climate Modeling and Future Scenarios
10) Models as Tools
11) Feedback Loops
12) Emission Scenarios
13) Projections of Future Changes in Climate

Regional Climate Change
14) Global Projections for Regional Climate Change
15) Climate Change Impacts in the Continental United States
16) Regional Mitigation & Adaptation Responses

Required Assignments
G6-12 teachers taking this course for college credit will be required to submit five lesson plans (1 per unit) relating course content to their grade levels using this **template**.

Anyone who logs on and completes all the activities and quizzes from all 16 lessons can **generate and print a certificate of completion** indicating they spent 20 hours working through this web-based climate course.

5 Units & 16 lessons

- **16 to 25 hours total**
- **LOTS of activities**
- **Educators can earn 1 credit at reduced tuition rate**

**Anyone can log in,
get a username & password
then print a certificate
of completion when finished
(about 20 hours)
- *or*- skip the log in to
access material at anytime**

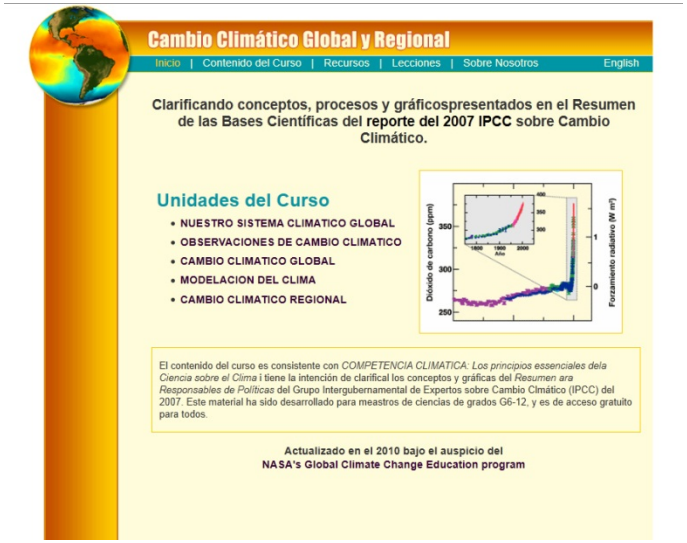
http://cimss.ssec.wisc.edu/climatechange/

Spanish Language Version

In 2012 the CIMSS/UW-Madison Global and Regional Climate Change course for G6-12 science teachers was translated to Spanish and can be accessed from a link on the course main page.

Cambio Climático Global y Regional

http://cimss.ssec.wisc.edu/climatechange/Espanol/



The translation was done by Juan Botella, a native Spanish speaker who teaches high school science in Wisconsin. Due to time constraints, we needed to strip the audio. And some of the activities are still in English, but all the content that explains the science behind the graphs and tables in the 2007 IPCC Summary for Policy Makers is completely translated. And many significant activities ARE available in Spanish such as the Carbon Projections Applet: (http://cimss.ssec.wisc.edu/climatechange/Espanol/system/lesson1/CarbonCycleAppletSpanish) created by Galen A. McKinely & Tommy Jasmin and also translated by Juan.

*This translation and all other efforts related to this project were made possible from **NASA GCCE award number NNX10AB52A***

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CIMSS iPad Library

In 2012 CIMSS launched a new initiative to engage teachers and students in data acquisition and regional climate studies.

The **CIMSS iPad Library** loans iPads to science teachers for an entire school year! The first units were distributed at the **ESIP Teacher Workshop** where teachers also learned about climate-related Apps, including **SatCam**, an application for iOS devices where users collect observations of cloud and surface conditions coordinated with an overpass of the Terra, Aqua, or Suomi NPP satellite.

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