

QUIZ 2 - STUDY GUIDE 2009

Thursday, November 5th, 2009; 11:00am-12:30pm; Walker Memorial

The quiz will cover everything from **Lecture 8** (Global Carbon Cycle on October 6th) through **Lecture 13** (Chemostats/Life Tables on October 29th) including Redfield ratio and limiting factors, ecosystem experiments, geoengineering, secondary productivity, food webs, population growth, chemostats, and life tables. Like Quiz 1, the questions will be primarily short answer, which can be responded to with a few sentences, a sketch with a description, or a brief calculation. We could also ask you to interpret a graph/data or give you a discussion question. **Remember to bring a calculator!**

Use Problem Set 2, the Study Questions, the Lecture Notes, and the Lecture Handouts as a top priority for studying. Make sure you are familiar with the articles that have been assigned.

You are responsible for the following readings:

TEXTBOOK (Smith and Smith)

- Lecture 9: pg. 28-30, pg. 54-56, Chapter 5
- Lecture 11: pg. 491-503, pg. 670-676
- Lecture 12: pg. 741-744, pg. 762-766, pg. 171-180, pg. 181-193

HANDOUTS and ARTICLES: These all contain important material. This list is not all-inclusive but highlights some of the most important readings.

- Contributions to Accelerating Atmospheric CO₂ Growth, Canadell 2007
- Primary Production of the Biosphere, Field 1998
- The Global Carbon Cycle: A Test of Our Knowledge of Earth as a System, Falkowski 2000
- On the Proportions of Organic Derivatives in Sea Water, Redfield 1934
- The Hubbard Brook Ecosystem Study, Likens 2004
- Mixing the Oceans Proposed to Reduce Global Warming, Schiermeier 2007
- Scientists Say Continued Warming Warrants Closer Look at Drastic Fixes, Kintisch 2007
- Ecosystem Experiments, Carpenter 1995
- The Primary Requirements, Beddington 1995
- Primary Production Required to Sustain Global Fisheries, Pauly 1995
- Fishing Down Aquatic Food Webs, Pauly 2000
- Chemostat Handout

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