**Instructor:** Dr. Deborah Metzel e-mail: [deborah.metzel@umb.edu](mailto:deborah.metzel@umb.edu)

**Office Phone:** 617-287-4419

**Office:** Science Building, Room 0012, Environmental, Earth & Ocean Sciences (EEOS) Dept.

**Office Hours:** Tuesdays and Thursdays 2-3:30pm or by appointment. This semester I am only on campus on Tuesdays and Thursdays.

**Textbook:** Kaufman, DG and CM Franz, 2005. *The Biosphere: protecting our global environment*, 4th edition. Kendall Hunt Publishing Company, Dubuque, Iowa. 461 p. ISBN 978-0-7575-5198-7. Additional readings may be required throughout the semester available on my webpage and through links sent to your UMass student email.

**Learning Outcomes for the Nature of Environmental Problems**

During this course you will be introduced to a few key components in which you will familiarize you with the biosphere and the relative nature of environmental problems related to the biosphere from a science and society perspective. These components include:

* the biosphere and environmental science
* ecological principles and applications
* balancing human population, food and energy, and
* the biosphere components of air, water, soil, and biological resources.

**Students are responsible for:**

* All of the material in the required readings and class lectures;
* Attending class and signing in the attendance sheet;
* Obtaining any notes, handouts, assignments that they have missed. Most materials will be emailed to you via your UMass student email address and posted on my website. Hardcopies may be picked up in my office, in S/1/012 on top of the green bookcase. Come in at your convenience.
* Completing assignments on time.

1. Assignments are to be turned in during the class or may be left earlier in my office mailbox in the EEOS Department, S/1/012.

2. **Emailed work is not** accepted. Faxed is OK: 617-287-7474 to my attention.

3. Points will be deducted for papers, exercises, homework turned in after the deadline.

* **Daily participation is expected and** **noted**. **This is the only way to get extra points.**
* **Extra credit is NEVER available. Do not even ask.**
* Students lose points when they do not follow the directions, so be certain that you read and understand the assignment. Contact me as soon as possible if you have questions.
* Meeting with me in plenty of time in advance to discuss any problems you are having with the course or if you need to reschedule an exam.

NOTE: Your understanding or misunderstanding of an assignment, due dates, exam dates, and the like is your responsibility.You should seek clarification well before you have a problem.

**Grading**

The final grade is based on the following:

• Exam 1 25%

• Exam 2 25%

• Exam 3 25%

• Assignments & In-class exercises 25%

• **Class participation—this is the only way to earn extra points.**

The approximate weight of each course requirement is indicated by the number of points possible.

Final grades for the course will be determined by your total accumulated points for the semester and will be based on an approximate grading scale of:

> 87% = A > 82% = B+ > 72% = C+ > 62% = D+

> 85% = A- > 77% = B > 67% = C > 57% = D

> 75% = B- > 65% = C- > 55% = D-

< 55% = F

**Exams**

• You must use number #2 pencils since ink is not readable by the scanners.

• A study guide will be distributed and posted approximately one week before the exam.

Make-up exams will be given only to students with legitimate excuses and who have discussed their situation with me before the scheduled exam date. I may choose to give you an oral make-up exam.

**Accommodations:**

Section 504 of the Americans with Disabilities Act of 1990 offers guidelines for curriculum modifications and adaptations for students with documented disabilities. If applicable, students may obtain adaptation recommendations from the Ross Center for Disability Services, M-1-401, (617-287-7430). The student must present these recommendations and discuss them with each professor within a reasonable period, preferably by the end of Drop/Add period.

**Student Conduct:**

Students are required to adhere to the University Policy on Academic Standards and Cheating, to the University Statement on Plagiarism and the Documentation of Written Work, and to the Code of Student Conduct as delineated in the University Catalog and Student Handbook. The Code is available online at: <http://www.umb.edu/student_services/student_rights/code_conduct.html>

**Other notes**

Exam 1 will include questions on the article at this url: <http://www.nytimes.com/2010/08/02/education/02cheat.html?pagewanted=2&_r=3&hpw>

and on the handout prepared by Dr. John Duff entitled, “New media doesn’t change old rules”.

Take advantage of the [Reading, Writing, and Study Strategies Center](http://www.academicsupport.umb.edu/contact/email.php?id=83) in the Campus Center.

**Syllabus, Jan. 25, 2011**

**This is a tentative schedule and you will be notified if changes are made to this schedule.**

Other readings for which you will be responsible may be assigned during the semester.

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| **Week** | **Dates** | **Topic and Readings** |
| 1 | 1/25-1/27 | Introduction: Syllabus and The state of the biosphere Syllabus and Chapter 1 |
| 2 | 2/1-2/3 | Social Factors; Ecosystem Structure Chapters 2 & 3 |
| 3 | 2/8-2/10 | Ecosystem Structure; Ecosystem Function Chapter 3 & 4 |
| 4 | 2/15-2/17 | Ecosystem Development and Dynamic Equilibrium Chapter 5 |
| 5 | 2/22-2/24 | Ecosystem Degradation Chapter 6  **Feb. 24, Exam 1** |
| 6 | 3/1-3/3 | Human Population Dynamics Chapter 7 |
| 7 | 3/8-3/10 | Managing Human Population Growth Chapter 8 |
| 8 | 3/22-3/24 | Food Resources, Hunger, and Poverty Chapter 9 |
| 9 | 3/29-3/31 | Energy: Fossil Fuels and Alternative Sources Chapters 1**0** & 11 |
| 10 | 4/5-4/7 | Air Resources Chapter 12  April 7, Exam 2  Also, Pass/Fail Deadline and Withdrawal Deadline |
| 11 | 4/12-4/14 | Water Resources Chapter 13 |
| 12 | 4/19-4/21 | Soil Resources Chapter 14 |
| 13 | 4/26-4/28 | Biological Resources Chapter 15 |
| 14 | 5/3-5/5 | Unrealized Resources: Solids and Hazardous Waste Chapter 20 |
| 15 | 5/10 | **Topic to be announced.** |
| **Final (Exam 3) - Date & time to be announced.** | | |