**Ecosystem Services: A Graduate Seminar**  
Zoology 955 and 956, Spring Semester 2009  
Meets Fridays, 0955-1150 a.m. in B139 Van Vleck  

**UPDATED 2 FEBRUARY 2009**

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<table>
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<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>1</td>
<td>23 Jan</td>
<td>Introduction and overview; distribute syllabus, review expectations and grading; sign ups for discussion leadership</td>
<td>None</td>
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| 2    | 30 Jan| **Foundations** (Carpenter)                                             | MA 2005 pp. 26-102  
Mooney & Ehrlich 1997                                                   |
| 3    | 6 Feb | **Why a Utilitarian Approach?** (Vander Zanden and Turner)              | Goulder & Kennedy 1997  
Maguire & Justus 2008  
McCauley 2006  
Reid et al. 2006                                                        |
| 4    | 13 Feb| **Introduction to Yahara Watershed Issues** (Carpenter, first half of class) + Brainstorming to identify ecosystem services in the watershed and potential project topics and to form groups. Project guidelines will be distributed | Brauman et al. 2007  
Carpenter et al. 2006  
Chan et al. 2006                                                         |
| 5    | 20 Feb| **Tradeoffs of Ecosystem Services** (Lewis)                             | Naidoo et al. 2008  
Nelson et al. 2008  
Rodriguez et al. 2006                                                   |
| 6    | 27 Feb| **Valuation** (Provencher)                                              | Ecosystem Valuation Website*  
Costanza et al. 1998  
Kelman 1981  
Norgaard et al. 1998  
Toman 1998  
Turner et al. 1998                                                       |
<p>| 7    | 6 Mar | <strong>Yahara Legacy Project</strong> (Lorman, first half of class) + Group work time in preparation for the presentations next week. | None                                                                    |
| 8    | 13 Mar| <strong>Presentation of Project Proposals</strong> (One presentation/group)          | None                                                                    |</p>
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<th>20 Mar</th>
<th><strong>SPRING BREAK</strong></th>
<th>NO CLASS</th>
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| 10 | 27 Mar | **Tradeoffs Across Time** (Student-led discussion + group time)  
• Eric Wood  
• Caitlynn Nemec  
• Stacie Robinson  
• Ruth Hearly | Dasgupta 2008  
Nordhaus 2008  
Stern & Taylor 2008 |
| 11 | 3 Apr  | **Resilience and Vulnerability of Ecosystem Services in a Changing World** (Student-led discussion + group time)  
• Jereme Gaeta  
• Matt Van de Bogert  
• Matt Kornis  
• Amy Kamarainen | Alcamo et al. 2007  
Bennett and Balvanera 2007  
Schroter et al. 2005 |
| 12 | 10 Apr | **Biofuels and Ecosystem Services of Agricultural Watersheds** (Student-led discussion + group time)  
• Tim Kuhman  
• Kelly Logan  
• Emma Schroeder  
• Graham MacDonald | Donner & Kucharik 2008  
Fargione et al. 2008  
Naylor et al. 2008  
Searchinger et al. 2008 |
| 13 | 17 Apr | **Policy Instruments for Managing Ecosystem Services – What Works and What Fails?** (Student-led discussion + group time)  
• Van Butsic  
• Tess Killpack  
• Emily Kara  
• Jacob Usinowicz | Andam et al. 2008  
Costello et al. 2008; also see letters to the editor and replies, *Science* 16 Jan 2009  
Jack et al. 2008 |
| 14 | 24 Apr | **Managing Ecosystem Services: How can more effective institutions be designed and implemented?** (Student-led discussion + group time)  
• Tim Asplund  
• Nina Mukherji  
• Zachary Schuster  
• Chad Heimerl | Agrawal 2002  
Ostrom 2007, 2008 |
| 15 | 1 May  | **Gaps and Frontiers** (Student-led discussion + group time)  
• Mirna Santana  
• Hiroko Yoshida | Carpenter et al. 2009  
Daily et al. 2009 |
16 | 8 May | **Project Presentations** (One presentation/group; reports due during finals) | None

*Ecosystem valuation website: http://www.ecosystemvaluation.org/essentials.htm

**Reading List (alphabetic by author)**


Toman Michael, SPECIAL SECTION: FORUM ON VALUATION OF ECOSYSTEM SERVICES: Why not to calculate the value of the world's ecosystem services and natural capital, Ecological Economics, Volume 25, Issue 1, April 1998, Pages 57-60

Turner RK, W.N Adger, R Brouwer, Ecosystem services value, research needs, and policy relevance: a commentary, Ecological Economics, Volume 25, Issue 1, April 1998, Pages 61-65