**TEXT:** "Green From the Ground Up: Sustainable, Healthy and Energy-Efficient Home Construction (Builders Guide)"

By David Johnston and Scott Gibson; published by The Taunton Press, copyright 2008; $24.95 list price.

ISBN # 978-1-56158-973-9

**NOTE:** Students are responsible for getting copies of the textbook on-line from Amazon.com or other source; books will NOT be available from the Cabrillo College bookstore.

**SUPPORTING TEXTS:**

**RECOMMENDED TOOLS:**
- Calculator
- 3-ring binder for Class notebook

**CLASS SCHEDULE**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPIC/COURSE ACTIVITIES LECTURES &amp; DISCUSSIONS</th>
<th>HOMEWORK &amp; Reading (NOTE: ASSIGNMENTS DUE AT NEXT CLASS MTG)</th>
<th>GET TEXTBOOKS</th>
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<tbody>
<tr>
<td>Feb 10</td>
<td>Introductions, Course Syllabus/Website, Intro to textbooks/class topics. Class &quot;Notebook&quot; review Class website review <a href="http://www.cabrillo.edu/~smurphy/CEM162">http://www.cabrillo.edu/~smurphy/CEM162</a> SMALL GROUP set-up (6-8 people MAXIMUM per group) Introduction to Sustainable Construction</td>
<td><strong>GET TEXTBOOKS</strong> Find article in magazine, newspaper or off internet on &quot;ECONOMIC STIMULUS: Effect on Sustainable Construction&quot;. Write a single page summary article (CURRENT EVENT ARTICLE #1) and prepare to discuss at next class.</td>
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<tr>
<td>Date</td>
<td>Topic</td>
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<td>Feb 17</td>
<td>SMALL GROUP DISCUSSION of Current Event Article</td>
<td>ARTICLE REVIEW #1 DUE: Read Textbook- Ch 1, 2 and Ch 3 (p 5 - 64) of textbook</td>
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<td>Textbook Review</td>
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<td>KEY REGISTRATION NOTES:</td>
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<td>• must be registered for course by Feb 21st</td>
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<td>• Last day to drop and get full refund- Feb 21st</td>
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<td>Feb 24</td>
<td>Whole building design, site selection, passive solar fundamentals,</td>
<td>Same as Feb 17</td>
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<td></td>
<td>building envelope components</td>
<td>Also read Ch 7 in textbook</td>
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<td>STUDY FOR QUIZ</td>
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<td>Mar 3</td>
<td>Site selection, passive solar, building envelope components (cont.)</td>
<td>Review Green Point</td>
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<td>Checklists for “City of Santa Cruz” and “LEED for Homes” for class discussion</td>
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<td>QUIZ #1 (text Chapters 1 -3 and 7; class lecture notes)</td>
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<td>KEY REGISTRATION NOTE:</td>
<td>Last day to drop without “W” on record- Mar 7</td>
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<td>Mar 10</td>
<td>Building/Home &quot;GREEN&quot; Rating Systems:</td>
<td>Read Ch 4, 5, 6 and 15 of text.</td>
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<td>• City of Santa Cruz/Build-it-Green Guidelines</td>
<td>1 page summary of newspaper/periodical article (Current Event Article #2)</td>
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<td>• LEED for Homes</td>
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<td>GUEST SPEAKERS:</td>
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<td>John Ancic &amp; Joe Fullerton/City of Santa Cruz</td>
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<td>&quot;Green Building Program&quot;</td>
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<td>KEY REGISTRATION NOTE:</td>
<td>Last day to take course CR/NC- Mar 14th</td>
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<td>Mar 17</td>
<td>SMALL GROUP DISCUSSION</td>
<td>ARTICLE REVIEW #2 DUE: Read Ch 14 of text.</td>
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<td>Alternative construction methods/framing systems/sustainable building</td>
<td>STUDY FOR QUIZ</td>
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<td>construction materials:</td>
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<td>• Finish materials</td>
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<td>• Certified wood</td>
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<td>GUEST SPEAKER: Michele Landegger/BOA Construction</td>
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<td>Mar 24</td>
<td>Indoor Air Quality, moisture control, ventilation systems.</td>
<td>1 page summary of newspaper/periodical article (Current Event Article #3)</td>
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<td>QUIZ #2 (text Chapters 4, 5, 6 and 15; class lecture notes)</td>
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<td>Date</td>
<td>Event Description</td>
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| Mar 31   | SMALL GROUP DISCUSSION  
**Home Performance Contracting**  
**GUEST SPEAKER:** Mark Van Meter/Van Meter Construction  
**ARTICLE REVIEW #3 DUE**  
**ARTICLE REVIEW #3 DUE** | | |
| Apr 7    | California Title 24 Standards/HERS rating guidelines  
**GUEST SPEAKER:** Sharon Block/Block Energy Design  
**ARTICLE REVIEW #3 DUE** | | |
| Apr 14   | SPRING BREAK  
Read Ch 10 of textbook  
1 page summary of newspaper/periodical article  
(Current Event Article #4) | | |
| Apr 21   | SMALL GROUP DISCUSSION  
**Electrical/lighting systems efficiency, daylighting, electrical power metering**  
**GUEST SPEAKER:** Yvonne Ross; Kitchen/Bath Lighting system demo  
**ARTICLE REVIEW #4 DUE**  
**ARTICLE REVIEW #4 DUE**  
**STUDY FOR QUIZ** | | |
| Apr 28   | Building/home heating and cooling systems  
QUIZ #3 (text Ch 10 and 14; class lecture notes)  
Read Ch 8 and 16 of textbook | | |
| May 5    | Water usage, plumbing fixture efficiency, appliance efficiency  
**GUEST SPEAKER:** Robert Lenney/Rain Harvesting Systems  
**KEY REGISTRATION NOTE:**  
Last day to withdraw from course- May 9th  
Read Ch 13 of textbook | | |
| May 12   | Solar Thermal and radiant floor heating systems, Tankless hot water heating systems  
QUIZ #4 (text Ch 8 and 9; class lecture notes)  
Small group work on final project  
1 page summary of newspaper/periodical article  
(Current Event Article #5) | | |
| May 19   | SMALL GROUP DISCUSSION  
**Economic analysis, utility incentive programs for Green Building.**  
**GUEST SPEAKERS:** Jack McDermott/PG & E  
**ARTICLE REVIEW #5 DUE**  
**ARTICLE REVIEW #5 DUE**  
**STUDY FOR QUIZ** | | |
May 26 | Alternative/renewable energy systems, solar photovoltaic systems, “California Solar Initiative.”  
**GUEST SPEAKER:** Mike Arenson/Arenson Solar  
QUIZ #5 (text Ch 13; class lecture notes)  
| Independent group work on presentations.

June 2 | **SMALL GROUP PRESENTATIONS**  
Each SMALL GROUP to present **20 minute MAXIMUM** "Sustainability/Green Building" report on residential/light commercial building retrofit.

**EXAMS & GRADES:**
Grades are based on the following:
- Attendance/Participation- 5%
- Class Notebooks- 10%
- Current Event Articles- 25%
- Quizzes- 40%
- Final Group Presentation- 20%

If you desire the credit/no-credit option rather than a letter grade, the deadline for doing this is **March 14, 2009**.

**CREDIT/NO CREDIT OPTION:**
For this option, students shall have to complete the following MINIMUM guidelines to receive a CREDIT grade:
- Attendance/participation at 12 out of the 16 class sessions
- Achieve score of 70% or better on class notebook
- Achieve average score of 70% on all quizzes
- Achieve score of 70% on final class project
- Makeup assignments can be turned in for “extra credit” to offset deficiencies in any of the above 4 grading categories.

**EXTRA CREDIT OPPORTUNITIES:**
Students can earn extra points by completing the following work:
1. Additional “Current Event” articles
2. Independent Field Trips to Sustainable Construction project of your choice. Students are required to have photograph taken of them at the site and to turn in a “Top 10 List” of sustainable construction attributes of the site.

**STUDENTS WITH DISABILITIES:**
I encourage students with disabilities to explain their individual needs to me during office hours (listed above). Please bring verification of your disability (from the Learning Skills or DSP&S office and counselor and/or specialist’s recommendations) so that I may assist you in accommodating your needs.