Welcome to AGEC 350

A. Pick up Handouts
B. Complete Environmental Economics Survey

C. Complete Computer Sign-up Form
   1. UIN
   2. Last Name
   3. Name you like to be called
      (e.g. Joe instead of Joseph)
   4. Preferred e-mail address
   5. Department
   6. Gender (M or F)
   7. Special Seating needs
      (e.g., need to sit in front)
   8. How many economics classes
      have you taken?
   9. How many environmental
      sciences classes have you
      taken?
   10. Do you consider yourself an
       environmentalist?

The steps to learning

1. Acquiring basic facts & concepts
2. Asking questions clarifying
3. “Processing” concepts by working with them
4. Applying concepts to new problems

The steps to learning

1. Acquiring basic facts & concepts
2. "Processing” concepts by working with them
3. Applying concepts to new problems
4. Asking questions & obtaining clarification

Working with 1 or 2 people around you
For each of these rank it from 1 – 5

1. Can easily be done
   Much better in a group
2. Can easily be done
   Much better in a group
3. Can easily be done
   Much better in a group
4. Can easily be done
   Much better in a group
5. Can easily be done
   Much better in a group
The steps to learning

1. Acquiring basic facts & concepts
2. "Processing" concepts by working with them
3. Applying concepts to new problems
4. Asking questions & obtaining clarification

Now, order the steps from lowest score to highest:

1. Can easily be done alone
5. Much better in a group environment

Team-Based Learning

http://www.utexas.edu/academic/ctl/largeclasses/#tbl

Two reasons TBL works

1. Bloom’s taxonomy
Two reasons TBL works

1. Bloom’s taxonomy

   Outside of class
   Tested on RATs

   Revised Bloom’s Taxonomy

Two reasons TBL works

1. Bloom’s taxonomy

   In class teamwork
   Tested on exams

   Outside of class
   Tested on RATs

   Revised Bloom’s Taxonomy

Two reasons TBL works

1. Bloom’s taxonomy

2. Neuroplasticity
   - the brain changes throughout your life
   - changes in neural pathways and synapses
     which are due to changes in behavior, environment and neural processes...
Two reasons TBL works

1. Bloom’s taxonomy
2. Neuroplasticity
   - the brain changes throughout life
   - changes in neural pathways and synapses which are due to changes in behavior, environment and neural processes...

Bottom line: Learning is most effective when you work with the concepts.
TBL exercises the brain.

Grade Components

<table>
<thead>
<tr>
<th>Evaluation Component</th>
<th>Number</th>
<th>% of grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Readiness Assessment Tests</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Team Readiness Assessment Tests (tRATs)</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>tRAT bonus points</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Highest Score: ½ percentage point final grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Highest Score: ¼ percentage point final grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer evaluation of team members</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Individual short homeworks and team in-class assignments</td>
<td>many</td>
<td>15</td>
</tr>
<tr>
<td>Midterm examination</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Final examination</td>
<td>1</td>
<td>30</td>
</tr>
</tbody>
</table>

Averages for last semester

<table>
<thead>
<tr>
<th>Component</th>
<th>Average Spring 2015</th>
<th>Average Fall 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>iRATs</td>
<td>99.7%</td>
<td>62.4%</td>
</tr>
<tr>
<td>tRATs</td>
<td>90.3%</td>
<td>88.9%</td>
</tr>
<tr>
<td>RAT bonuses</td>
<td>1.7 percentage points</td>
<td>2.8 percentage points</td>
</tr>
<tr>
<td>Peer Evaluations (note: 0 given if not completed)</td>
<td>86.0%</td>
<td>80.9%</td>
</tr>
<tr>
<td>Teamwork and homeworks</td>
<td>82.0%</td>
<td>80.6%</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>82.0%</td>
<td>77.3%</td>
</tr>
<tr>
<td>Final exam</td>
<td>91.7%</td>
<td>79.8%</td>
</tr>
<tr>
<td>Final grade</td>
<td>82.4%</td>
<td>80.6%</td>
</tr>
</tbody>
</table>
Historic Grade Distributions

Last Time’s Grade Distribution

Culture of the classroom

<table>
<thead>
<tr>
<th>My promises to you</th>
<th>What I ask in return</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Be prepared</td>
<td>• Be a good teammate</td>
</tr>
<tr>
<td>• Be fair and consistent</td>
<td>• Participate</td>
</tr>
<tr>
<td>• Be accessible</td>
<td>• Arrive on time</td>
</tr>
<tr>
<td>• Be understanding</td>
<td>• Turn off phones &amp; devices</td>
</tr>
<tr>
<td>• Be open</td>
<td>• No distracting activities:</td>
</tr>
<tr>
<td>• Be clear on priorities</td>
<td>• Texting, browsing, reading the paper, etc.</td>
</tr>
<tr>
<td>• Give ample time</td>
<td>• Inform me if leaving early</td>
</tr>
<tr>
<td>• Remind you of due dates</td>
<td>• Communicate professionally</td>
</tr>
<tr>
<td>• Respect your opinions</td>
<td><strong>Be respectful</strong></td>
</tr>
</tbody>
</table>
Do students like TBL?

Some do

"The group teaching method is excellent. This was by far my favorite class setup this semester and one of the best of my college career."

And some don’t

"Team-based learning is a JOKE! I do not believe that team based learning contributes whatsoever to this class."

2015 comments (negative)

"Having to teach yourself before a quiz is a load of horse cr__. I am paying a bunch of money for you to teach me, not for me to teach myself."

"This class was very unorganized and I dreaded coming every day."

"The prof. words questions very difficultly and makes things more confusing than they should be."

2015 comments (positive)

"I like the teamwork aspect of learning and working as a group. I also enjoyed the team quizzes directly after the iRATs."

"I liked the videos. It is nice to be able to re-watch and pause during the more dense lessons."
Some other comments

- "The professor should be careful of bias when teaching students. I felt encouraged to agree with the professor on opinion based questions rather than state my true opinion."
- "Please stop shouting so much and loudly banging on things or clapping super loud. It’s very startling."
- "There should be multiple choice tests instead of paragraph."
- "Does the prof have any other shoes than that pair of sandals?"

Now: Environmental Economics

An idea map for AGEC 350
Three Gorges Dam, Yangtze River, China
Completed in 2006.
Fully operable in 2008
Cost: $26 billion
The End