EnEd 5325:
Sustainability Issues Investigation
Spring Semester, 2014
2 credits

Ken's Home

Overview:

Assignments:
Refer to each class meeting on the syllabus.

Moodle website

Grades

COURSE RESOURCES:

Peer Grading Score Sheet

Course Syllabus

Peer Grading Criteria

Presentation Score Sheet

Guidelines to Issues Resolution

Student's Role in Structured Conflict

Presentation Criteria

EnEd 5325

Jan. 17: 12:30-4:30 pm (WRELC)
Jan. 31: 12:30-4:30 pm (WRELC)
Feb. 14: 12:30 - 4:30 pm (WRELC)
Feb. 28: 12:30 - 4:30 pm (WRELC)
March 14: 12:30 - 4:30 pm (WRELC)
Instructor:

<table>
<thead>
<tr>
<th>Ken Gilbertson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Environmental Education</td>
</tr>
<tr>
<td>123 SpHC</td>
</tr>
<tr>
<td>218-726-6258</td>
</tr>
<tr>
<td>email: <a href="mailto:kgilbert@d.umn.edu">kgilbert@d.umn.edu</a></td>
</tr>
<tr>
<td>url: <a href="http://www.d.umn.edu/~kgilbert">www.d.umn.edu/~kgilbert</a></td>
</tr>
</tbody>
</table>

**Goal:** To learn how to effectively study a sustainability issue to a point of resolution. Guiding Theory: Interdependence

**Purpose:** The purpose of this course is to study an actual sustainability issue that can be reasonably resolved within the scope of this course (fifteen weeks). I want you to learn how to select an issue; build an effective team of investigators through your classmates; and, study the issue through to the point of making recommendations that will actually influence the resolution of the issue.

Ultimately, it is through this learning process and the method of experiential education that you will learn how to teach your future students about sustainability issues and problem solving that lead to sustainability both in
sustainability issues and problem solving that lead to sustainability both in management and in education of the topic your group will be studying.

**Objectives:**
From this course, you will learn:

**Methodology:**
1. Experiential learning through investigating a perceived sustainability issue
2. Cooperative learning (Johnson & Johnson)
3. Student-centered learning
4. Presentation (teaching) to a professional adult audience

**Issue Investigation:**
1. To assess a perceived issue that is resolvable.
2. To build a team of investigators with differing points of view, knowledge, and experience.
3. How to systematically analyze, investigate, interview, and recommend solutions to an environmental issue that includes principles of sustainability (ecological; economical; and, social).
4. Differentiate between and effectively use social, political, and technical science domains in investigating an issue.
5. How to effectively present recommendations of an actual issue to a group of appropriate community citizens toward resolution of the issue being investigated.
6. Ultimately, it is through this process that I want you to learn how to apply the skills, knowledge, and experience to better teach about sustainability issues - prevention, identification, assessment, and mitigation. These skills are valuable when teaching about the natural environment. This is a course where sustainability practices are applied - including management and education.

**Format:**
This class is designed to have minimal classroom instruction from the instructor and optimal field investigation by you. We will meet six times throughout the term. The first session will be a large group meeting (UMD Grad's and WRELC EE Cert. students) where the tone, expectations, and guidelines of the course will be set.

The next two-three meetings will be small group where I will meet with WRELC students separately from the UMD Grad students. These middle sessions will be update sessions by team members to colleagues. The updates should be approached as a dry run for a formal presentation. The final meeting will be the final formal presentations of each groups' findings and recommendations for resolution pertinent to the issue that group investigated throughout the term. This final presentation will include actual constituents who are involved in the issue.

**Schedule:**
**Jan. 17:** 12:30 - 4:30 pm at WRELC

Purpose & Expectations; Guidelines for issues investigation; Issues Triage; Group selection; Issues identified. We will also determine class meeting
times and dates for UMD Grad students.

**How to develop a Research Question**

Jan. 31: 1 - 4:30 pm at WRELC (UMD: Feb 11 2-4, SpHC 9) (Tentative schedule)
The week of Feb 12 - UMD Students will meet and present separately on the UMD campus.

This session will be an update - presented formally.
The topics to be presented will be:
1. **Identification of the issue** (What is the specific issue? e.g. "Expansion of the parking lot and building at Walmart")

2. **Purpose of the issue.** (Purpose of the issue. e.g. "The purpose of the perceived issue is to investigate the potential effects of stormwater run-off from the expanded impervious surface of the parking lot.")

3. **Research Question** (e.g. "What is the efficiency of the windows in the Education building?"; "To what extent do they retain/reflect heat?")

4. **Questions stated to guide data collection.** (What are questions to ask to investigate the issue? e.g. what permits are needed? what specific area is impacted? what does the surrounding - adjacent - areas look like? what information do we need to determine if this is an environmental issue?)

Feb. 14: 12:30 - 4:30 pm at WRELC
Building upon the prior session, this meeting will once again be a formal presentation by each group covering the following topics:

5. **Intended Methods of obtaining your data**: Describe the methods you intend to use to collect your information (data) before you begin to collect it.

   (interview - phone or personal; survey; literature review; photography; How do you intend to determine who you will interview or where you will find your literature or how you will measure (collect) your data?)

**Do not** begin to collect any data until your methods of collection have been determined and I have approved them.

6. **Collect and appraise data.**

   What information is needed (a priori) to assess the extent and impact of the issue? Keep in mind the sequence of your methods.

   What do you need to know before you can/should go on to the next step (e.g. you need to have background information on the topic before you can begin to...
you need to know background information on the topic before you can begin to interview people about the topic?

Feb. 28: 12:30-4:40 pm at WRELC

7. What are the impacts? (What will happen if the issue continues? What will happen if it is stopped?)

8. Recommend solutions. Based on the impacts (Environmental - ecological; Economical, & Social). Your solutions should be sustainable - both from a management perspective and describing how the sustainable resolution should be taught to students.

9. Select criteria to evaluate impacts. (How will you know, specifically, what the impacts will be? Establish criteria to be able to tell the difference.)

10. Confirm who the constituents are and present list of who will be invited to the final presentation. Included with this list will be the stated means of how the constituents will be invited to the final presentation.

The final steps of choosing the best solution will be discussed with Joe Walewski and Ken via independent consultations.

March 14: 12:30 -4:30 pm WRELC
Final presentation of group projects by WRELC students where each group provides a 1-hour presentation.

This is a dry-run of the Final Presentation.

ALL students need to attend this session.

Final presentation and/or preparation. Each group should plan a 1-hour presentation that includes question and answer interaction from the audience.

April 4: 12:30 -4:30 pm WRELC
This will be both a final presentation and a reflection of the course relative to the application of the course experience into a sustainability educational learning context.

Assignments:
1) For each class presentation, each group will provide an oral presentation that includes the most appropriate visual aids. Most often, PowerPoint is the most effective visual aid.

2) Also for each class presentation, each group must present a written paper that includes the material to be presented for that class period.

All papers must be:
Typed: Double spaced and in APA format (using .doc format).
Typed: Double spaced and in APA format (using .doc format).
Include (as appropriate for the sequence of delivery):

1. Cover page
2. Table of Contents
3. Group members
4. Introduction - What is the context of the class?; What is the issue?; What are you going to present today?
   - Purpose and Research Question
5. Problem identification and definition
6. Data collection methods
7. Data results
8. Criteria to evaluate data
   - To what extent is the issue valid? (Economically, Socially, & Ecologically)
9. Possible solutions
10. Recommended solution (Economically, Socially, & Ecologically)
11. Recommendations to evaluate solution effects
12. References

3) Each group member will present peer evaluations and a self-evaluation for work up to that point in the project. (10 points each)
Click on the "Peer Grading Criteria" icon on the sidebar.
Please present each group members' evaluation on a separate sheet. It should be typed and include your name.

4) Final synopsis of what you gained in this course relative to investigating a sustainability issue and how you are prepared to teach your students about sustainability issues. This should be approximately a 4-6 typed pages. (20 pts.)

Grading:
Grades will be evaluated on the following criteria:
1) Each preliminary presentation: 50 points = 200 pts.

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Content (accuracy and thoroughness):</td>
<td>50% (25 pts.)</td>
</tr>
<tr>
<td>• Presentation (written):</td>
<td>15% (7.5)</td>
</tr>
<tr>
<td>• Presentation (oral):</td>
<td>20% (10)</td>
</tr>
<tr>
<td>• Sources (references)</td>
<td>15% (7.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Paper</td>
<td>100 pts (50 pts oral presentation; 50 pts written paper)</td>
</tr>
<tr>
<td>Participation &amp; Preparation</td>
<td>30 pts (5 pts/class x 6 meetings)</td>
</tr>
</tbody>
</table>

Total points 430

Grade Scale:
A=90%
B=80%
C=70%
D=60%

The University of Minnesota is an equal opportunity educator and employer.
© 1999-2000 University of Minnesota Duluth