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| **UNIVERSITY OF OREGON SCHOOL OF LAW**  **CONFLICT AND DISPUTE RESOLUTION PROGRAM** |

version 9/11/2019

**CRES 660: ENVIRONMENTAL CONFLICT RESOLUTION**

**FALL 2019**

Class Meetings: Fridays, 9:00-12:50 (4 credits)

Location: Knight Law Center 282

Instructor: Todd Jarvis

Office Hours: By appointment

E-mail: toddj@uoregon.edu

**COURSE DESCRIPTION**

“Wicked” problems are defined as having uncertain boundaries, defy absolute solutions, and can be a symptom of larger problems. The focus of the course is to build confidence in addressing wicked problems through methods used in environmental conflict resolution. We will analyze case studies, as well as practicing negotiation, facilitation and mediation skills. Role plays will focus on regional and international land management, climate change, and related water issues. One simulation will be conducted online. The course includes case studies, group work, a self-guided field trip, and many simulations to illustrate concepts considered in course sessions and readings. Those concepts include conflict assessment, negotiation, decision-making, adaptive management, collaboration, and public participation in many different environmental, natural resource, and water conflict situations.

We will also explore what it takes to get into the “business” of tackling wicked problems through environmental conflict resolution by examining anticipated billables, insurance, trends, etc. We will explore questions such as do lawyers address environmental conflict resolution the same way as other types of practitioners?

**LEARNING OBJECTIVES**  
As a result of taking this course, the student will have

* increased knowledge about the business of environmental conflict resolution;
* increased understanding of multi-faceted conflicts over natural resources;
* increased skills through practice and critique;
* increased understanding of stakeholder assessments and collaboratives and how these directly inform practical next steps in managing disputes; and
* increased understanding of different negotiation frameworks.

**COURSE TEXTS**

**Required:**

* Moore, L. (2013) *Common Ground on Hostile Turf: Stories from an Environmental Mediator*, Paperback, Island Press.

ISBN 978-1-61091-411-6

* Clarke, T. and T.R. Peterson (2015) *Environmental Conflict Management*, Paperback, SAGE Publications, Inc.

ISBN 978-1483303031

* Lederach, J.P. (2003) *The Little Book of Conflict Transformation*, Paperback, Good Books. Abridged Version available online:

<http://www.beyondintractability.org/essay/transformation/>

* Canvas – Readings outside of the textbooks will be posted here.

**Optional but highly recommended**:

* Brown, V.A., Harris, J.A., Russell, J. (2010) *Tackling Wicked Problems: Through the Transdisciplinary Imagination*, Paperback, Earthscan.

ISBN 978-1-84407-925-4

**COURSE POLICIES**

**Accessible Education for All Students**: The University of Oregon works to ensure inclusive learning environments for all students. We recognize that students bring a variety of learning styles to the course, and that some learning styles may require adjustment to course structure. We are happy to talk with you about such adjustments. Please be in touch with the professor if there are aspects of the instruction or design of this course that result in barriers to your participation as a result of learning style or diagnosed disability. If this course involves anonymous grading, please contact Assistant Dean of Student Affairs, Nicole Commissiong, nrc@uoregon.edu, for information on accommodations. For more information, you are also encouraged to contact the Accessible Education Center (formerly Disability Services) in 164 Oregon Hall at 346- 1155 or uoaec@uoregon.edu.

**Inclusion and Collegiality:** Our community values inclusion. We are committed to equal opportunities for all faculty, staff, and students to develop individually, professionally, and academically regardless of ethnicity, heritage, gender, sexual orientation, ability, socio-economic standing, cultural beliefs and traditions. We are dedicated to an environment that is inclusive and fosters awareness, understanding, and respect for diversity. If you feel excluded or threatened, please contact Dean of Students Jennifer Espinola at espinola@uoregon.edu or 541-346-1557.

**Academic Integrity**: Students are expected to demonstrate high levels of academic integrity and professionalism, and are prohibited from committing or attempting to commit any act that constitutes academic misconduct. Plagiarism and other forms of academic dishonesty will be grounds for automatic failure in the course. If you have questions about conduct please ask your instructor or review the University Student Conduct Code or the UO Policy.

**Attendance:** The law school has the following attendance policy: The School of Law believes that dependability and punctuality are essential characteristics of a good lawyer and that the development of good professional habits is essential for legal education. Students are expected to attend all classes and arrive punctually. JD and LLM students must attend a minimum of 80% of scheduled class meetings. While additional absences may be excused by the instructor, they must be supported by a written, reasonable and (where appropriate) properly documented justification. Individual instructors may adopt a stricter attendance policy, in which case the instructor must include the policy in the course’s syllabus. Penalties for failing to comply with governing attendance requirements include, but are not limited to, grade reduction and denial of course credit. Students are responsible for monitoring their own attendance, and no advance notice is required for the imposition of a penalty.

Because we meet once a week,attendance is mandatory.If students must miss class for some extraordinary reason (e.g., illness), please email the instructor by 8:00 A.M. the morning of the class anticipated to be missed.

**Participation**: Students will be expected to prepare for and engage actively in class. Student participation contributes to learning as well as to the learning of student colleagues. Part of the final grade will be determined by your participation.

**Pronouns:** Self-expression and self-identification is one of our professional and personal values. One way to practice these values is to share gender pronouns. Sharing pronouns also enables each of us to avoid making assumptions about each other, and in this way, we are able to communicate in a more authentic manner. We welcome community members to share their pronouns. Note that most of the materials we will read, as well as much of our discussion in class, will use the pronouns “he/him/his” or “she/her/hers.” Gender is not binary, and some people prefer to use “they/them/their” or “ze/zir” for individuals. We try to limit the use of pronouns in written material and class discussion, but when pronouns are necessary, having a singular pronoun match a singular noun may be important for clarity. For more information on gender identity, please visit the LGBTQA3 office, http://dos.uoregon.edu/lgbt.

**Email**: The instructor will try to respond to all email within 48 hours of receiving them. It is, however, becoming increasingly difficult to keep up with the quantity of email, so please review Canvas and the syllabus prior to sending a note about course logistics. In addition, make sure to check your UOregon.edu email account – the instructor will use this email address to communicate with the student. **Please add the course number in the subject line of email correspondence with the instructor.**

**Late Assignment Policy:** If the student is unable to make it to class on the day an assignment is due, please email the assignment to the instructor prior to the class time and date that assignment is due. Late assignments receive only partial credit. It is only fair to the other students, and to the instructor, all of which have other courses and jobs.

**Incomplete Policy:** Incompletes are rarely considered by the instructor because so few students actually complete them. However, if a student is successful in negotiating an incomplete, students are expected to behave in a professional manner and to turn in all materials at the designated time. In accordance with university regulations, an incomplete will be given only when “the quality of work is satisfactory but a minor yet essential requirement of the course has not been completed for reasons acceptable to the instructor.”

**Computer Use:** Computers are permitted in class for note taking only and the online simulation. Computer use other than taking notes and the online simulation detracts from the learning experience for all parties in the course. If you are found to be using your computer or smartphone for email or internet use, you will probably be asked to visit with the instructor after class.

**Building Safety:** Emergencies are rare, but if they happen, we must know how to respond effectively and efficiently. The University's Emergency Management and Continuity group provides extensive resources for emergencies (see http://emc.uoregon.edu/). Please review these materials when you can, with special emphasis on the following:

• Identify all the exits in each of your classrooms;

• Practice being aware of your surroundings at all times; and

• Familiarize yourself with the basic procedures around earthquakes ("duck, cover, hold" at https://www.youtube.com/watch?v=O-MycATjypg) and active shooter situations ("run, hide, fight" at http://emc.uoregon.edu/content/active-shooter-situations).

We are all responsible for the safety and well-being of our community. For more on emergency procedures and building safety, please talk with me about the situation in our classroom, with Dean of Students Jennifer Espinola or with Erica Daley, Associate Dean for Finance and Operations.

**Instructor’s Reporting Obligations:**

**Prohibited Discrimination and Harassment Reporting**

Any student who has experienced sexual assault, relationship violence, sex or gender-based bullying, stalking, and/or sexual harassment may seek resources and help at safe.uoregon.edu. To get help by phone, a student can also call either the UO’s 24-hour hotline at 541-346-7244 [SAFE], or the non-confidential Title IX Coordinator at 541-346-8136. From the SAFE website, students may also connect to Callisto, a confidential, third-party reporting site that is not a part of the university.

Students experiencing any other form of prohibited discrimination or harassment can find information at respect.uoregon.edu or aaeo.uoregon.edu or contact the non-confidential AAEO office at 541-346-3123 or the Dean of Students Office at 541-346-3216 for help. As UO policy has different reporting requirements based on the nature of the reported harassment or discrimination, additional information about reporting requirements for discrimination or harassment unrelated to sexual assault, relationship violence, sex or gender based bullying, stalking, and/or sexual harassment is available at Discrimination & Harassment.

Specific details about confidentiality of information and reporting obligations of employees can be found at titleix.uoregon.edu.

**Mandatory Reporting of Child Abuse**

UO employees, including faculty, staff, and GEs, are mandatory reporters of child abuse. This statement is to advise you that your disclosure of information about child abuse to a UO employee may trigger the UO employee’s duty to report that information to the designated authorities. Please refer to the following links for detailed information about mandatory reporting: Mandatory Reporting of Child Abuse and Neglect.

**COURSE REQUIREMENTS AND GRADING**

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| --- | --- |
| **Requirement** | **% Grade / Points** |
| Participation | 7% |
| Reflective Writing Essays | 15% (There are five) |
| Short Papers | 30% (There are three) |
| Three Questions | 8% (8 groups of 3 total) |
| Assessment Paper | 40% (There is one) |

**Grading Scale**

The class will not be graded on a curve. Using this approach, the number of students receiving the same grade is not restricted. A+ grades are not awarded except in exemplary cases as determined by the instructor.

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| 100% - 93% A  92.9% - 90% A-  89.9% - 87% B+  86.9% - 83% B  82.9% - 80% B-  ----------------------------  79.9% - 77% C+  76.9% - 73% C  72.9% - 70% C- S  ----------------------------  69.9% - 67% D+  66.9% - 63% D  62.9% - 60% D-  ----------------------------  59.9% - 0% F |  |
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**Assignments**

Grading rubrics for each assignment appear in the Appendix.

* **Reflective Writing Essays.** The student will be writing seven reflective essays over the term. Each essay will provide a personal reflective commentary on the content and learning activities for a specific period of the course (e.g., reflection for Week No. 1 due during Week No. 2, etc.). When thinking about the essay, consider what course content (readings, lectures) and activities were most meaningful. Why? How? Reflect on content and activity that stood out or considered to be important, relevant, insightful, confusing, controversial, debatable, etc. Please draw from learning activities (e.g., the best and worst headlines introduction exercise, situation mapping); lecture content (e.g., appropriate collaboration, systems thinking); readings (e.g., Moore chapters, other assigned readings); video materials; or class discussion. Each reflective writing submission must be typed. Submit as hard copy or electronically (before Friday class) to toddj@uoregon.edu
* **Short Papers on Simulations.** This course uses simulations and other forms of experiential learning to highlight the practical and philosophical challenges of the field. (Descriptions of the simulations appear in Appendix 4.) Selected simulations will require you to prepare a short paper. Each short paper will likely be about 4 to 6 pages double spaced, 10, 11, or 12 font, and is due via email no later than one week after the simulation is complete. When appropriate, draw upon course readings when developing the analysis. Follow the instructions for these papers provided in Appendix 2.
* **The Three Questions.** Starting Week 2, each week each student will email three course-related questions to discuss during class. These questions can come from class readings, lectures, activities, or focus on general questions related to professional practice. Please write questions that are focused and clear. Questions are due Thursday afternoon via email to the instructor. Why this schedule? The instructor will attempt to answer your questions during class.
* **Final Assessment Paper.** Environmental public policy conflict, negotiation, and decision situations are complex. Environmental public policy conflict situations are also dynamic: fluid, evolving, changing. In this paper, please discuss the "dynamic complexity" of environmental public policy conflict situations. Follow the instructions for the final assessment paper provided in Appendix 3. The paper should be about four to six pages long, double-spaced. Please include a complete list of all the references used in preparing the final assessment paper using a consistent format appropriate for the student’s field of expertise.

**COURSE SCHEDULE**

**Week Topic(s) Relevant Readings & Milestones**

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| 1. Business Matters | * Course introduction * Crash Course on Mediation/Negotiations * Oregon “schools” of thought/practice * Barriers to ECR * Lawrence Susskind, video * Safety Issues * In class - Salmon Simulation | Common Ground – Chaps. 1-2 (pp.1-22)  The Little Book of Conflict Transformation (pp.1-16)  Environmental Conflict Management – Chap. 1 (pp.1-10) |
| 2. Listening & Trust | * Other Negotiation Frameworks * Larry Susskind Blog – Consensus Building Approach – [Games and Climate Change](http://theconsensusbuildingapproach.blogspot.com/2012/12/can-games-really-change-course-of.html) | Common Ground – Chaps. 3-4 (pp.23-68)  Environmental Conflict Management Chap. 2 (pp.11-21 & pp.167-172)  **Reflective Essay Due on Friday**  **Three Questions Due on Thursday afternoon by email.** |
| 3. Mapping, Coalitions, & Identity | * The nature of systems, systems thinking, and tools * in class - “Mapping” a video - Tribal Water Rights * Share your map with the class | Common Ground – Chap. 5 (pp.68-86)  Environmental Conflict Management Chaps. 4-5 (pp.41-70)  Daniels & Walker, CL book, ch. 6  (pp.99-129)  **Reflective Essay Due on Friday**  **Three Questions Due on Thursday afternoon by email.** |
| 4. Partnerships  & Collaboratives  Role Playing | * In class – Land Use, Water, Recreation, or Forests? Welcome to Cabbage Mountain. | Common Ground – Chaps. 6-7 (pp.87-116)  Environmental Conflict Management - Chap. 3 (pp.23-41)  **Reflective Essay Due on Friday**  **Three Questions Due on Thursday afternoon by email.** |
| 5. Negotiating | * Use of Serious Games * In class - Santiago Serious Game * Other games as class time permits | Common Ground – Chap. 8-9 (pp.117-146)  Environmental Conflict Management - Chap. 6 and 9 (pp.71-90; pp.121-140)  **Reflective Essay Due on Friday**  **Three Questions Due on Thursday afternoon by email.** |
| 6. Midterms | * Check in on Assessment Paper Selections * Future of online practice - new friends @ summer course at Santa Clara Law School with guest mediator Lynn Johnson * In class - Online Simulation - Trash Trouble | **Three Questions Due on Thursday afternoon by email.**  **Week 4 Short Paper Due on Friday**  **No Reflective Essay.** |
| 7. Assessments & Science | * Stakeholder Assessments * Scientific Mediation * Case Study - Coos Bay Watershed Assessment * Case Study - Nuisance Flooding and Role of Expertise * In class - Dueling Experts | **Three Questions Due on Thursday afternoon by email.**  **Week 5 and 6 Short Papers Due on Friday**  **No Reflective Essay.** |
| 8. Meetings | * Out of class viewing - Case Study: The Role of Video - Umatilla Basin * In-class - Case Study: [Bad Meetings](https://media.oregonstate.edu/media/t/0_wv57dv82) – Cascade Locks & Bottled Water * In-class - View competing video narratives on Cascade Locks bottling plant * In class - Design a meeting for Nestle | Common Ground – Chap. 10-11 (pp.147-178)  Video Online - [Water Before Anything](http://www.thewaterchannel.tv/media-gallery/1891-water-before-anything-crisis-and-transformation-umatilla-groundwater?category_id=769)  Environmental Conflict Management – Chap. 8 (pp.103-120)  **Reflective Essay Due on Friday**  **Three Questions Due on Thursday afternoon by email.** |
| 9. Thanksgiving Holiday | * No Class | **Finish work on Assessment Papers - due the following week.** |
| 10. Pracademics & Young Professional Visit | * Libby Morrison - Sand and gravel mining conflicts & starting out after graduation * Roundtable debriefing – What is your paper about? * Public involvement design options and tools – next steps | Common Ground – Chap. 12 (pp.179-192) Environmental Conflict Management – Chaps. 11-12 (pp.161-186)  **Three Questions Due on Thursday afternoon by email.**  **Assessment Papers due by Friday** |

**APPENDIX 1 – GRADING RUBRICS**

**For Participation (7% or points max):**

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| --- | --- | --- | --- | --- |
|  | **Far Below Standards** | **Satisfactory** | **Good** | **Excellent** |
| **Points Available** | **0-2** | **3-5** | **5-6** | **6-7** |
| **Peer Interaction** | Virtually no interaction with peers | Limited interaction with peers | Makes a sincere effort to interact with peers (ongoing) | Actively Supports, engages and listens to peers throughout term |
| **Participation** | Comments vague if given at all; frequently demonstrates a lack of interest | Sometimes participates constructively in group work and class discussions, sometimes goes on auto-pilot | Participates constructively in group work and class discussion throughout the term | Plays an active, dynamic role in discussions and group work throughout the term |
| **Contributions to Class** | Demonstrates a noticeable lack of interest on occasion | Comments are sometimes irrelevant and do not advance level and depth of class dialogue | Comments in class discussions are relevant and based on assigned material, and generally help the dialogue along | Comments consistently advance level and depth of dialogue in class discussions |
| **Group Dynamics** | Group dynamic and level of discussion are often notably disrupted by student’s presence | Group dynamic and level of discussion are sometimes disrupted by student’s presence | Group dynamic and level of discussion are often enhanced, but never made less effective because of student’s presence and contributions | Group dynamic and productivity are always enhanced by student’s presence and contributions |

**For Three Questions:**The grade for the three questions will be based on the following:

* Content – 100%
  + Does the content demonstrate thoughtful inquiry into the subject?

**For Reflective Writing Essays:**The grade for reflective papers will be based on the following:

* Content – 50%
  + Does the content demonstrate thoughtful inquiry into the subject?
* Writing – 40%
  + Is the overall structure logical, coherent, well-organized? Do the paragraphs move the reader in a logical way from introduction to conclusion?
    - Effective use of paragraphs
  + Are the sentences well constructed?
    - Are the sentences complete sentences?
    - Does the writer avoid run-on sentences?
    - Do the sentences flow well?
    - Do the sentences make sense?
  + Is the grammar sound?
    - Do nouns and verbs agree?
    - Are sentences in the correct verb tense?
    - Do pronouns have clear referents?
    - Does the writer use the singular and plural forms consistenly?
    - Are words spelled properly?
    - Are sentences properly punctuated?
* Professional approach – 10%
  + Professional formatting
  + Professional tone

**For Short Papers:**

The grade for short papers will be based on:

* Content – 50%
  + Cogent reaction and evaluation
  + Well-developed conceptual analysis. Conceptual analysis involves discussing the simulation experience in light of relevant concepts, theories, and practices. The simulation provides an opportunity for "testing" such ideas.
* Writing – 40%
  + Is the overall structure logical, coherent, well-organized? Do the paragraphs move the reader in a logical way from introduction to conclusion?
    - Effective use of paragraphs
  + Are the sentences well constructed?
    - Are the sentences complete sentences?
    - Does the writer avoid run-on sentences?
    - Do the sentences flow well?
    - Do the sentences make sense?
  + Is the grammar sound?
    - Do nouns and verbs agree?
    - Are sentences in the correct verb tense?
    - Do pronouns have clear referents?
    - Does the writer use the singular and plural forms consistenly?
    - Are words spelled properly?
    - Are sentences properly punctuated?
* Professional approach – 10%
  + Professional formatting
  + Professional tone

**For Final Assessment Paper:**The grade for the assessment paper will be based on:

* Content – 50%
  + Does the content demonstrate thoughtful inquiry into the subject?
  + Does the content make reference to the assigned readings and the instructor’s in-class presentation?
* Writing – 40%
  + Is the overall structure logical, coherent, well-organized? Do the paragraphs move the reader in a logical way from introduction to conclusion?
    - Effective use of paragraphs
  + Are the sentences well constructed?
    - Are the sentences complete sentences?
    - Does the writer avoid run-on sentences?
    - Do the sentences flow well?
    - Do the sentences make sense?
  + Is the grammar sound?
    - Do nouns and verbs agree?
    - Are sentences in the correct verb tense?
    - Do pronouns have clear referents?
    - Does the writer use the singular and plural forms consistenly?
    - Are words spelled properly?
    - Are sentences properly punctuated?
* Professional approach – 10%
  + Professional formatting
  + Professional tone

**APPENDIX 2 – SHORT PAPER INSTRUCTIONS**

Selected simulations listed in the Course Syllabus will require you to write a short paper. Follow the instructions for these papers in Appendix 2. Each short paper will likely be about 4 to 6 pages double spaced, in 10-, 11-, or 12-point font. When appropriate, draw upon course readings when developing the analysis.

**Part One - Description and Reflection**

Please include the following:

1. Assigned role. What was the student’s assigned role in this simulation? How central was the assigned role to the situation? Was the assigned role a critical stakeholder? Why or why not?
2. Assigned role objectives. What were the assigned role objectives in this situation? What did the assigned hope to achieve? Why?
3. Collaborative potential. What was the collaborative potential of this situation? Explain how the assigned role assessed the collaborative potential.
4. Incentives. What incentives did the assigned role have to collaborate with other stakeholders? What incentives did the assigned role have to complete? What was the assigned role’s “BATNA”; best alternative to a negotiated agreement? In other words, what is the assigned role’s best alternate course of action if multi-stakeholder collaboration does not work?

**Part Two - Reflection and Analysis**

Please discuss what you learned from the simulation, if anything, about controversial natural resource conflict/decision situations and their management. Please analyze the simulation activity in terms of relevant conflict resolution, negotiation, management, planning, and systems concepts. Make direct reference to course readings and class materials where appropriate. Please consider some of the following specific issues. (These are suggestions, not requirements.)

1. Was the simulation a conflict situation? If so, what was the nature of the conflict situation? What were its substantive, procedural, and relational elements?
2. Were there any structural constraints in this situation, such as scarce resources, legal concerns, or jurisdictional concerns?
3. Was this conflict situation in any way(s) complex? Was consensus desirable or feasible?
4. To what extent was this conflict situation political? Biological? Physical? Economic? Cultural? Social? What environmental conflict situation system areas were relevant here?
5. Did parties take a “systems” perspective? Would “systems thinking” or systems intelligence” work be productive?
6. Was negotiation appropriate in this situation? Were there collaborative potential? Were there clear incentives to negotiate or interact competitively or collaboratively?
7. The simulation asked you to consider a number of issues. Could issues be arranged in a significance or priority order? Would a decision matrix help? Why or why not?
8. Did the conflict management or decision process evolve in any pattern or develop according to any identifiable stages or phases?
9. What conflict management climate emerged? Were parties oriented toward self-interest?
10. Did parties’ interactions reflect an interest-based orientation? An identity-based orientation?
11. Did power play a role in the simulation? What was the nature of the power? Did the decision-making and negotiation interaction reflect a "level playing field?"
12. Were meaningful agreements reached? About what? How? Were the outcomes “mutual gains”?
13. Were certain types of knowledge or intelligence featured in the simulation interaction? Was “traditional” knowledge considered? Was “technical” knowledge emphasized?
14. Were decision-making rules employed? How were they generated? Did the discussion need more or less structure?
15. Were coalitions or alliances possible? Did they emerge? Should they have? Were they productive?
16. Was some kind of outside intervention (mediation or facilitation) warranted? Why? How might such intervention have been incorporated?
17. To what extent was communication constructive and progressive?
18. What other conflict management issues are pertinent to analyzing this simulation?
19. What frameworks, if any, stand out in this simulation/situation?
20. What, if any, is the value of this simulation as a learning experience?
21. How could the simulation be improved?

**APPENDIX 3 – FINAL ASSESSMENT PAPER INSTRUCTIONS**

Public policy conflict, negotiation, and decision situations are complex. Public policy conflict situations are also dynamic: fluid, evolving, changing. In this paper, you will discuss the "dynamic complexity" of public policy conflict situations.

The paper includes both visual and narrative components. Here are the paper guidelines:

**First:** Select a public policy conflict, negotiation, or decision situation for your self-guided field trip study. This situation could be local (e.g., land use and property rights along the McKenzie River), state (e.g., Lower Willamette River Superfund site designation, the Umatilla Basin water situation), regional (e.g., Columbia River water quality and treaty renegotiations), national (e.g., hydrofracking), or international (e.g., climate change negotiations). The conflict can also be depicted in a documentary video, or the topic can be selected from one of the many other conflicts discussed in the course.

**Second:** Research the policy conflict, negotiation, or decision situation. Interview stakeholders. Find a set of articles on the situation. The research needs to be reasonably comprehensive but should not be extensive or exhaustive. Stated differently, three to four interviews, four or five different sources (e.g., magazine articles, internet sites, newsletters, journal essays, book chapters) may be adequate.

**Third:** Describe the policy situation systemically, that is, as a system and/or set of subsystems. The description should be both visual and narrative.

The visual description: Based on your understanding of the policy situation and your understanding of human activity systems, create a "rich picture" of the situation. Your rich picture can be a situation map, a systems diagram, a cartoon, a mind map, or some other systems visualization technique. Your visual description may emphasize some or all of the components of a system, such as elements, inputs, outputs, relationships, and emergent properties.

The narrative description: In addition to a visual description of the policy situation selected, provide a narrative (written text) description of the situation. The written description, like the visual description, could feature some or all system components. Please think of your narrative description as a written explanation of the visual description.

**Fourth:** Reflect on the systems analysis experience. Please consider the following questions:

* What, if anything, was learned from attempting to understand the specific policy situation systemically?
* Did the systems analysis reveal anything that was not obvious in the situation?
* Did the systems analysis suggest any possible directions for conflict resolution or negotiation, such as points of intervention or resolution methods?
* Did the systems analysis process help systems thinking?

This paper should be about four to six pages long, double-spaced. Please include a complete list of all the references you used.

**APPENDIX 4 – SIMULATIONS**

**Games, Role Plays, Simulations, Observations**

Weekly or bi-weekly experiential learning activities will be conducted depending on student interests. One small group will participate in an online ECR simulation using International Communication & Negotiation Simulations through the University of Maryland. Others (up to five in a group) may play Santiago and/or the Water Message Game.

**Santiago**. Some kilometers west of the African mainland lies the Cape Verde Island of Santiago. The climate is hot, and every drop of water is precious. Every player buys at auction certain plantations (potatoes, beans, paprika, bananas, and sugar cane) and tries to connect these to others in order to unite and enlarge their holdings. Plantations must quickly be connected to the canal irrigation system so that they do not dry up completely and fail to produce any yield. Bribes to the Canal Overseer are necessary in order to insure that the canal system connects to your own plantations. The sooner that a plantation is irrigated and is connected to other plantations of the same type, the more yield—and thus the more money—will be gained at the end of the game. The one who wins will be the one who most skillfully acquires plantations, irrigates them, and connects them to lucrative plantations of the same type.

**Water Message Game.** Groups communicate with each other through messages written on paper, which are exchanged simultaneously through a neutral facilitator. In total, messages are exchanged seven times, so the game consists of seven rounds. No other means of communication are allowed, except after round 3 and after round 6, when each group may decide to negotiate with the other party and nominate a negotiator. However, this negotiation can proceed only if both groups decide to negotiate. The messages that are exchanged concern the use of a shared water body such as a lake or an aquifer. Each message round starts afresh and is independent of any message sent earlier.

**Online Simulation - Trash Trouble: Development Politics in St. Ann.** The World Bank’s office for Latin America & The Caribbean has recently indicated its intention to invest in public waste management infrastructure in developing nations within the Caribbean. The importance of waste management in these countries has become more paramount due to the recent enactment of a new international agreement, the Protocol Concerning Pollution from Land-Based Sources and Activities (more commonly known as the LBS Protocol), which establishes minimum standards for waste management for Caribbean countries.

Students will log in to a password protected online simulation system. They will be able to review the simulation scenario and a private role sheet for their team there. They will also see a map of the fictional “St. Ann.” When the negotiation begins, they will be able to communicate with the other teams by sending messages within this system. They will also be able to submit proposals using a special form in the system. The proposals are their plans for how they want to address the issues presented in the scenario. They can continue to edit those proposals, based on the feedback of the other teams. At the end of the simulation, the teams vote on the available proposals to see whether an idea has gained enough support to move forward. Throughout the simulation, the instructor will play the role of Simcon (the online simulation facilitator). Simcon can see all of the communication exchanges between teams and can also select from a variety of pre-loaded news stories and events to send out to the participants to stir things up in the negotiation.