

Group Project: Co-designing solutions to water-related problems

Overview

Multidisciplinary student groups will work with stakeholder groups to co-design a solution to a water-related problem within the Grand River Watershed (GRW). Students will learn about the stakeholders' concerns to identify a key problem (or question), and then research various ways to solve the problem (or answer the question). Students will create a proposal for their stakeholder groups that describes the problem, optional solutions, why the solution they are proposing is the best, and the steps required to apply the solution. Students will also present their findings at a networking event hosted by the Water Institute that all stakeholder groups will be invited to.

Mark breakdown

- Group formation: 10%
- Problem identification: 25%
- Solution proposal: 25%
- Group presentation: 25%
- Stakeholder feedback: 15%

Project Details and Timelines

Workshops and Field Visits: August 29th to September 2nd:

- Students will participate in workshops that provide knowledge mobilization and communication skills that they will apply during their group projects.
- Students will participate in field visits that highlight all potential case studies for the group project. Students will take notes on all potential case studies in preparation for being assigned any of the case studies.

Group Formation (5%): September 2nd

- Students are responsible for forming their multidisciplinary groups at the end of day on September 2nd. To receive full marks, students must form their group following the criteria outlined by the course instructors on August 29th.
- It is the responsibility of each student to get to know their colleagues throughout the first week of the course to be able to form their group at the end of the week.
- Once groups are formed, they can submit their top choices for case studies. Case study selection must be completed by gaining group consensus (something to consider when forming your groups).

Stakeholder Introductions and Project Kick-Off: September 6th to 9th

- Groups will contact their stakeholder organizations to introduce themselves and schedule their first meeting. Course instructors will be cc'd on the introductory email to ensure stakeholders have been contacted.

Problem Identification (30%): September 30th

- Students will work with their stakeholder group to understand their concerns and identify **one** specific problem (or key question).
- Students will submit a document that describes the particular problem they will be addressing. The document will be a maximum of 1,300 words plus reference list.
- Students will submit their problem identification as a Word document through LEARN by midnight on September 30th.

Solution Proposal (30%): October 28th

- Students will research possible solutions to the identified problem.
- Students will work with their stakeholder partner to select a solution that would be feasible and supported by the stakeholders. For example, dam removal is not an acceptable solution if the stakeholder group is opposed to dam removal.
- Solutions do not have to be the *final solution*, but can simply be the next step the stakeholder group needs to take to identify the final solution. Solutions can include, but are not limited to:
 - monitoring programs,
 - restoration initiatives,
 - research projects, or
 - education campaigns.
- The students will prepare a proposal that clearly describes:
 - the problem,
 - why the problem is important to solve,
 - the solution options,
 - the selected solution and why it is the best option, and
 - next steps to applying the solution.
- The solution proposal will be written using non-technical language for the stakeholder groups to gain support for the solution from their members, the public, or funding agencies. Students are encouraged to discuss the format of the proposal with their stakeholder group to identify a format that will work best for their needs.
- Students will submit their solution proposal as a Word document through LEARN and as PDF document emailed to their stakeholder groups (course instructors cc'd) by midnight on October 28th.

Group Presentation (30%): October 28th

- Students will present a 15-minute talk about their group projects at a networking event hosted by the Water Institute on October 28th.
- All group members are expected to participate during the presentation.
- The group presentation will include the following:
 - Case study overview
 - Methods used to understand the stakeholder group's concerns and formulate a key question (i.e., problem formulation)
 - Description of the problem
 - Description of the proposed solution, including rationale (justification)

- Next steps for the stakeholder group after the proposed solution

Stakeholder Feedback (5%): November 15th

- Course instructors will send each stakeholder group a survey on October 31st to complete by November 15th.
- Stakeholder groups will be asked to complete the survey with input from all members who interacted with the students.
- The surveys will be returned directly to the course instructors who will share the results with the students.
- The survey will ask the stakeholder group to provide feedback on the following:
 - Did the students respond to emails and phone calls in a timely manner?
 - Were the students respectful of the members' time?
 - Were students polite and respectful to all members?
 - Did student receive feedback well?
 - Did the students identify a problem based on the members' concerns?
 - Did the students propose a solution that the members supported and would be interested in using?