



## D1: Student Profile and Project Selection

**Due:**

**Deliverable:**

1. Student profile including:
  - a. (Aspired degree) in (program) (if applicable)
  - b. 3 main skills or strengths
  - c. Phone number, email address, skype name
2. Project selection
  - a. Read project briefs
  - b. Rank 3 top projects in order of interest (1, 2, 3)
    - i. Please include evaluative matrix
3. A short paragraph explaining how your skillset applies to this project and what you hope to learn.

**Objectives:** Students learn how to choose between different alternatives, form project groups

**New tools:** Evaluative matrix

**Guiding questions:**

- 1) What's important to you? What relevant skills and experience do you have? What do you want to learn? Think about your role working in underserved communities.



## D2. Project Framing A: Initial Project Statement and Overview

**Due:**

**Deliverable:**

1. Project Goal & Scope Statement (single page, as team)
2. Assign communication officer for team, identify best way to communicate with client

**Objectives:** Establish communication with client, articulate client's situation using 4 lenses

**New tools (list):** 4 Lenses of Sustainability, Group Protocol

**Guiding questions:**

- Project goal statement should answer:
  - o Who Are You? What is the Need? Who are you addressing it for? Why is it important? (1-2 sentences that evolve as you learn more).
- Using 4 lenses (Environment, Economics, Society, and Technology) take a broad look at your client's situation, do some initial research, and articulate briefly:
  - o Who is the client/what is their business?
  - o What are the project goals? Why?
  - o Who is the target market/customer?
  - o What are any known considerations and assumptions?
  - o What are any known benchmarks?
  - o What is the approximate timeline?
  - o What do you think are the final deliverables?



### 3. Project Framing B: Considerations & Research Directions

**Due:**

**Deliverable:**

1. 1 page with project considerations (as team)
2. Identify and assign sectors for each teammate to research (as team)
  - a. Include initial brainstorm list
3. Annotated bibliography with 3 relevant articles as research leads (individual)
  - a. Use an electronic citation software such as EndNote or Mendeley. Agree on software as a team and make sure formatting is consistent

**Objectives:** Identify the most important “need to know” issues to move forward with project

**New tools:**

**Guiding questions**

- For project considerations (use four lenses):
  - What do we value?
  - What are the needs we are trying to meet or the problems we seek to address?
  - What are the design considerations that come from those values?
  
- For sector research:
  - What are the specific technical, social, environmental, and financial considerations?
  - What are the gaps in your client’s knowledge?
  - What sectors is it necessary to research? Each teammate pick one.
  - What are the gaps in knowledge we must fill?



#### D4. Project Framing C: Evaluative Table

**Due:**

**Deliverable:**

1. Evaluative Table defining objective functions you are trying to minimize or maximize; the target values; and the analytical tools you will use
2. Revised project goal & scope statement, deliverable

**New tools:** LCA, economic analysis, logframe (monitoring & evaluation), stakeholder analysis (Look at 4 lenses)

**Guiding questions:**

1. Identify the objective functions you are trying to minimize or maximize
2. What are the weak links in the project? Identify the analytical tool(s) that will strengthen them and choose.
3. What is the End Deliverable? What will be your methodology? What is your scope? Constraints and boundaries? Timeline? Budget?



## D5. In-Depth Research: Sector Paper

### DUE:

This is meant to be a straightforward and useful Literature Review, research not opinion. Write a **five-page paper** (double-spaced not counting figures, tables, or pictures and please include these as appropriate) describing the current state of affairs in a sector relevant to the project. Examples: Geography, Climate, Economy, Politics, Agriculture, Energy, Environment, Manufacturing, Micro-finance, Micro-enterprise...

By now you need to have conferred with teammates about this so as to have no overlapping research. This information will be part of your group's presentation.

Discuss projects that are happening in that sector and why it is relevant to your project. You may choose to focus on a sub-sector (for example: Irrigation and water rights rather than all of agriculture, or wind energy rather than all of energy). You can also look at technologies that are being used in other parts of the world that could be applied in your country. Your paper should provide a concise summary of the sector (or sub-sector) and provide useful background information for field projects in that sector.

Be sure to include references and citations from a variety of sources including peer-reviewed publications. Websites, when used, must be referenced correctly. Sector papers are evaluated on a basis of: **relevance** of content, **clarity** of the writing (grammar, spelling, and coherence, tell the reader what you are going to say, say it, then tell the reader what you said!) **quality** of the research, in other words properly cited sources that are not Wikipedia.



## D6: Mid-Quarter Presentation

**Due:**

### **Presentation 1**

7 minutes (you will be cut off) to go over:

1. Project Statement
2. Framing
3. Research Findings
4. Proposed Methodology.

Team will get feedback from mentors and reviewers. Assign a note taker to document this feedback and receive it graciously. Visual Aides can include posters, slideshows, etc.

Presentations are evaluated on a basis of: **clarity** of framing, **relevance** of content and **delivery**.



## D7: Draft of Presentation

**Due:**

**Deliverable:**

1. Show rough draft of presentation to your project mentor at least 3 days before presentation.

## D8: Final Presentation

**Due:** 3/14

**Deliverable:**

7 minutes (you will be cut off) to go review Project Statement, Framing, Research Findings, however bulk of presentation should be on Methodology and Results.

Team will get feedback (7 minutes) from mentors and reviewers. Assign a note taker to document this feedback because you must integrate the feedback into your report. Visual aids can include posters, slideshows, etc. Evaluated based on **clarity** of framing, **relevance** of content and **delivery**.

**1. Final Problem Definition** Problem definition has likely evolved over the quarter. The last iteration of your pitch should reflect a well-honed and clear problem definition.

**2. Background** Your sector papers synthesized, distilled to the key insights. Frame your problem using the 4 lenses of sustainability. This should be enough background in other words, no introductions of your client's country facing climate change!

**3. Methodology** If the first presentation was to say what you were going to do, here is where you tell the panel what you did and how you went about it. One of several methodologies you used may have been the Evaluative Matrix for your Technological or Prior Art Review. How you arrived at your criteria and weighted them would be part of your methodology. The table showing the best option goes in results...

**4. Results** These are the fruits of your labor, the answer to the question, the newest prototype(s.) Show and tell where appropriate! Any result is a good result.

**5. Recommendations** Looking at your results in light of the research you did. Next steps for you and/or client in regards to this project, does it go to D-Lab II? What questions remain or what new questions came up?



## D9: Final Report

### Due:

Report must include:

- 1. Executive Summary:** 1 page that covers the whole project. Anyone should be able to read that and understand the whole study.
- 2. Introduction:** Finalized project statement, relevant background information (sectors literature review distilled down to the key insights, no general info that is unrelated to the project, we all know climate change is happening.)
- 3. Methodology:** What you did and how you went about it. Analytical tools and how you used them. Was it a Life Cycle Analysis?
- 4. Results and Discussion:** Results of whatever methodology was carried out and discussion that relates these results to the research you did.
- 5. Recommendations** for moving forward. Does the project live on in D-Lab 2? What are the next steps for your client?
- 6. References:** Cite sources thoroughly and consistently.
- 7. Appendices:** Photographs, maps, sketches, and any additional material that is relevant, but might interfere with the readability of your report. Not just a copy paste of sector papers, unless absolutely relevant.

Final papers are evaluated on a basis of: **relevance** of content, **clarity** of the writing (grammar, spelling, and coherence, tell the reader what you are going to say, say it, then tell the reader what you said!) **quality** of the work. The less work we have to do on a paper before sending it to a client or posting it online, the higher its marks!